



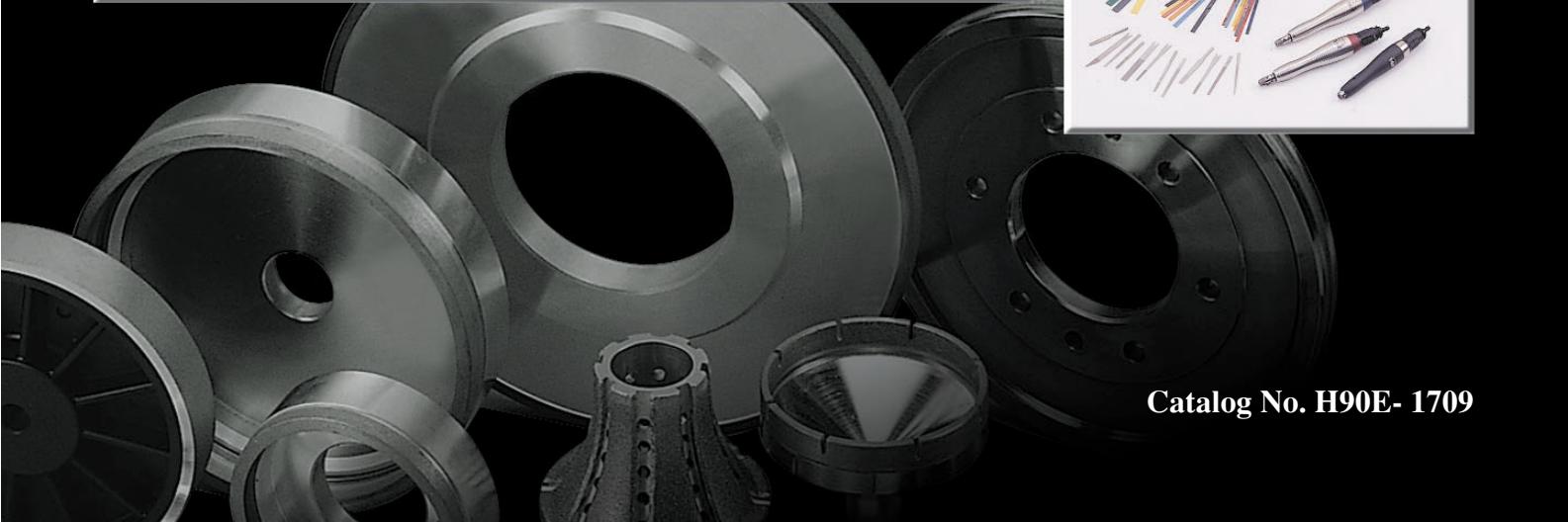
## Super Abrasive Wheels

Vitrified, Resinoid, Metallic & Electroplated

### For Tool Room

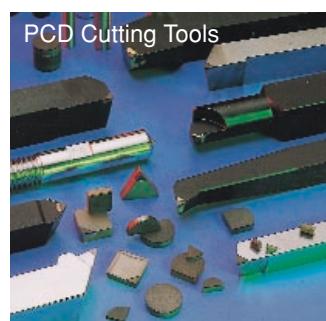
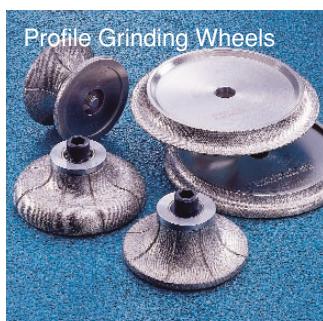
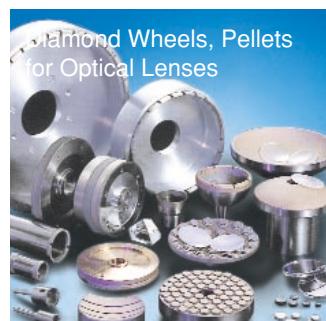
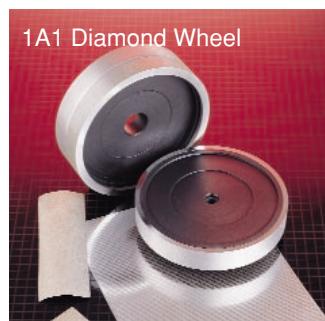
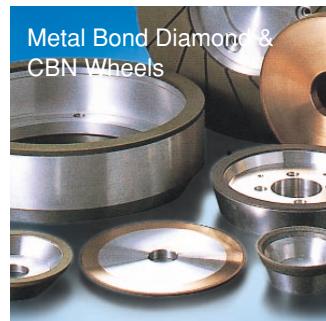
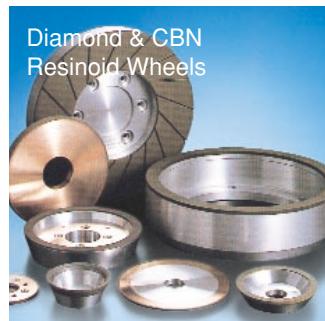
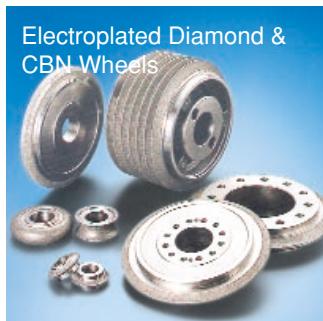
#### Main Products

- Diamond & CBN Wheels
- Diamond Tapered Hones
- Diamond Files
- Diamond Drills
- Diamond & CBN Mounted Point
- Diamond Cutting Saws
- Diamond Dressers
- Diamond Compound



Catalog No. H90E- 1709

# Products



## Company Profile

Hongia Industry Co., Ltd. was founded in 1978 with the goal of manufacturing high quality Diamond and CBN tooling.

Ever since Hongia has been the leader of electroplated diamond and CBN products in Taiwan, and is a reputable firm of diamond & CBN products in Asia.

Our company also offers the best OEM/ODM services. For further information or inquiries, please don't hesitate to contact us.

## Introduction

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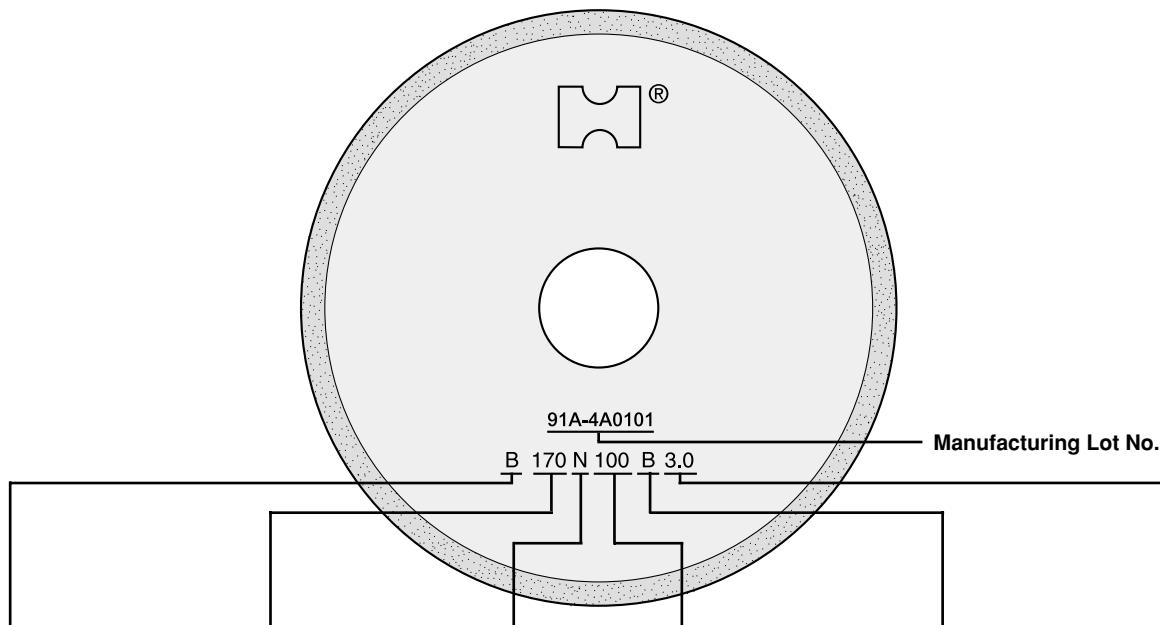
Diamond and CBN (cubic boron nitride), both have similar characteristics superior to conventional abrasives. They both provide high hardness, good wear resistance, high impact strength, and good thermal conductivity. Therefore they are called super abrasives.

## ■ Application Guide

Diamond wheels	CBN wheels
Tungsten Carbide	High Speed Steel
Carbide and Steel	Tool Steel
Cermet	Alloy Tool Steel
Cast Iron	Bearing Steel
Ceramics	Stainless Steel
Ferrite	Chromium Steel
Glass	Case Hardened Steel
Crystal, Gem Stone	Super Alloy
Stone	Heat Resistant Steel
Concrete	Special cast Iron
Tile, Roofing Tile	Alnico
Plastics, incl. Fiber Reinforced	Inconel & Steellite



## ■ HONGIA Typical Specification Markings



Abrasives	Grit Size	Grade	Concentration	Bond Type	Abrasive Depth
ND- Natural Diamond	#60	M	50	B: Resinoid	1/16** (1.6mm)
SD- Friable Diamond	#80	N	75	V: Vitrified	1/8** (3.0mm)
2D- Strong, Blocky Diamond	#100	O	100	M: Metal bond	1/4** (6.0mm)
3D- Very Strong, Blocky Diamond	#120	P	125	P: Electroplated	
3D- Very Strong, Blocky Diamond	#140	Q	150		
4D- Strongest, Blockiest Diamond	#170	R			
4D- Strongest, Blockiest Diamond	#200	S			
B-CBN	#230	T			
	#270				
	#325				
	#400				
	and Finer				

## ■ Abrasive: Recommended applications & grain size

Bond Abrasive		Vitrified (V)	Resinoid (B)	Metallic (M)	Electroplated (P)
Diamond	ND	Cemented carbide, ceramic, gem, stone, crystal, ferrite, etc. (#80~#400)	Non-ferrous metal, cemented carbide, ceramic, glass, quartz, ferrite, etc. (#80~#400)	Non-ferrous metal, cemented carbide, optical lens. (#60~#2000)	Carbon, glass, rubber, plastic, asbestos FRP, ferrite and dental tools, etc. (#40~#400)
	2D		Pure cemented carbide or ceramic wet grinding. (#80~#200) (#500~#20000)	Medium soft materials stone, concrete etc. in drilling, sawing, grinding. (#25~#60)	Cemented carbide, hard materials gem stone, ceramic, sculpturing tools, etc. (#40~#2000)
	3D	Precision grinding ceramic. (#60~#2000)	For combination grinding when 1/3 or more steel is combined with the carbide. (#80~#170)	Medium hard materials stone, concrete, refractories in drilling, sawing, grinding and polishing. (#25~#60)	Form grinding of stones. Rough grinding of terrazzo & refractories. Truing & dressing of conventional wheels. (#25~#60)
	4D			Hard materials stone, concrete, refractories in drilling, sawing, grinding and polishing. (#25~#60)	
CBN	B	Precision grinding and thread grinding for the difficult to grind ferrous materials. (#60~#1800)			
	2B	Precision grinding in applications which require exceptional wheel life in both hardened and soft ferrous materials. (#40~#1400)			

## ■ Grit Size

Coarse	Medium	Fine	Very Fine
#30. #40. #50. #60. #80.	#100. #120. #140. #170. #200. #230. #270.	#325. #400. #500. #600. #800.	#1000. #1500. #2000. #3000.

## ■ Expected RMS Finish

Rmax •  $\mu\text{m}$

Grit Size	Resinoid	Electroplated	Grit Size	Resinoid	Electroplated	Grit Size	Resinoid	Electroplated
# 80	24-30 $\mu\text{m}$	90-125 $\mu\text{m}$	#170	12-14 $\mu\text{m}$	24-32 $\mu\text{m}$	#400	6-8 $\mu\text{m}$	13-14 $\mu\text{m}$
#100	18-24 $\mu\text{m}$	64-90 $\mu\text{m}$	#200	10-12 $\mu\text{m}$	20-24 $\mu\text{m}$	#500	6 $\mu\text{m}$	12-13 $\mu\text{m}$
#120	16-18 $\mu\text{m}$	48-64 $\mu\text{m}$	#230	8-10 $\mu\text{m}$	16-20 $\mu\text{m}$	#600	5-6 $\mu\text{m}$	12 $\mu\text{m}$
#140	14-16 $\mu\text{m}$	32-48 $\mu\text{m}$	#325	8 $\mu\text{m}$	14-16 $\mu\text{m}$	#800	3-5 $\mu\text{m}$	12 $\mu\text{m}$

## ■ Hardness of Wheel (Grade)

Soft (least durable)	Medium (mid-range durable)	Hard (most durable)
L. M. N.	O. P. Q.	R. S. T.

## ■ Concentration:

Essentially the selection of the most suitable concentration is determined by the size of the contact surface between grinding wheel and workpiece. The following may be considered as general rules:

Small contact surface and coarse grit size: high concentration

Large contact surface and fine grit: low concentration

Concentration	25	50	75	100	125	150	200
Volume % of Grain	6.25	12.5	18.75	25	31.25	37.5	50
cts/cm <sup>3</sup>	1.1	2.2	3.3	4.4	5.5	6.6	8.8

## ■ Bond Type & Characteristics:

Vitrified (V)	Resinoid	Metallic (M)	Electroplated (P)
Can be porous good to keep crystal protrusion. Very good crystal retention to prolong wheel life. Can provide the highest performance and quality grinding of mass production especially for auto. industry, such as cam-lobe grinding or CVUJ grinding.	Easy to apply with good wheel sharpness. Easy to true and dress, high abrasive pop-out. For better surface finish of HSS cutting tool grinding.	Good crystal retention for longer wheel life. Tend to be dull when applied to difficult materials. Difficult to true and dress. Apply to glass industry mostly and it's easy to grind brittle material.	Complexed formed wheel with shaped metal core. Very rough and very precise application (gear etc.) Good grinding efficiency.

## • Use The Right Wheel for Each Job, There is No "All-Purpose" Diamond & CBN Wheel.

Although diamond & CBN are very hard, they are also very brittle, they cannot resist strongly with the external impact force. So, care must be taken when mounting the wheel. Spindle bearings and slides must be adjusted correctly to eliminate any vibration as this may cause the bond to break and shorten wheel life, or scrape and give a poor finish to the ground surface.

It is important that the machine has sufficient power to both the spindle, and in feed, to maintain the wheel of full speed. Any slowing down of either spindle or feed will cause excessive wear, and performance will be greatly reduced.

## ■ Wheel Mounting

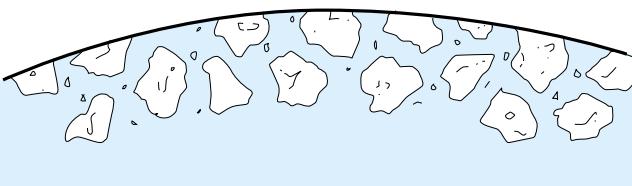
For standard wheels it is important that the wheel is mounted correctly and concentric within 0.02mm, and within 0.01mm for forming wheels. When mounting a cylindrical wheel, clamp lightly between the flanges, and check for run out. Using a dial gauge tap lightly with a NYLON hammer. Brass or lead hammers may fill the spacing between the grain slightly, causing the wheel to glaze. When the wheel is within tolerance lock up the spindle nut firmly.

## ■ Truing and Dressing

### Truing

When wheel becomes distorted or acentric due to uneven wear, it must be trued (restored to symmetry) to make the wheel concentric with the spindle.

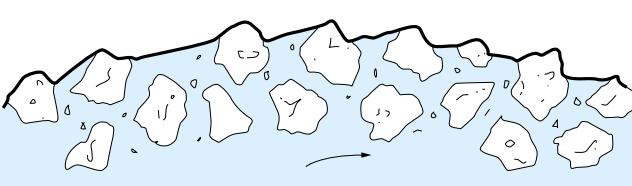
Trued



### Dressing

When the face of wheel becomes "filled" or loaded with material from the work, it must be dressed by holding a dressing stick #200 to #400 grit (depending on grit size of wheel), against wheel while running, moving it smoothly back and forth across wheel face.

Dressed



## ■ Recommendation Table of Methods & Tools to be Used for Truing & Dressing

Kind of Wheels		Truing	Dressing
Diamond	Vitrified	<ul style="list-style-type: none"> <li>• Diamond dresser (single or metal-impregnated nibs)</li> </ul>	<ul style="list-style-type: none"> <li>• Diamond dresser (single or metal-impregnated nibs)</li> </ul>
	Resinoid	<ul style="list-style-type: none"> <li>• Braked-controlled or rotary powered truing device</li> <li>• Grinding mild steel or molybdenum metal</li> </ul>	<ul style="list-style-type: none"> <li>• Dressing sticks: 4D, 6D, 8D.</li> </ul>
	Metal bonded	<ul style="list-style-type: none"> <li>• Braked-controlled or rotary powered truing device</li> </ul>	<ul style="list-style-type: none"> <li>• Dressing sticks: 4D, 6D, 8D.</li> </ul>
CBN	Vitrified	<ul style="list-style-type: none"> <li>• Diamond dresser (single or metal-impregnated nibs)</li> </ul>	<ul style="list-style-type: none"> <li>• Diamond dresser (single or metal-impregnated nibs)</li> </ul>
	Resinoid	<ul style="list-style-type: none"> <li>• Metal-impregnated diamond nibs</li> <li>• Braked-controlled or rotary powered truing device</li> <li>• Grinding mild steel or molybdenum metal</li> </ul>	<ul style="list-style-type: none"> <li>• Dressing sticks: 4D, 6D, 8D.</li> </ul>
	Metal bonded	<ul style="list-style-type: none"> <li>• Silicon carbide wheels</li> <li>• Braked-controlled or rotary powered truing device</li> </ul>	<ul style="list-style-type: none"> <li>• Silicon carbide sticks</li> </ul>

## ■ Recommendation of Truing Wheels

Grit of BD Wheel	Truing Wheel Spec
#80 & coarser	C46-M V
#100~#200	C60-M V
#230~#325	GC120KV
#400 & finer	WA200-K V

Ex-Stocks: C60MV 80 x 25 x 12.7  
GC120KV 80 x 25 x 13.0

## ■ Recommendation of Dressing Sticks

Grit of BD Wheel	CBN Wheels	Diamond Wheels
#200 or below	4B	4D
#230~#400	6B	6D
#500 or above	8B	8D

Standard Sizes: 75 x 20 x 8 & 100 x 20 x 20

## ■ Peripheral Speed of Wheels

Too high an operating speed for diamond wheels will generate excessive heat, causing damage to the wheel, and shortening its life. Generally the speed for dry grinding is 15-20 M/S CBN wheels give better results when operated at maximum recommended speed, care should be taken to ensure that the machine is in good condition, and the wheel accurately balanced when operated at maximum speed . Generally the speed for dry grinding is up to 25 M/S, and the speed for wet grinding is up to 55M/S.

## ■ Recommendation Table of Proper Peripheral Speed

Unit: m/min

Bond	Diamond Wheels		CBN Wheels	
	Dry Grinding	Wet Grinding	Dry Grinding	Wet Griding
Vitrified (V)	1,000~1,400	1,300~1,800	1,600~2,000	1,600~2,400
Resinoid (B)	800~1,200	1,300~1,800	1,000~1,400	1,600~2,400
Electroplated (P)	600~1,200	1,200~1,800	900~1,600	1,600~2,400
Metallic (M)	600~1,000	1,000~1,500	1,000~1,500	1,600~2,400

## ■ Coolant

Small parts can be ground in a dry condition (25 M/S) provided the depth of cut is not too great. Heavy cuts will generate excessive heat at the point at contact which will cause the component to become burnished, load the wheel face, and damage the bond.

Wet grinding is preferable in all cases. This will allow a deeper cut and faster stock removal, as well as greatly increasing the wheel life. Care must be taken to ensure that the coolant is directed to the point of contact of the wheel.

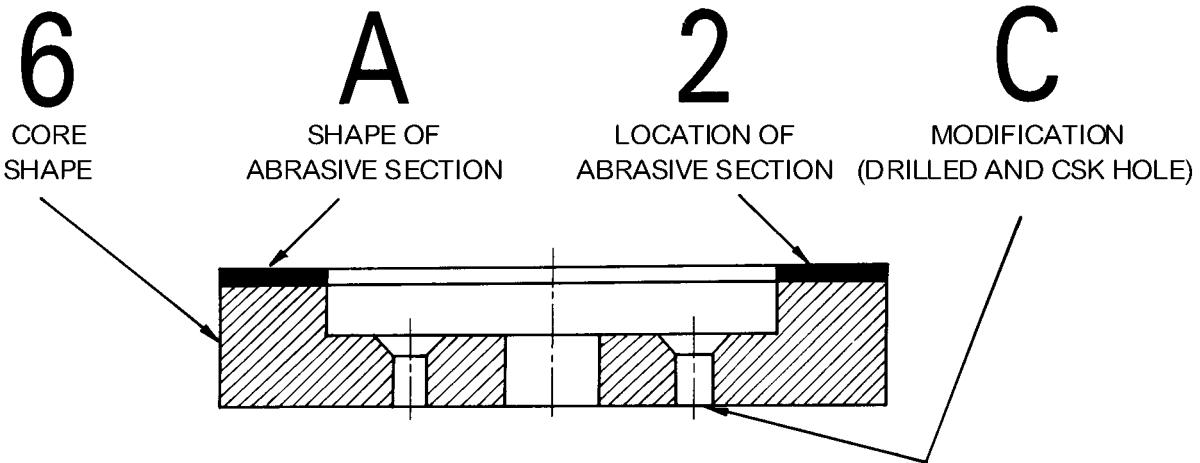
## ■ Depth of Cut

Keeping required surface roughness, better wheel life could be attained by using the depth of cut as follows. These figures might be varied on feed rate and workpiece materials.

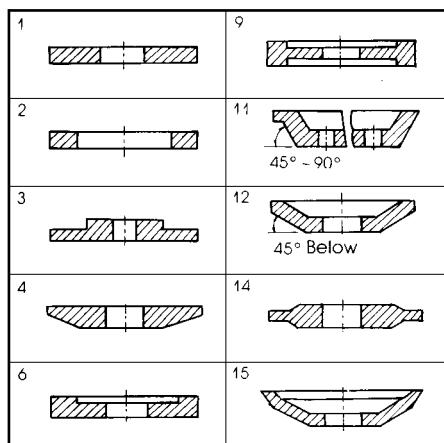
Grit Size of Wheel	Infeed Speed
#80~120	Within 0.03mm
#140~200	Within 0.02mm
#230~270	Within 0.01mm
#325 & finer	Within 0.005mm

## ■ Indicating As Below:

1. Core shape
2. Shape of abrasive section
3. Location of abrasive section
4. Modification



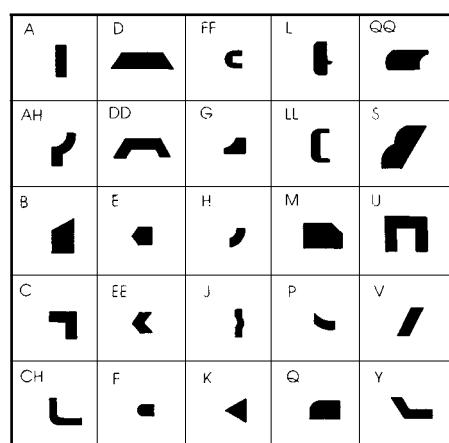
## ■ Basic Core Shapes



## ■ Location of Abrasive Section

Periphery	Both Sides	3	Part of Side	7
	Inside Bevel or Arc	4	Throughout	8
Side	Outside Bevel or Arc	5	Corner	9
	Part of Periphery	6	Annular	10

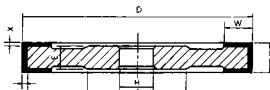
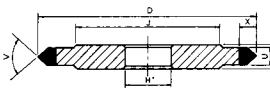
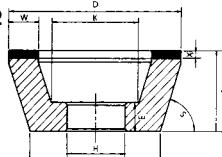
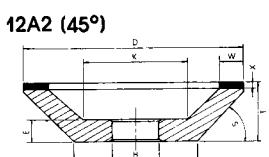
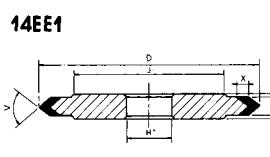
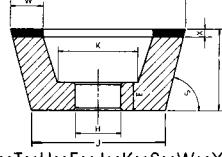
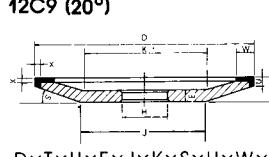
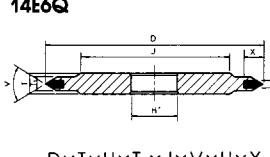
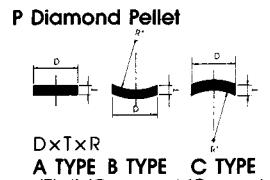
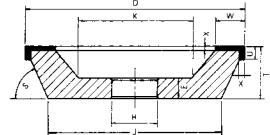
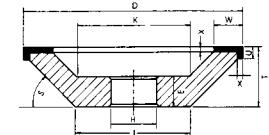
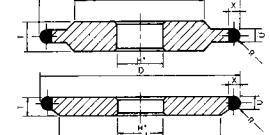
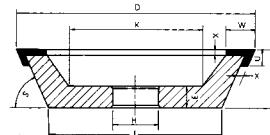
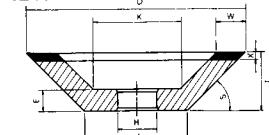
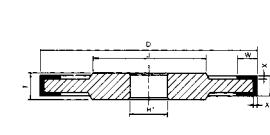
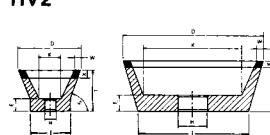
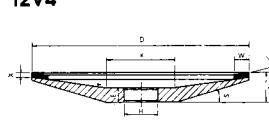
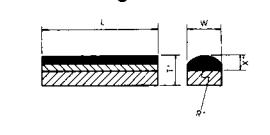
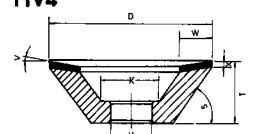
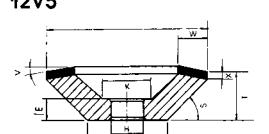
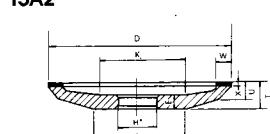
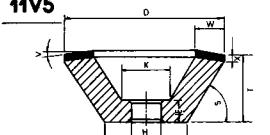
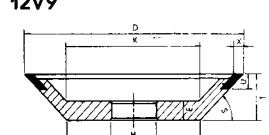
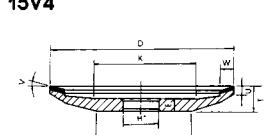
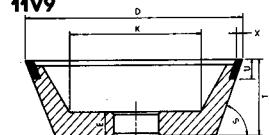
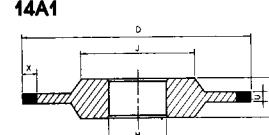
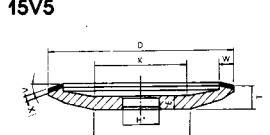
## ■ Shapes of Abrasive Cross Section



## ■ Modifications

Drill and Counterbore	B	Segmented Abrasive Section	S
Drill and Countersink	C	Segmental and Slotted	SS
Plain Hole	H	Threaded Holes	T
Holes Plain and Threaded	M	Abrasive Inserted	Q
Relieved One Side	P	Abrasive Inverted	V
Relieved Two Side	R	Abrasive Inserted and Inverted	Y

<b>1A1</b>  D×T×H	<b>1E6Q</b>  D×T×H×V×U×X	<b>1V1</b>  D×T×H×V×X	<b>4T1</b>  D×T×H×J×W×X×V° (10°)
<b>1A8</b>  D×T×H×X	<b>1EE6Y</b>  D×T×H×V×U <sub>1</sub> ×U <sub>2</sub> ×X×R	<b>2A2</b>  D×T×H×W×X	<b>6A2</b>  D×T×H×E×W×X
<b>1A1R</b>  D×T×H×X	<b>1E9</b>  D×T×H×U×V×J×X	<b>3A1</b>  D×T×H×J×U×X	<b>6A2S</b>  D×T×H×E×K×W×X
<b>1A6Q</b>  D×T×H×V×U×X	<b>1F1</b>  D×T×H×X×R	<b>3F2 Diamond Curve Generator Wheels</b>  D×X×M/C Model	<b>6A9</b>  D×T×H×E×K×U×X
<b>1B1</b>  D×T×H×V×X	<b>1FF1</b>  D×T×H×X×R	<b>3V2T</b>  D×L(20)×45°×W×X	<b>6F2</b>  D×L×Y×S×X
<b>1B5</b>  D×T×H×W×V×X	<b>1FF6Y</b>  D×T×H×V×U <sub>1</sub> ×U <sub>2</sub> ×X×R	<b>4A2</b>  D×T×H×E×J×S×W×X	<b>6FF6Y</b>  D×T×H×E×K×U×X
<b>1DD6Y</b>  D×D <sub>1</sub> ×D <sub>2</sub> ×T×H×φ50 ×20×V1×V2×U×X	<b>1L1</b>  D×T×H×X×R	<b>4B2</b>  D×T×H×J×V×W×X	<b>6P4</b>  D×T×H×X×R
<b>1E1</b>  D×T×H×V×X	<b>1LL6Y</b>  D×T×H×V×U <sub>1</sub> ×U <sub>2</sub> ×X×R	<b>4BT9</b>  D×T×H×J×K×W×X×V° (5°)	<b>6P5</b>  D×T×H×X×R
<b>1EE1</b>  D×T×H×V×X	<b>1Q1</b>  D×T×H×X×R	<b>4M1</b>  D×T×H×E×J×K×S×W×U	<b>9A3</b>  D×T×H×E×W×X

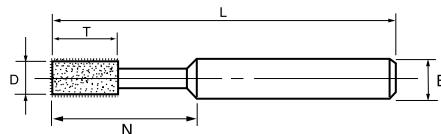
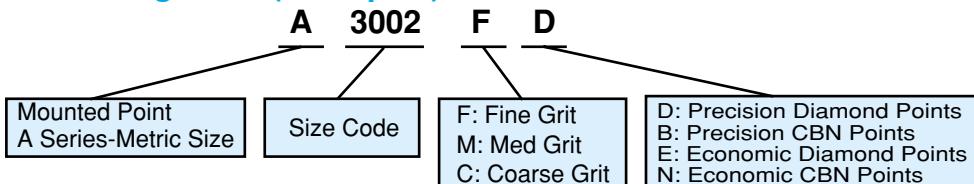
<b>9U1</b>  D×T×H×E×J×W×X	<b>12A2 (20°)</b>  D×T×H×E×J×K×S×W×X	<b>14E1</b>  D×T×H×J×V×U×X	<b>15V9</b>  D×T×H×E×J×K×S×V×U×X
<b>11A2</b>  D×T×H×E×J×K×S×W×X	<b>12A2 (45°)</b>  D×T×H×E×J×K×S×W×X	<b>14EE1</b>  D×T×H×J×V×U×X	<b>HH1 Hand Lapper</b>  L×E×L×W×X
<b>11B2</b>  D×T×H×E×J×K×S×W×X	<b>12C9 (20°)</b>  D×T×H×E×J×K×S×U×W×X	<b>14E6Q</b>  D×T×H×T <sub>2</sub> ×J×V×U×X	<b>P Diamond Pellet</b>  D×T×R <b>A TYPE</b> (Flat) <b>B TYPE</b> (Concave) <b>C TYPE</b> (Convex)
<b>11C9</b>  D×T×H×E×J×K×S×U×W×X	<b>12C9 (45°)</b>  D×T×H×E×J×K×S×U×W×X	<b>14F1</b>  D×T×H×J×U×R×X	<b>Diamond Hand Files (Iron Working Use)</b> <b>N TYPE</b> (Precision Use) L×T×P <b>F TYPE</b> L×T×P <b>TYPE</b> L×T×P <b>Handy Machine Files</b> <b>D TYPE</b> L×T×Y×P <b>Machine Files</b> <b>M TYPE</b> L×P
<b>11EE9</b>  D×T×H×E×J×K×S×U×W×X	<b>12V2</b>  D×T×H×E×J×K×S×W×X	<b>14U1</b>  D×T×H×J×W×U×X	<b>DW Mounted Wheels</b> <b>DW (DWJ)</b> D×Y×L×T×X <b>DW-I</b> D×T×Y×L×L <sub>1</sub> <b>DW-II</b> D×T×Y×L (DWJ: For JIG Grinding)
<b>11V2</b>  D×T×H×E×J×K×W×X	<b>12V4</b>  D×T×H×E×K×S×V×W×X	<b>HMF Honing Stones</b>  L×T×W×R×X	<b>DW-TA</b> D×T×Y×L×T <sub>1</sub> ×V×U <b>DW-T</b> D×T×L×V <b>DW-T</b> D×T×Y×L×V (Electro-Plated Wheel)
<b>11V4</b>  D×T×H×K×S×V×W×X	<b>12V5</b>  D×T×H×E×J×K×S×V×W×X	<b>15A2</b>  D×T×H×E×J×K×U×W×X	
<b>11V5</b>  D×T×H×E×J×K×S×V×W×X	<b>12V9</b>  D×T×H×E×J×K×S×U×X	<b>15V4</b>  D×T×H×E×J×K×V×U×W×X	
<b>11V9</b>  D×T×H×E×J×K×S×U×X	<b>14A1</b>  D×T×H×J×U×X	<b>15V5</b>  D×T×H×E×J×K×V×W×X	

## Application

Electroplated Diamond mounted points A series are used for internal grinding and precision grinding of small holes on carbide, ceramics, sapphire, glass, etc.

Electroplated CBN mounted points are used on high speed steel, stainless steel, super alloy, etc.

## ■ Ordering Code (Examples)



## ■ Standard Sizes & Specifications

Product No.	D (mm)	T (mm)	N (mm)	L (mm)	B (mm)	D(Diamond)			Remark	B(CBN)			Remark
						Fine	Med.	Coarse		Fine	Med.	Coarse	
A3003	0.3	2	3	35	3	#400				#400			
A3004	0.4	2	3.5	35	3	400	#200			400	#200		
A3005	0.5	2	3.5	35	3	325	200			325	200		
A3006	0.6	2	6	35	3	200	140			200	140		
A3007	0.7	2	7	35	3	200	140			200	140		
A3008	0.8	3	7	35	3	200	140	#100		200	140	#100	
A3009	0.9	3	7	35	3	200	140	100		200	140	100	
A3010	1.0	3	7	45	3	200	140	100		200	140	100	
A3011	1.1	3	7	45	3	200	140	100		200	140	100	
A3012	1.2	3	12	45	3	200	140	100		200	140	100	
A3013	1.3	3	12	45	3	200	140	100		200	140	100	
A3014	1.4	3	12	45	3	200	140	100		200	140	100	
A3015	1.5	3	13	45	3	200	140	100		200	140	100	
A3016	1.6	4	13	45	3	200	140	100		200	140	100	
A3017	1.7	4	13	45	3	200	140	100		200	140	100	
A3018	1.8	4	13	45	3	200	140	100		200	140	100	
A3019	1.9	4	13	45	3	200	140	100		200	140	100	
A3020	2.0	4	13	45	3	200	140	100		200	140	100	
A3920	2.0	5	20	45	3	200	140	100		200	140	100	
A3021	2.1	4	13	45	3	200	140	100		200	140	100	
A3022	2.2	4	13	45	3	200	140	100		200	140	100	
A3023	2.3	4	13	45	3	200	140	100		200	140	100	
A3024	2.4	4	13	45	3	200	140	100		200	140	100	
A3025	2.5	4	13	45	3	200	140	100		200	140	100	
A3925	2.5	5	25	45	3	200	140	100		200	140	100	
A3026	2.6	4	13	45	3	200	140	100		200	140	100	
A3027	2.7	4	13	45	3	200	140	100		200	140	100	

Note:   Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.

## ■ Standard Sizes & Specifications

Product No.	D (mm)	T (mm)	N (mm)	L (mm)	B (mm)	D(Diamond)			Remark	B(CBN)			Remark
						Fine	Med.	Coarse		Fine	Med.	Coarse	
A3028	2.8	4	13	45	3	#200	#140	#100		#200	#140	#100	
A3029	2.9	4	13	45	3	200	140	100		200	140	100	
A3030	3.0	5	13	45	3	200	140	100		200	140	100	
A3930	3.0	5	25	45	3	200	140	100		200	140	100	
A3035	3.5	5		45	3	200	140	100		200	140	100	
A3040	4.0	5		45	3	200	140	100		200	140	100	
A3045	4.5	5		45	3	200	140	100		200	140	100	
A3050	5.0	8		45	3	200	140	100		200	140	100	
A3060	6.0	8		45	3	200	140	100		200	140	100	

Note:  Indicating standard stock available for grits to be marked in the above.

## ■ Standard Sizes & Specifications

Product No.	D (mm)	T (mm)	N (mm)	L (mm)	B (mm)	D(Diamond)			E(Diamond)		B(CBN)			N(CBN)	
						Med.	Coarse	Remark	Coarse	Remark	Med.	Coarse	Remark	Coarse	Remark
A6020	2.0	10	30	80	6	#140	#100				#140	#100			
A6025	2.5	10	30	80	6	140	100				140	100			
A6030	3.0	10	30	80	6	140	100				140	100			
A6035	3.5	10	30	80	6	140	100				140	100			
A6040	4.0	10	30	80	6	140	100		#100		140	100		#100	
A6045	4.5	10	30	80	6	140	100		100		140	100		100	
A6050	5.0	10	30	80	6	140	100		100		140	100		100	
A6055	5.5	10	30	80	6	140	100		100		140	100		100	
A6060	6.0	10	35	80	6	140	100		100		140	100		100	
A6065	6.5	10		80	6	140	100		100		140	100		100	
A6070	7.0	10		80	6	140	100		100		140	100		100	
A6075	7.5	10		80	6	140	100		100		140	100		100	
A6080	8.0	10		80	6	140	100		100		140	100		100	
A6085	8.5	10		80	6	140	100		100		140	100		100	
A6090	9.0	10		80	6	140	100		100		140	100		100	
A6100	10.0	10		80	6	140	100		100		140	100		100	
A6110	11.0	10		80	6	140	100		100		140	100		100	
A6120	12.0	10		80	6	140	100		100		140	100		100	
A6130	13.0	10		80	6	140	100		100		140	100		100	
A6140	14.0	10		80	6	140	100		100		140	100		100	
A6150	15.0	10		80	6	140	100		100		140	100		100	
A6160	16.0	10		80	6	140	100				140	100			
A6170	17.0	10		80	6	140	100				140	100			
A6180	18.0	10		80	6	140	100				140	100			
A6200	20.0	10		80	6	140	100				140	100			
A6210	21.0	10		80	6	140	100				140	100			
A6220	22.0	10		80	6	100	100				100	100			
A6250	25.0	10		80	6	140	100				140	100			

Note:  Indicating standard stock available for grits to be marked in the above.

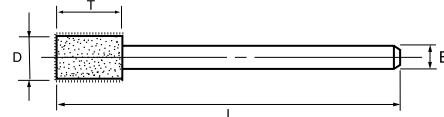
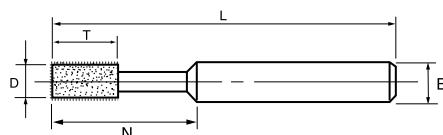
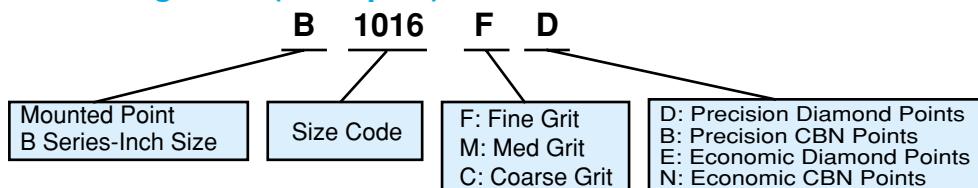
\* Specification for reference only. Actual product may vary.

## Application

Electroplated Diamond mounted points B series are used for internal grinding and precision grinding of small holes on carbide, ceramics, sapphire, glass, etc.

Electroplated CBN mounted points are used on high speed steel, stainless steel, super alloy, etc.

## ■ Ordering Code (Examples)



## ■ Standard Sizes (in inch) & Specifications

Product No.	D (inch)	T (inch)	N (inch)	L (inch)	B (inch)	D(Diamond)			Remark	B(CBN)			Remark
						Fine	Med.	Coarse		Fine	Med.	Coarse	
B1016	0.016	0.079	1/8	2-1/4	1/8	#270	#200			#270	#200		
B1020	0.020	0.079	1/8	2-1/4	1/8	200	140			200	140		
B1025	0.025	0.079	1/4	2-1/4	1/8	200	140			200	140		
B1030	0.030	0.079	1/4	2-1/4	1/8	200	140			200	140		
B1035	0.035	0.118	1/4	2-1/4	1/8	200	140	#100		200	140	#100	
B1040	0.040	0.118	1/4	2-1/4	1/8	200	140	100		200	140	100	
B1045	0.045	0.118	1/4	2-1/4	1/8	200	140	100		200	140	100	
B1050	0.050	0.118	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1054	0.050	0.118	1	2-1/4	1/8	200	140	100		200	140	100	
B1055	0.055	0.118	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1060	0.060	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1064	0.060	0.157	1	2-1/4	1/8	200	140	100		200	140	100	
B1065	0.065	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1070	0.070	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1074	0.070	0.157	1	2-1/4	1/8	200	140	100		200	140	100	
B1075	0.075	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1080	0.080	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1084	0.080	0.157	1	2-1/4	1/8	200	140	100		200	140	100	
B1085	0.085	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1090	0.090	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1094	0.090	0.157	1	2-1/4	1/8	200	140	100		200	140	100	
B1095	0.095	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1100	0.100	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1104	0.100	0.157	1	2-1/4	1/8	200	140	100		200	140	100	
B1105	0.105	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1109	0.105	0.157	1	2-1/4	1/8	200	140	100		200	140	100	
B1110	0.110	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1114	0.110	0.157	1	2-1/4	1/8	200	140	100		200	140	100	

\* Specification for reference only. Actual product may vary.

## ■ Standard Sizes & Specifications

Product No.	D (inch)	T (inch)	N (inch)	L (inch)	B (inch)	D(Diamond)			Remark	B(CBN)			Remark
						Fine	Med.	Coarse		Fine	Med.	Coarse	
B1115	0.115	0.157	1/2	2-1/4	1/8	#200	#140	#100		#200	#140	#100	
B1120	0.120	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1125	0.125	0.157	1/2	2-1/4	1/8	200	140	100		200	140	100	
B1130	0.130	0.197	1	2-1/4	1/8	200	140	100		200	140	100	
B1135	0.135	0.236		2-1/4	1/8	200	140	100		200	140	100	
B1140	0.140	0.236		2-1/4	1/8	200	140	100		200	140	100	
B1156	0.156	0.236		2-1/4	1/8	200	140	100		200	140	100	
B1171	0.171	0.236		2-1/4	1/8	200	140	100		200	140	100	
B1187	0.187	0.312		2-1/4	1/8	200	140	100		200	140	100	
B1203	0.203	0.312		2-1/4	1/8	200	140	100		200	140	100	
B1218	0.218	0.312		2-1/4	1/8	200	140	100		200	140	100	
B1250	0.250	0.312		2-1/4	1/8	200	140	100		200	140	100	

## ■ Standard Sizes & Specifications

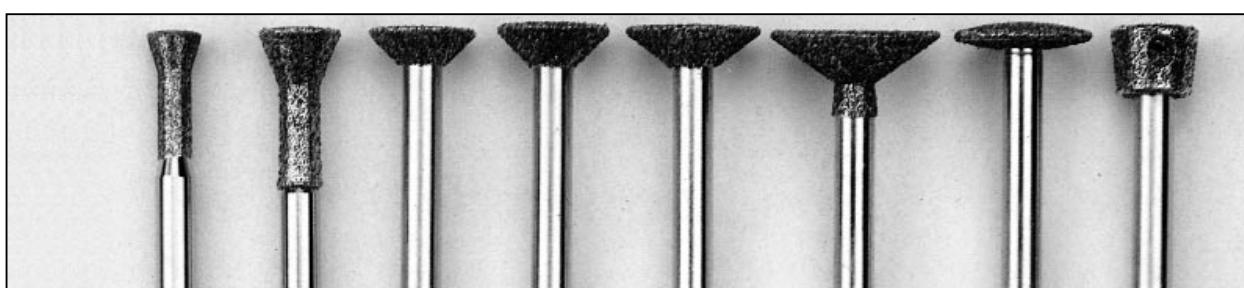
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						Fine	Coarse		Fine	Coarse	
B4156	0.156	0.250	1	3	1/4	#200	#100		#200	#100	
B4187	0.187	0.250	1	3	1/4	200	100		200	100	
B4203	0.203	0.250	1	3	1/4	200	100		200	100	
B4218	0.218	0.250	1	3	1/4	200	100		200	100	
B4236	0.236	0.250	1	3	1/4	200	100		200	100	
B4250	0.250	0.250	1	3	1/4	200	100		200	100	
B4282	0.282	0.250		3	1/4	200	100		200	100	
B4312	0.312	0.375		3	1/4	200	100		200	100	
B4375	0.375	0.375		3	1/4	200	100		200	100	
B4390	0.390	0.375		3	1/4	200	100		200	100	
B4406	0.406	0.375		3	1/4	200	100		200	100	
B4437	0.437	0.375		3	1/4	200	100		200	100	
B4500	0.500	0.375		3	1/4	200	100		200	100	
B4730	0.730	0.375		3	1/4	200	100		200	100	
B4864	0.864	0.375		3	1/4	200	100		200	100	
B4100	1.000	0.375		3	1/4	200	100		200	100	
B6406	0.406	0.375		3-3/4	3/8	140	80		140	80	
B6437	0.437	0.375		3-3/4	3/8	140	80		140	80	
B6500	0.500	0.375		3-3/4	3/8	140	80		140	80	
B6562	0.562	0.375		3-3/4	3/8	140	80		140	80	
B6625	0.625	0.375		3-3/4	3/8	140	80		140	80	
B6687	0.687	0.375		3-3/4	3/8	140	80		140	80	
B6750	0.750	0.375		3-3/4	3/8	140	80		140	80	
B6875	0.875	0.400		3-3/4	3/8	140	80		140	80	
B6100	1.000	0.500		3-3/4	3/8	140	80		140	80	

\* Specification for reference only. Actual product may vary.

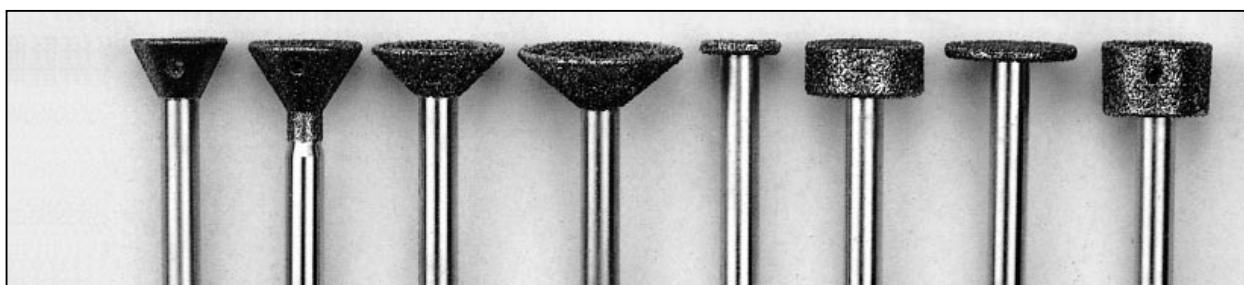
## CP Type (6 mm Diameter Shaft & Grits #40/50, #60/80)



Product No.	<b>CT11</b>	<b>CLR55</b>	<b>CLC65</b>	<b>CC66</b>	<b>CC70</b>	<b>CTA65</b>	<b>CC100</b>	<b>CA100</b>
Size	10° x 20T	5.5ø x 17T	6.5ø x 36T	6.5ø x 33T	7ø x 36T	6.5ø x 21T	10ø x 26T	10ø x 31T



Product No.	<b>CBD80</b>	<b>CBD12</b>	<b>CB160</b>	<b>CB165</b>	<b>CB200</b>	<b>CBD25</b>	<b>CKX20</b>	<b>CBA13</b>
Size	8ø x 10T	12ø x 23T	16ø x 5T	16ø x 6T	20ø x 6T	25ø x 12T	20ø x 4T	13ø x 10T



Product No.	<b>CBA15</b>	<b>CBD17</b>	<b>CBH20</b>	<b>CBH25</b>	<b>CK120</b>	<b>CK180</b>	<b>CK200</b>	<b>CAA17</b>
Size	15ø x 9T	17ø x 10T	20ø x 8T	25ø x 8T	12ø x 2T	18ø x 8T	20ø x 2T	17ø x 11T



The photo on the left shows our standard 10 pcs-pack including the diamond grits for # 40/50, # 60/80, # 100/120.

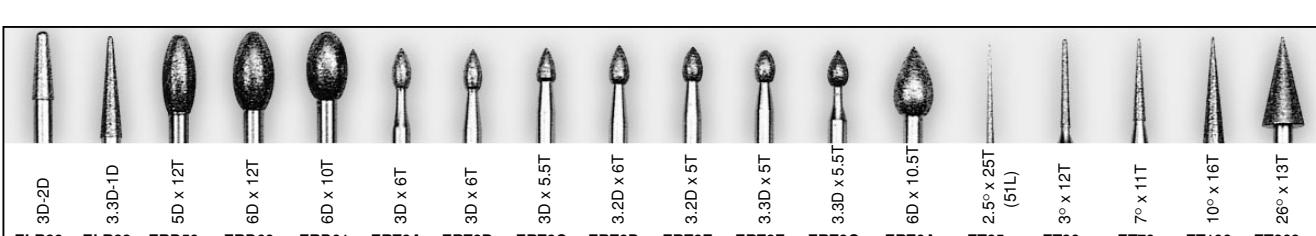
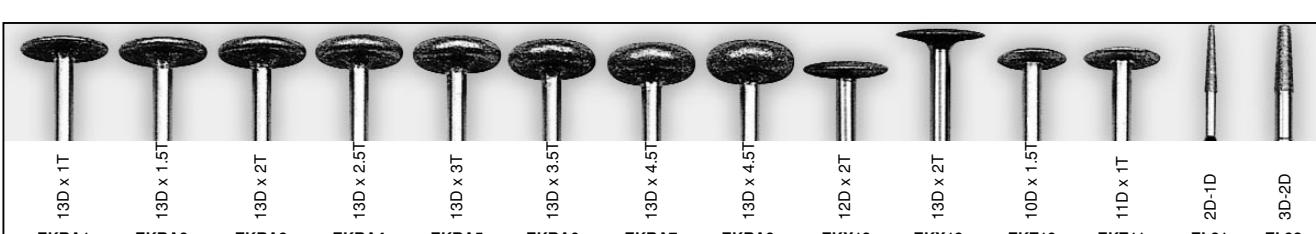
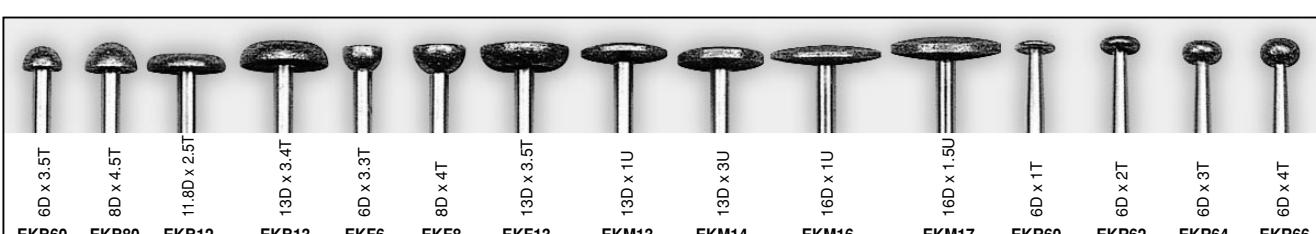
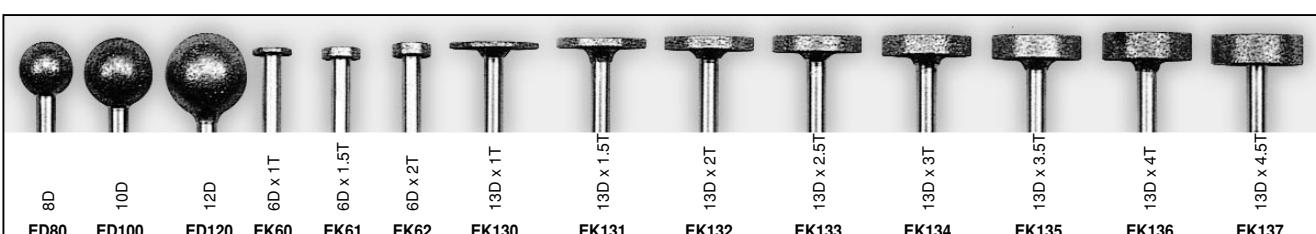
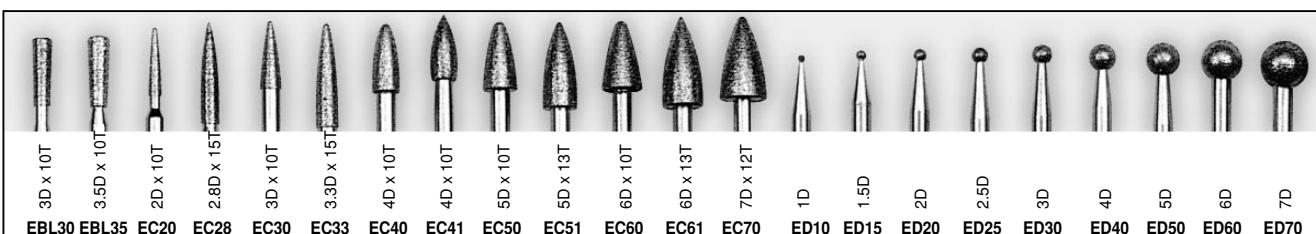
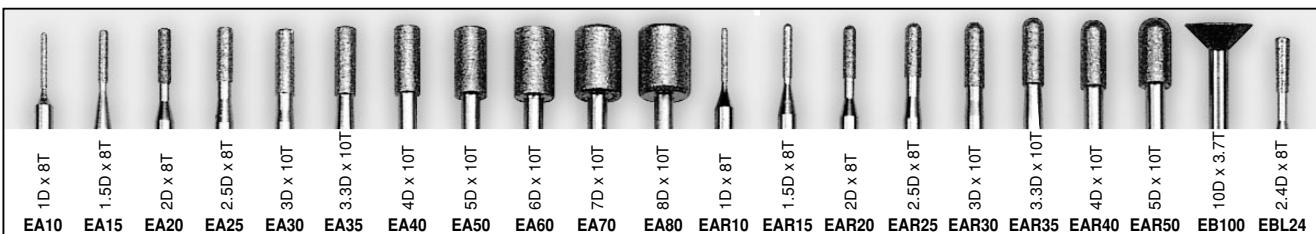
### K10CA: 10pcs/set

Product No.	Size	2D40	2D60	D100
CT10	6ø x 10°			
CC65	6.5ø x 22T			
CL80	8ø x 15T			
CT30	8ø x 30°			
CK100	10ø x 1.2T			
CAR65	6.5ø x 15T			
CB80	8ø x 6T			
CA80	8ø x 15T			
CD80	8ø x 8T			
CC80	8ø x 15T			
KIT-E	10PCS/SET			

\* Specification for reference only, Actual product may vary.

**E Series: 3 mm shaft & 45 mm Length**

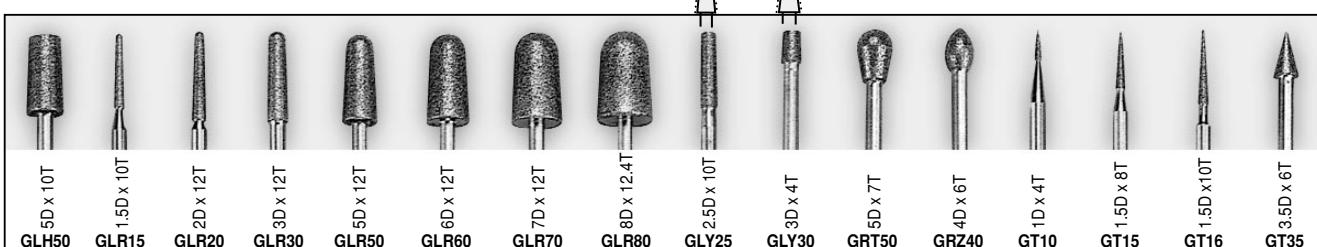
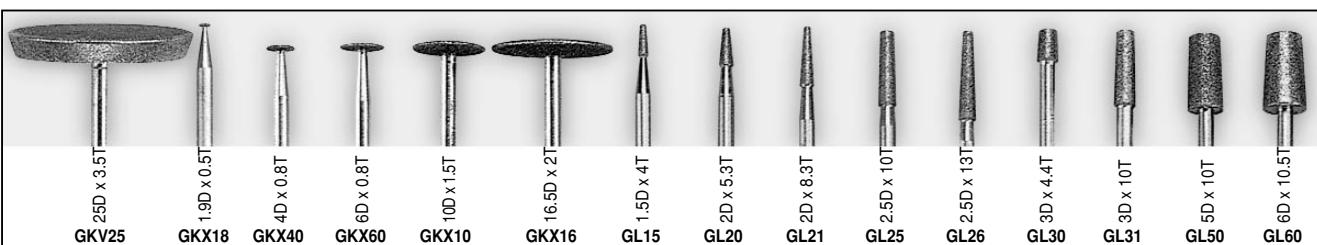
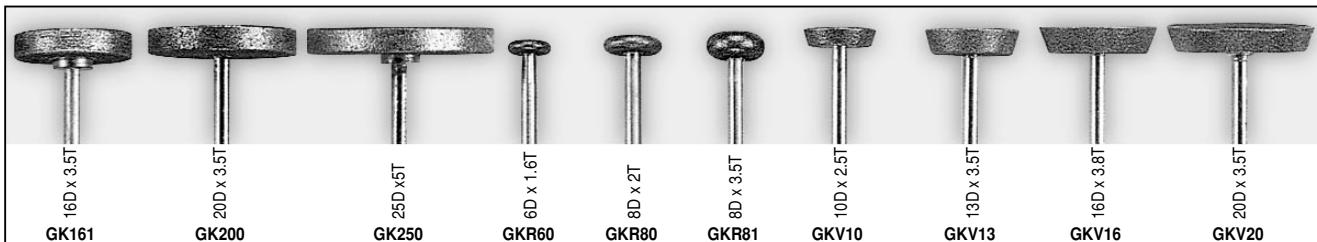
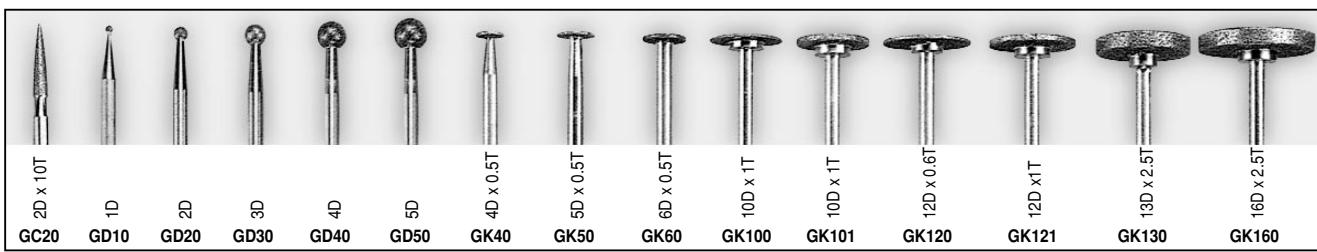
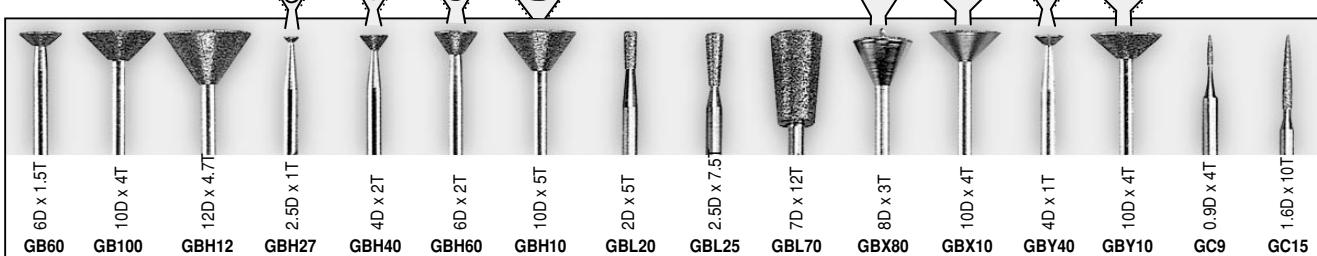
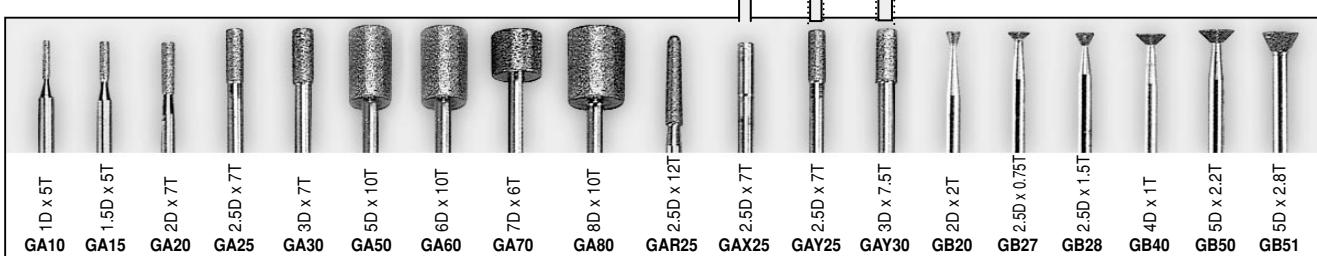
To be applied in contour grinding to carbide, ceramics, ferrite, gem, marble, granite etc. Highly recommended for all kinds of hardened steel mold making. Standard diamond grit of mesh for 6mm O.D. and bigger are #100, 2mm-5mm are #120, 1.6mm and under are #140.

**Ordering Code (Examples)**
**E A10**
**E Series**
**Shapes Code**


\* Specification for reference only. Actual product may vary.

**G Series: 2.34 mm shaft & 45 mm Length**

To be applied in contour grinding to carbide, ceramics, ferrite, gem, marble, granite etc. Highly recommended for all kinds of hardened steel mold making.

**Ordering Code (Examples)**
**G A10**
**G Series**
**Shapes Code**


\* Specification for reference only. Actual product may vary.

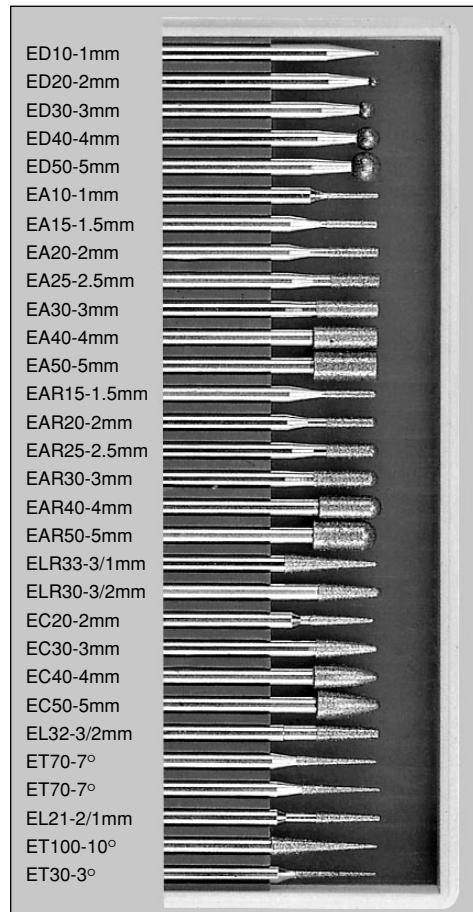
Application: **HONGIA** diamond & CBN contour tools are well suited for contour grinding for carbide, ceramics, ferrite, gem, marble, granite, etc. Highly recommended for all kinds of hardened steel mold making.

**(30pcs/set)**

Ordering No.	Remark
K30EA-D1	Dia-Standard
K30EA-DE	Dia-Economic
K30EA-D2	Dia#230
K30EA-D3	Dia.#325
K30EA-D4	Dia.#400
K30EA-B1	CBN
K30EB-DE	Dia-Economic
K30FA-D1	Dia-Standard
K30GA-D1	Dia-Standard
K10EA-DE	Dia-Economic
K10EB-DE	Dia-Economic

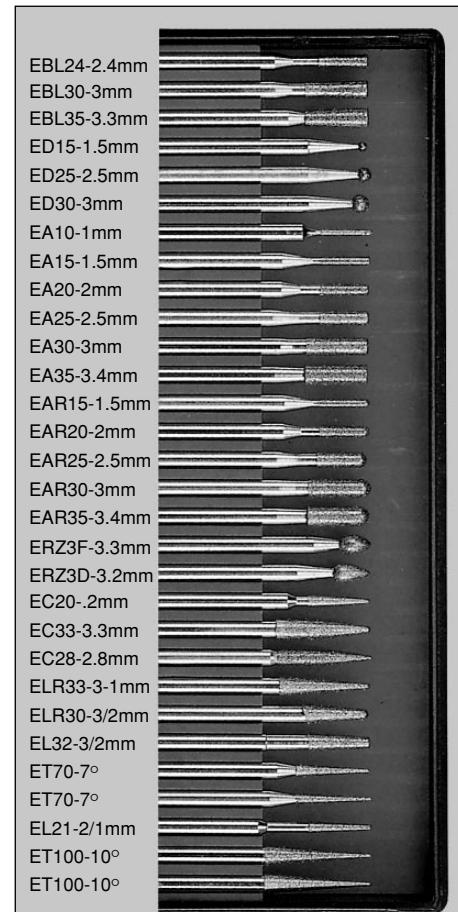
**K-30EA**

**3mm Shaft**



**K-30EB**

**3mm Shaft**

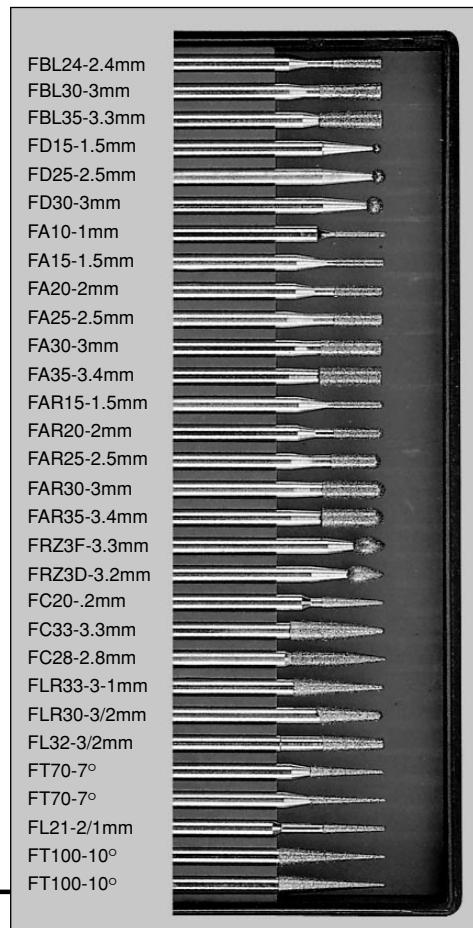


**K-10EA-DE 10pcs/set**



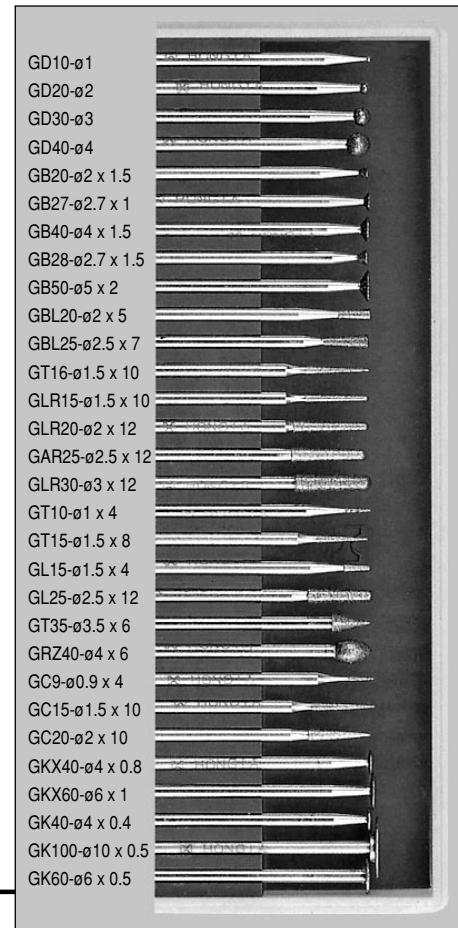
**K-30FA**

**1/8" Shaft**

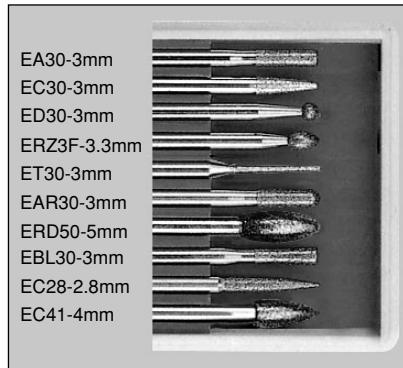


**K-30GA**

**2.34mm Shaft**



**K-10EB-DE 10pcs/set**



\* Specification for reference only.

Actual product may vary.

																	Coarse H: #120	Normal M: #140	Fine F: #200	S-Fine U: #600			
Shapes																							
Total length	19	19	19	19	19	19	19	19	21	21	21	21	19	19	19	19	19	19	22	21	21	19	
Order No.	84512	84519	84526	84712	84713	84718	84814	84815	84816	84819	90940	83715	83510	83610	80723	88X19	88X18	60516	60518	82543			
Standard Grit	M F	C F	C M	M U	U H	M U	H U	H U	C H	H U	M F	M F	H C	H F	H F	H H	M F				M F		
Remark																							

Shapes																							
Total length	20	18	23	21	21	21	21	23	23	21	16	19	18	19	20	21	21	21	21	19	19	19	
Order No.	85811	85813	85910	85911	85915	85917	85X12	85X19	60X18	84915	85512	85516	85613	85621	85014	85016	85017	85019	81130	81143			
Standard Grit	M F	M F	M F	M F	M F	H U	F U	M M	M M	M F	M M	M M	H H	C H	H H	C U	C C	C C	C C				
Remark																							

Shapes																							
Total length	19	20	21	21	21	21	21	19	21	16	21	22	20	21	21	23	19	21	19	19	19	19	19
Order No.	86111	86009	86213	86216	86314	86317	86323	86214	86316	87715	87717	87818	87819	87917	87921	87919	88412	88614	36819	36830			
Standard Grit	M F	F U	M H	H F	H H	C H	H H	F H	H F	H F	H H	H H	H H	C H	H H	F H	F H	C F	C F				
Remark																							

Shapes																							
Total length	18	18	18	18	18	18	18	18	18	19	19	17	19	19	18	19	19	19	19	19	19	19	19
Order No.	80110	80112	80113	80117	80130	80212	80217	80510	80512	80514	80518	80612	80610	80614	80617	83011	83019	83032	81843	81844			
Standard Grit	M F	M F	M F	H U	C M	H H	M M	M M	M F	M M	M F	M M	M F	M M	M F	C F	H U	C F	M F	C F			
Remark																							

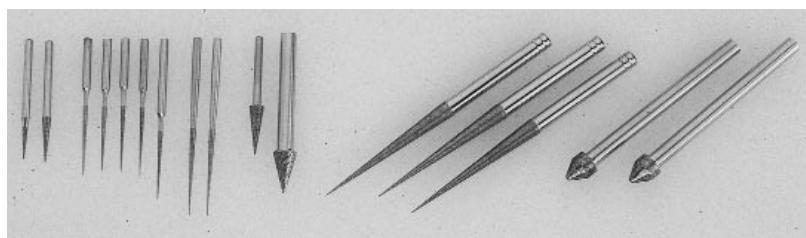
\* Specification for reference only. Actual product may vary.

Used primarily for forming carbide drawing dies, but can also be used for small hole honing in ceramics, fiberglass, plastics, etc.

## Ordering Code (Examples)

**T 306 - D120**

Tapered Hones	Product Code	Grit
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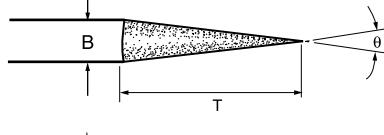
Note: Diamond plated tapered hones are normally supplied with # 100 for TA type, #120 for T & #140 for TH types, other grit sizes are available upon request.

## ■ Standard Sizes & Specifications

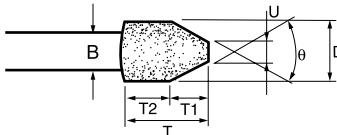
### Type T & TA

Product Code	D (mm)	Angle ( $\theta$ )	L (mm)	B (mm)	Grit	Remark
T-3025	3.0	2.5°	64	3	D100	
T-306	3.0	6°	70	3	D120	
T-308	3.0	8°	70	3	D120	
T-312	3.0	12°	70	3	D120	
T-604	6.0	4°	100	6	D120	
T-605	6.0	5°	100	6	D120	
T-606	6.0	6°	100	6	D120	
T-607	6.0	7°	100	6	D120	
T-608	6.0	8°	100	6	D120	
T-609	6.0	9°	100	6	D120	
T-610	6.0	10°	100	6	D120	
T-612	6.0	12°	100	6	D120	
T-614	6.0	14°	100	6	D120	
T-616	6.0	16°	100	6	D120	
T-620	6.0	20°	100	6	D120	
T-630	6.0	30°	100	6	D120	
TA-305	5.0	45°	45	3	D100	
TA-306	6.0	45°	45	3	D100	
TA-608	8.0	45°	80	6	D100	
TA-610	10.0	45°	80	6	D100	
TA-612	12.0	45°	80	6	D100	

### Type T & TH



### Type TA



## ■ Standard Sizes & Specifications

### Type TH

Product Code in inch	D (inch)	Angle ( $\theta$ )	L (inch)	B (inch)	Grit	Remark
TH-020	1/8	2°	6	1/8	D140	
TH-025	1/8	2.5°	2	1/8	D140	
TH-103	1/8	3°	2.6	1/8	D140	
TH-104	1/8	4°	3	1/8	D140	
TH-106	1/8	6°	3	1/8	D140	
TH-108	1/8	8°	3	1/8	D140	
TH-112	1/8	12°	3	1/8	D140	
TH-208	1/4	8°	3	1/4	D140	
TH-212	1/4	12°	3	1/4	D140	
TH-214	1/4	14°	3	1/4	D140	
TH-216	1/4	16°	3	1/4	D140	
TH-312	3/8	12°	3	3/8	D140	
TH-314	3/8	14°	3	3/8	D140	
TH-316	3/8	16°	3	3/8	D140	
TH-416	1/2	16°	3	1/2	D140	

Note: Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.

## Ordering Code (Examples)

**Y NF51 - D140**

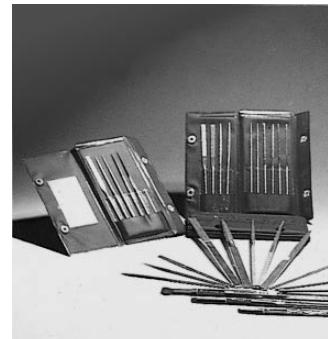
Diamond File Code

Shape Code

Grain No.

### Note:

1. Please indicate individual or assorted packing in your order.
2. Assortment: The assorted items can be of each one or at your choice of the same series.
3. Capacity of packing wallet for assortment: 5 pcs/pack for NF5, NF7 & NFL.
4. Other grits (# 80, # 120, # 200, # 270, # 325, # 400) may be made on request.

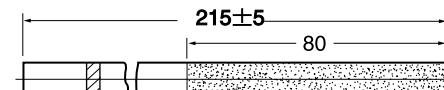


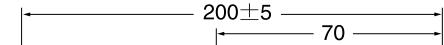
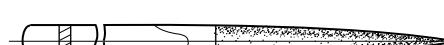
## ■ Standard Shapes & Sizes

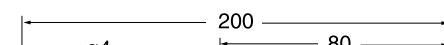
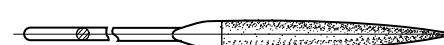
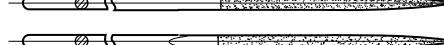
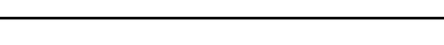
Type NF5 50mm diamond length, 140mm overall length		Shape	Standard Grit	Remark	■ KY-NF55 Diamond File Kit (5pcs/set)	
Shape No.	Contain				Remark	
NF5-1	Flat	D100			<b>NF5-1</b>	
NF5-2	Half Round	D120			<b>NF5-2</b>	
NF5-3	Round	D140			<b>NF5-3</b>	
NF5-4	Square	D200			<b>NF5-4</b>	
NF5-5	Triangle	D325			<b>NF5-5</b>	
NF5-A	Flat	D400				
NF5-B	Flat	D600				
NF5-C	Flat					
Type NF7 70mm diamond length, 140mm overall length		Shape	Standard Grit	Remark	■ KY-NF75 Diamond File Kit (5pcs/set)	
Shape No.	Contain				Remark	
NF7-1	Flat	D100			<b>NF7-1</b>	
NF7-2	Half Round	D140			<b>NF7-2</b>	
NF7-3	Round	D200			<b>NF7-3</b>	
NF7-4	Square				<b>NF7-4</b>	
NF7-5	Triangle				<b>NF7-5</b>	
Type NFL 50mm diamond length, 180mm overall length		Shape	Standard Grit	Remark	■ KY-NFL5 Diamond File Kit (5pcs/set)	
Shape No.	Contain				Remark	
NFL-1	Flat				<b>NFL-1</b>	
NFL-2	Half Round				<b>NFL-2</b>	
NFL-3	Round	D120			<b>NFL-3</b>	
NFL-4	Square				<b>NFL-4</b>	
NFL-5	Triangle				<b>NFL-5</b>	
NFL-7	Warding					

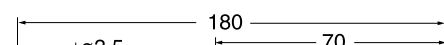
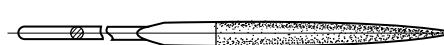
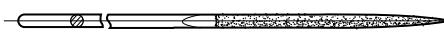
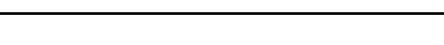
Note:   Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.

Type F5	80mm diamond length, 215mm overall length	Shape	Standard Grit	Remark	KY-F55
Shape No.					Diamond File Kit (5pcs/set)
F5-1		Flat			F5-1
F5-2		Half Round			F5-2
F5-3		Round	D100		F5-3
F5-4		Square			F5-4
F5-5		Triangle			F5-5

Type F8	70mm diamond length, 180mm overall length	Shape	Standard Grit	Remark	KY-F85
Shape No.					Diamond File Kit (5pcs/set)
F8-1		Flat			F8-1
F8-2		Half Round			F8-2
F8-3		Round	D100		F8-3
F8-4		Square			F8-4
F8-5		Triangle			F8-5

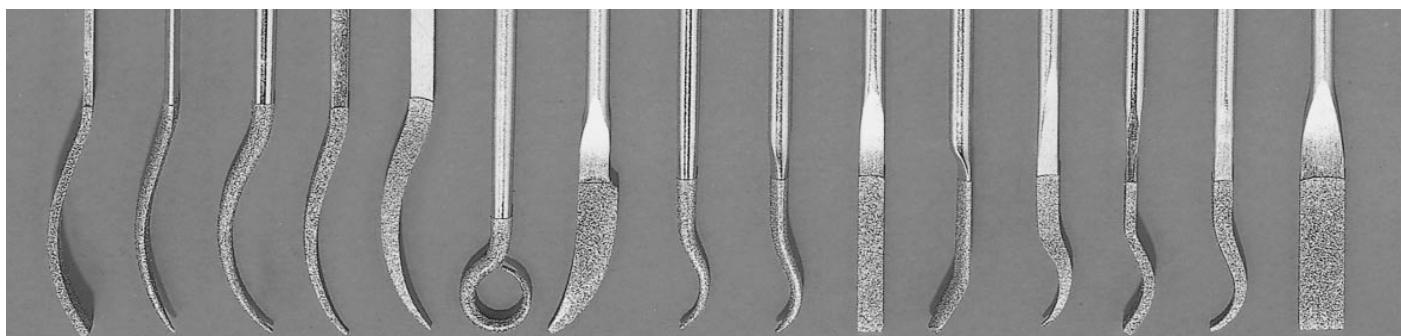
Type N5	80mm diamond length, 200mm overall length	Shape	Standard Grit	Remark	KY-N55
Shape No.					Diamond File Kit (5pcs/set)
N5-1		Flat			N5-1
N5-2		Half Round			N5-2
N5-3		Round	D100		N5-3
N5-4		Square			N5-4
N5-5		Triangle			N5-5

Type N8	70mm diamond length, 180mm overall length	Shape	Standard Grit	Remark	KY-N85
Shape No.					Diamond File Kit (5pcs/set)
N8-1		Flat			N8-1
N8-2		Half Round			N8-2
N8-3		Round	D100		N8-3
N8-4		Square			N8-4
N8-5		Triangle			N8-5

Note:  Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.

■ **Diamond Bent Files (BF):** 3mm shank diameter, 140mm overall length, standard grit D120



														
BF-1	BF-2	BF-3	BF-4	BF-5	BF-6	BF-7	BF-8	BF-10	BF-12	BF-13	BF-14	BF-15	BF-16	BF-18

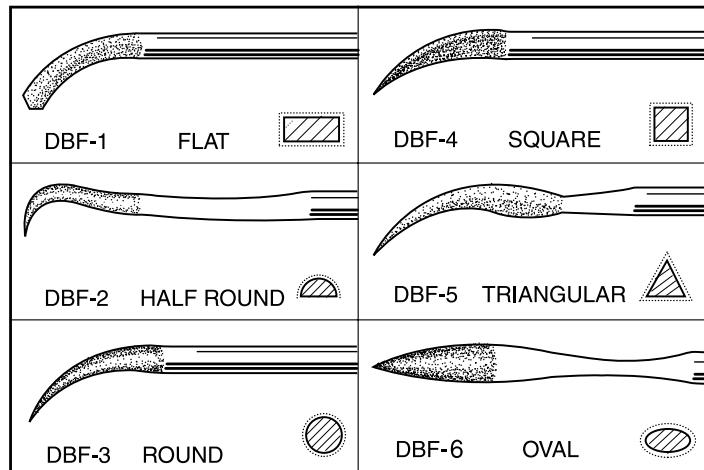
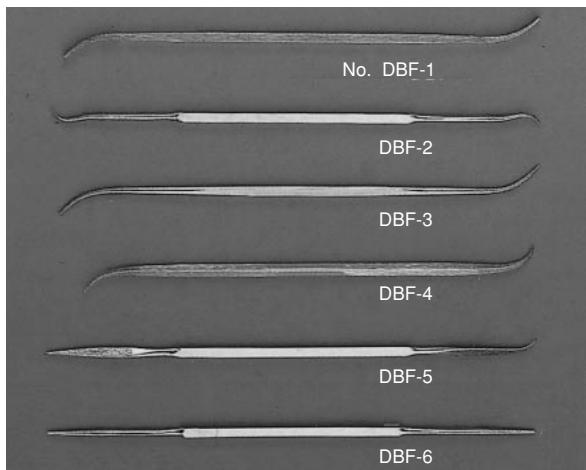
Shape No.	Diamond length( $\ell$ )	Grit	Remark	Shape No.	Diamond length( $\ell$ )	Grit	Remark	Shape No.	Diamond length( $\ell$ )	Grit	Remark
BF-1	30mm			BF-6	20mm			BF-13	20mm		
BF-2	30mm			BF-7	20mm			BF-14	20mm		
BF-3	30mm	D120		BF-8	20mm	D120		BF-15	20mm	D120	
BF-4	30mm			BF-10	20mm			BF-16	20mm		
BF-5	30mm			BF-12	20mm			BF-18	20mm		

**KY-BF5H** Diamond Bent File 5 pcs set D120 (BF1~BF-5).

**KY-BF10H** Diamond Bent File 10 pcs set D120 (BF6~BF-18).

■ **Double Sides Bent Files (DBF):**

overall length 150mm, Diamond section length 20 mm square shank diameter (Standard grit No.: D120 & D200)



Shape No.	Grit	Shape No.	Grit	Shape No.	Grit	Remark
DBF-1C	D100	DBF-1M	D140	DBF-1F	D200	
DBF-2C	D100	DBF-2M	D140	DBF-2F	D200	
DBF-3C	D100	DBF-3M	D140	DBF-2F	D200	

Shape No.	Grit	Remark						
DBF-4C	D100	DBF-4M	D140	DBF-4F	D200			
DBF-5C	D100	DBF-5M	D140	DBF-5F	D200			
DBF-6C	D100	DBF-6M	D140	DBF-6F	D200			

**KY-DBF6C** Diamond Double Side Bent File Kit (D100): 6 pcs.

**KY-DBF6H** Diamond Double Side Bent File Kit (D200): 6 pcs.

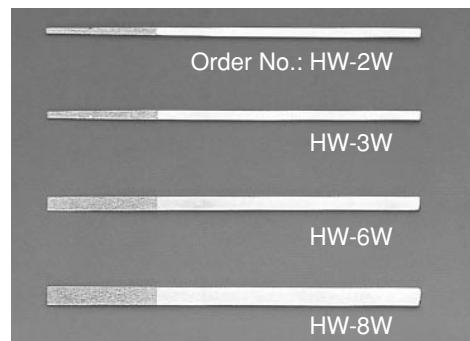
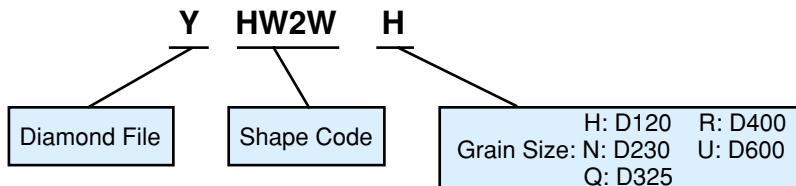
**KY-DBF6F** Diamond Double Side Bent File Kit (D200): 6 pcs.

Note:  Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.

## Diamond Hand Files (HW)

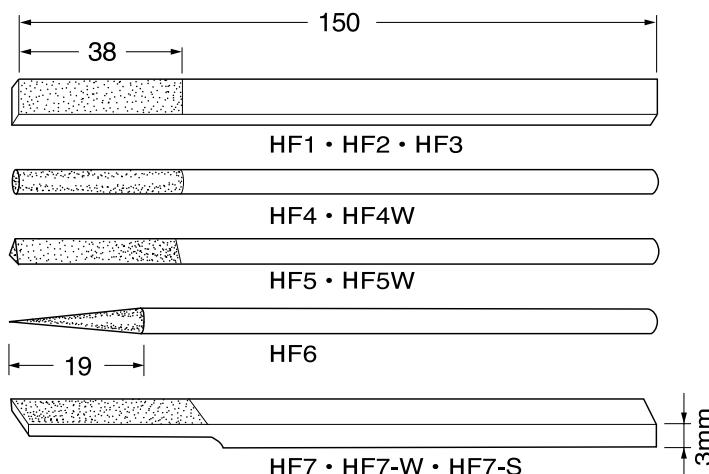
### Ordering Code (Examples)



**KY-HW12:** 12 pcs set/PVC pouch (50 mm diamond length, 170 mm overall length)

Diamond Grit	Ordering Code	Remark						
D120	HW-2WH		HW-3WH		HW-6WH		HW-8WH	
D230	HW-2WN		HW-3WN		HW-6WN		HW-8WN	
D325	HW-2WQ		HW-3WQ		HW-6WQ		HW-8WQ	
D400	HW-2WR		HW-3WR		HW-6WR		HW-8WR	
D600	HW-2WU		HW-3WU		HW-6WU		HW-8WU	

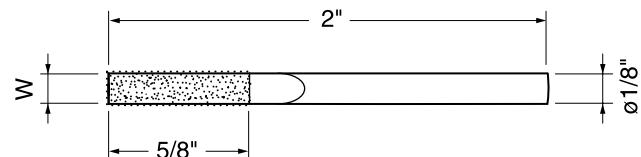
## Diamond Hand Files (HF)



Ordering Code	Shape	Size	Grit		Remark
HF-1A	■	1/8"x1/8"	100	200	
HF-2A	■	1/8"x1/4"	100	200	
HF-2W	■	1/8"x1/4"	100	200	
HF-3A	■■	1/8"x3/8"	100	200	
HF-3W	■■	1/8"x3/8"	100	200	
HF-3S	■■■	1/8"x1/2"	100	200	
HF-4A	○	1/8"	100	200	
HF-4W	○	1/4"	100	200	
HF-5A	△	1/8"	100	200	
HF-5W	△	1/4"	100	200	
HF-6A	○	1/8"	100	200	
HF-7A	■	1/32"x5/32"	100	200	
HF-7W	■	3/64"x1/4"	100	200	
HF-7S	■■	3/64"x5/16"	100	200	

## Diamond Machine Files

5/8" diamond length, 1/8" shank,  
2" overall length, Standard grain size: D100



Ordering Code	Shape	Dimensions	Grit	Remark
MF-1E	■	.020"x.125"		
MF-2E	■	.030"x.125"		
MF-3E	■	.040"x.125"		
MF-2F	■■	.040"x.078"		
MF-3F	■■	.040"x.120"		
MF-4F	■■■	.040"x.157"		
MF-5F	■■■	.078"x.204"		
MF-6F	■■■	.040"x.120"		
MF-1C	○○	.098"x.196"		
MF-2C	○○	.120"x.250"		

Ordering Code	Shape	Dimensions	Grit	Remark
MF-2T	△	.078" side		
MF-3T	△	.127" side		
MF-4T	△	.157" side		
MF-1R	○	.042" diam.		
MF-2R	○	.080" diam.		D100
MF-3R	○	.127" diam.		
MF-4R	○	.157" diam.		
MF-1H	▷	.040" radius		
MF-2H	▷	.060" radius		
MF-3H	▷	.078" radius		

Note: Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.



**KY-AL10 10pcs Set / PVC pouch**

Item	Ordering No.	Grit	Dimension	Remark
10	ALF-TWH	D120	6 x 20 x 0.65mm on nib	
11	ALF-6WH	D120	6 x 40 x 0.65mm on nib	
12	ALF-6WF	D200	6 x 40 x 0.65mm on nib	
13	ALF-6WU	D600	6 x 40 x 0.65mm on nib	
14	ALF-3WH	D120	3 x 20 x 0.65mm on nib	
15	ALF-3WF	D200	3 x 20 x 0.50mm on nib	
16	ALF-3WU	D600	3 x 20 x 0.50mm on nib	
17	ALF-2WH	D120	2 x 20 x 0.65mm on nib	
18	ALF-2WF	D200	2 x 20 x 0.50mm on nib	
19	ALF-2WU	D600	2 x 20 x 0.50mm on nib	

**KY-NS10 10pcs set / PVC pouch**

Item	Ordering No.	Grit	Dimension	Remark
20	NS-6WU	D600	56 x 6 x 15 x 0.50mm on nib	
21	NS-6WR	D400	56 x 6 x 15 x 0.50mm on nib	
22	NS-3WF	D200	56 x 3 x 15 x 0.50mm on nib	
23	NS-3WR	D400	56 x 3 x 15 x 0.50mm on nib	
24	NSL-6WU	D600	72 x 6 x 15 x 0.50mm on nib	
25	NSL-6WR	D400	72 x 6 x 15 x 0.50mm on nib	
26	NSL-6WF	D200	72 x 6 x 15 x 0.50mm on nib	
27	NSL-3WU	D600	72 x 3 x 15 x 0.50mm on nib	
28	NSL-3WR	D400	72 x 3 x 15 x 0.50mm on nib	
29	NSL-3WF	D200	72 x 3 x 15 x 0.50mm on nib	

**KY-NW10 10pcs set / PVC pouch**

(130mm O.A.L. x ø3mm shaft)

Item	Ordering No.	Grit	Dimension	Remark
30	NW-2WU	D600	2 x 30 x 0.40mm on nib	
31	NW-2WR	D400	2 x 30 x 0.45mm on nib	
32	NW-2WF	D200	2 x 30 x 0.50mm on nib	
33	NW-4WU	D600	4 x 30 x 0.40mm on nib	
34	NW-4WR	D400	4 x 30 x 0.45mm on nib	
35	NW-4WF	D200	4 x 30 x 0.50mm on nib	
36	NW-6WU	D600	6 x 30 x 0.40mm on nib	
37	NW-6WR	D400	6 x 30 x 0.45mm on nib	
38	NW-6WF	D200	6 x 30 x 0.50mm on nib	
39	NF-3WU	D600	3mm ø x 50mm x 140mm	

**KY-HM10 10pcs set / PVC pouch**

(70mm O.A.L. x 1mm core installed on HMF-Holder)

Item	Ordering No.	Grit	Dimension	Remark
45	HMF-2WU	D600	2 x 40 x 0.40mm on nib	
46	HMF-2WR	D400	2 x 40 x 0.45mm on nib	
47	HMF-2WF	D200	2 x 40 x 0.50mm on nib	
48	HMF-3WU	D600	3 x 40 x 0.40mm on nib	
49	HMF-3WR	D400	3 x 40 x 0.45mm on nib	
50	HMF-3WF	D200	3 x 40 x 0.50mm on nib	
51	HMF-3WH	D120	3 x 40 x 0.60mm on nib	
52	HMF-6WU	D600	6 x 40 x 0.40mm on nib	
53	HMF-6WF	D200	6 x 40 x 0.50mm on nib	
54	HMF-6WH	D120	6 x 40 x 0.60mm on nib	
	HMF-8WR	D400	8 x 40 x 0.45mm on nib	
	HMF-8WF	D200	8 x 40 x 0.50mm on nib	
	HMF-8WH	D120	8 x 40 x 0.60mm on nib	
41	HMF-HOD			

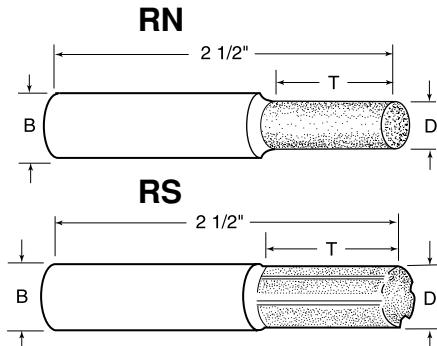
Note:  Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.

## ■ Electroplated Diamond Routers

### Application:

Used with hand operated tools, drill presses and milling machines, Idea for routing and reaming highly abrasive materials, such as aluminum, fiberglass, plastics etc.

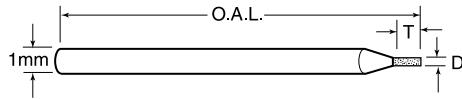


Sizes			Standard Grit No.	Non-Fluted		Fluted	
D	T	B		Tool Code	Remark	Tool Code	Remark
1/8"	1/2"	1/4"	D60	RN-113		RS-113	
1/8"	1"	1/4"	D60	RN-125		RS-125	
1/4"	1/2"	1/4"	D40	RN-213		RS-213	
1/4"	1"	1/4"	D40	RN-225		RS-225	
3/8"	1/2"	1/2"	D40	RN-313		RS-313	
3/8"	1"	1/2"	D40	RN-325		RS-325	
1/2"	1/2"	1/2"	D40	RN-413		RS-413	
1/2"	1"	1/2"	D40	RN-425		RS-425	
3/4"	1/2"	1/2"	D40	RN-613		RS-613	
3/4"	1"	1/2"	D40	RN-625		RS-625	
1"	1/2"	1/2"	D40	RN-813		RS-813	
1"	1"	1/2"	D40	RN-825		RS-825	

## ■ Diamond Plated Micro Drills

### Application:

Micro drills are specifically designed for small hole drilling of sapphire and fine ceramics.



## ■ Diamond Plated Twist Drills

### Application:

Diamond twist drills are useful for drilling circuit boards, fiberglass, asbestos, nylon, plastics and resin composites.



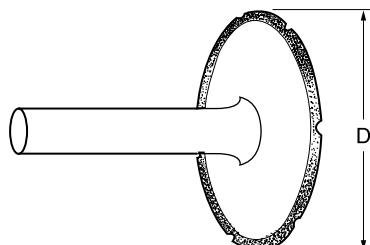
Tool Code	D	T	O.A.L.	Grit	Remark
MD-017	0.17mm	0.007"	0.7mm 0.028"	17.5mm 11/16"	D600
MD-020	0.20mm	0.008"	0.9mm 0.036"	17.5mm 11/16"	D600
MD-022	0.22mm	0.009"	1.1mm 0.044"	17.5mm 11/16"	D600
MD-025	0.25mm	0.010"	1.2mm 0.048"	17.5mm 11/16"	D400
MD-027	0.27mm	0.011"	1.4mm 0.056"	20mm 13/16"	D400
MD-030	0.30mm	0.012"	1.4mm 0.056"	20mm 13/16"	D400
MD-033	0.33mm	0.013"	1.6mm 0.063"	20mm 13/16"	D400
MD-035	0.35mm	0.014"	1.8mm 0.071"	20mm 13/16"	D400
MD-038	0.38mm	0.015"	2.0mm 0.079"	20mm 13/16"	D400

Tool Code	Grit	T(mm)	Diamond Head Dia.	Remark
TW-016	D100	10mm	1.6mm (1/16")	
TW-032	D100	10mm	3.2mm (1/8")	
TW-064	D100	12mm	6.4mm (1/4")	
TW-095	D100	15mm	9.5mm (3/8")	
TW-127	D100	15mm	12.7mm (1/2")	

## ■ Diamond Plated Mounted Saws

### Application:

Ideal for cutting off semi-gem, aluminum, fiberglass, plastics, and other nonmetallic space-age composite materials etc.

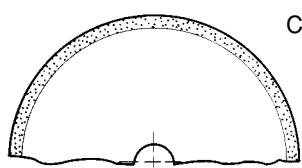
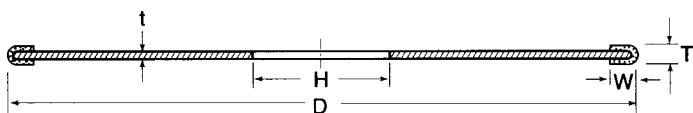


Tool Code	Diameter (D)	Thickness	Shank	O.A.L.	Grit	Remark
MS-025	25mm (1")	2.4mm (3/32")	6.35mm (1/4")	50mm (2")	D40	
MS-038	38mm (1.5")	2.4mm (3/32")	6.35mm (1/4")	50mm (2")	D40	
MS-050	50mm (2")	2.4mm (3/32")	9.53mm (3/8")	50mm (2")	D40	
MS-075	75mm (3")	3.2mm (1/8")	12.7mm (1/2")	50mm (2")	D40	
MS-090	90mm (3.5")	3.2mm (1/8")	12.7mm (1/2")	50mm (2")	D40	
MS-100	100mm (4")	3.2mm (1/8")	12.7mm (1/2")	50mm (2")	D40	

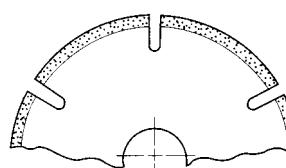
\* Specification for reference only. Actual product may vary.

## ■ Electroplated Diamond Circular Saws

**Application:** Ideal for cutting of highly abrasive materials such as alumina, fiberglass, Plastics and other nonmetallic space age composite materials.



Continuous Rim Saws



Slotted Saws

Tool Code	D	T	H	Grit	Remark
SC-020	2"	1/16"	1/4"	D40	
SC-021	2"	3/32"	1/4"	D40	
SC-030	3"	3/32"	1/4"	D40	
SC-040	4"	3/32"	1/2"	D40	
SC-060	6"	3/32"	1/2"	D40	
SC-070	7"	1/16"	1/2"	D40	
SC-080	8"	3/32"	5/8"	D40	
SC-100	10"	1/8"	5/8"	D40	
SC-152	152mm	1.2mm	16 , 19.05 25.4, 31.75	D60	
SC-200	200mm	1.2mm	25.4	D60	
SC-250	250mm	1.2mm	25.4	D60	
SC-300	300mm	1.2mm	25.4	D60	

Tool Code	D	T	H	Grit	Remark
SS-020	2"	1/16"	1/4"	D40	
SS-030	3"	3/32"	1/4"	D40	
SS-040	4"	3/32"	1/2"	D40	
SS-060	6"	3/32"	1/2"	D40	
SS-080	8"	3/32"	1/2"	D40	
SS-100	10"	1/8"	1/2"	D40	
SS-120	12"	1/8"	1/2"	D40	
SS-140	14"	5/32"	1/2"	D40	
SS-160	16"	5/32"	1"	D40	
SS-180	18"	5/32"	1"	D40	
SS-200	20"	5/32"	1"	D40	
SS-240	24"	5/32"	1"	D40	

## ■ Diamond Circular Saws

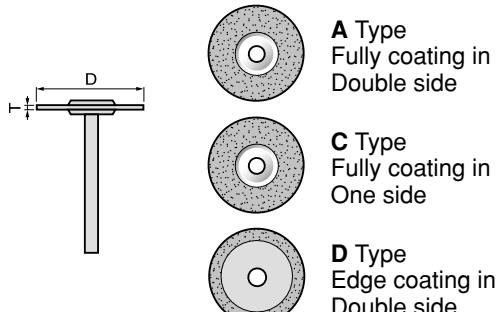
Circular Saws with wear bars	Circular Saws with mounting holds

### Application:

Circular Saws with wear bars are used in off-hand cutting along profiles to avoid hindering in the cut.

Tool Code	D	T	H	Grit	Remark
SW-020	2"	1/16"	1/4"	D40	
SW-030	3"	3/32"	1/4"	D40	
SW-040	4"	3/32"	1/2"	D40	

## ■ Diamond Mini Discs with Mounted Shank



**Shank Specification:** (46mm overall length)

Shank Code	Shank Size	Remark
H234	ø2.34mm	
H300	ø3mm	

### Discs Specification:

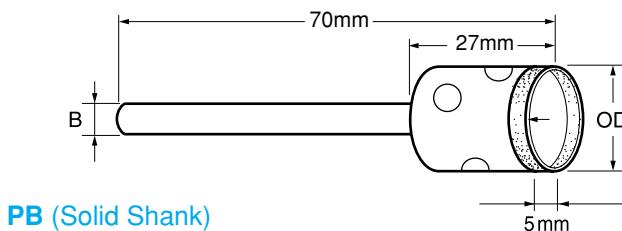
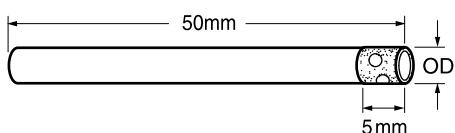
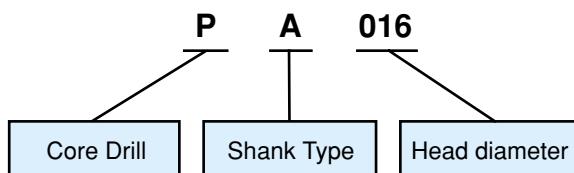
Tool Code	D x T x H	Remark	Tool Code	D x T x H	Remark
S88AR	25x0.2x1.6		S87AF	22x0.35x1.6	
S88AF	25x0.35x1.6		S87DR	22x0.2x1.6	
S88AH	25x0.5x1.6		S87DF	22x0.35x1.6	
S88DR	25x0.2x1.6		S87CR	22x0.19x1.6	
S88DF	25x0.35x1.6		S87CF	22x0.28x1.6	
S88DH	25x0.5x1.6		S86AF	19x0.35x1.6	
S88CF	25x0.28x1.6		S86AH	19x0.5x1.6	
S88CH	25x0.38x1.6		S85DH	15x0.5x1.6	
S87AR	22x0.2x1.6		S83AR	8x0.2x1.6	

\* Specification for reference only. Actual product may vary.

## ■ Electroplated Diamond Core Drills

**Application:** Diamond plated core drills can meet high performance on glass and ceramics drilling, they provide fast, reliable cutting.

### Ordering Code (Examples)

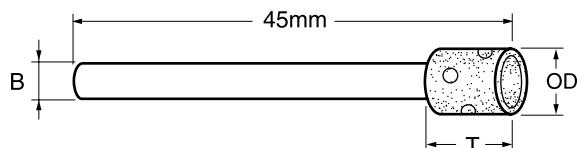


**PA (Tube shank)**

**PB (Solid Shank)**

Tool No.	O.D.	Pipe thick	Grit	Drains	Remark
PA-016	1.6mm	1/16"	D140	-	
PA-024	2.4mm	3/32"	D140	-	
PA-032	3.2mm	1/8"	D140	1ø x 4	
PA-040	4.0mm	5/32"	D140	1ø x 4	
PA-048	4.8mm	3/16"	D100	2ø x 4	
PA-064	6.4mm	1/4"	D100	2ø x 4	
PA-080	8.0mm	5/16"	D100	3ø x 4	
PA-095	9.5mm	3/8"	D100	3ø x 4	
PA-111	11.1mm	7/16"	D80	4ø x 4	
PA-127	12.7mm	1/2"	D80	4ø x 4	

Tool No.	O.D.	Pipe thick	Grit	Drains	B	Remark
PB-143	14.3mm	1mm	D60	5ø x 4	6mm	
PB-159	15.9mm	1mm	D60	5ø x 4	6mm	
PB-175	17.5mm	1mm	D60	5ø x 4	6mm	
PB-190	19mm	1mm	D60	5ø x 4	6mm	
PB-206	20mm	1mm	D60	6ø x 6	12.7mm	
PB-222	22.2mm	1mm	D60	6ø x 6	12.7mm	
PB-238	23.8mm	1mm	D60	6ø x 6	12.7mm	
PB-254	25.4mm	1mm	D60	6ø x 6	12.7mm	
PB-508	50.8mm	1.2mm	D40	(19x5) x 4	12.7mm	
PB-762	76.2mm	1.2mm	D40	(19x5) x 4	12.7mm	



**PE (3mm shank) PG (2.34mm shank)**

Tool No. (3B)	Tool No. (2.34B)	O.D.	T	Pipe thick	Pipe Dept.	Grit	Drains	Remark
PE-015	PG015	1.5mm	7mm	0.2mm	7mm	D140	-	
PE-020	PG020	2mm	7mm	0.3mm	7mm	D140	1ø x 4	
PE-025	PG025	2.5mm	10mm	0.2mm	7mm	D100	1ø x 4	
PE-030	PG030	3mm	10mm	0.2mm	7mm	D100	1.5ø x 4	
PE-040	PG040	4mm	10mm	0.3mm	7mm	D100	2ø x 4	
PE-050	PG050	5mm	10mm	0.3mm	7mm	D100	2ø x 4	
PE-060	PG060	6mm	10mm	0.3mm	7mm	D100	2ø x 4	
PE-065	PG065	6.5mm	10mm	0.3mm	7mm	D100	2ø x 4	
PE-080	PG080	8mm	10mm	0.3mm	7mm	D100	3ø x 4	
PE-090	PG090	9mm	15mm	0.5mm	12mm	D80	3ø x 4	
PE-095	PG095	9.5mm	15mm	0.5mm	12mm	D80	3ø x 4	
PE-100	PG100	10mm	15mm	0.5mm	12mm	D80	3ø x 4	
PE-110	PG101	11mm	15mm	0.5mm	12mm	D80	4ø x 4	
PE-140	PG140	14mm	15mm	0.5mm	12mm	D80	5ø x 4	

Note:  Indicating standard stock available for grits to be marked in the above.

\* Specification for reference only. Actual product may vary.

## ■ Standard Specifications

Application	Micron Range ( $\mu\text{m}$ )	Mesh Size	Color	Remark
Extra Fine, Applying finest finishes on metals and ceramics	0.25 (0~0.5) 0.5 (0~1) 1 (0~2) 2 (1~3)	#100,000 #60,000 #14,000 #11,000	Grey Light Grey Ivory Ivory	
Super Fine, Final finishing for dies, molds, seals (RMS 4-12 $\mu\text{m}$ )	3 (2~4) 4.5 (3~6) 6 (4~8) 9 (6~12) 12 (8~15)	#8,000 #5,000 #3,000 #1,800 #1,500	Light Yellow Yellow Orange Light Green Green	
Fine finishing preparatory lapping (RMS 12-20 $\mu\text{m}$ )	15 (10~20) 20 (15~25) 25 (20~30) 35 (30~40) 40 (38~45) 76 (65~85) 91 (75~97)	#1,200 #1,000 #800 #600 #400 #200 #170	Light Blue Blue Auburn Red Purple Black Black	

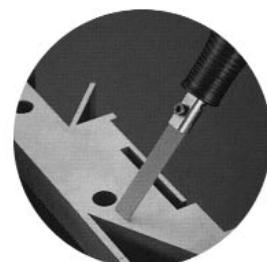
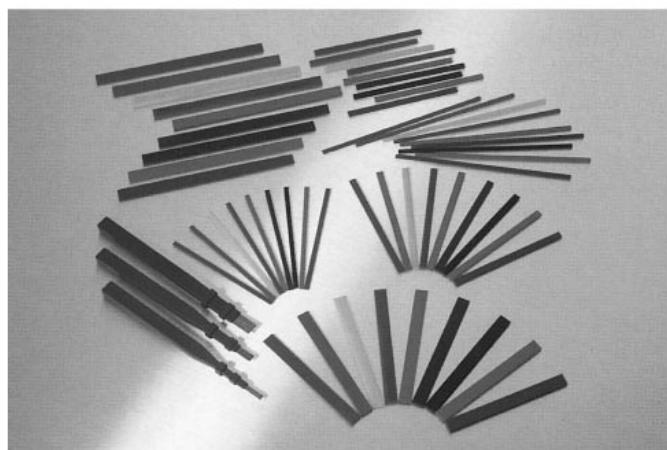


Diamond Compound : 5g/pc



Diamond Powder : 10cts/bottle

## Ceramic Fiber Stone



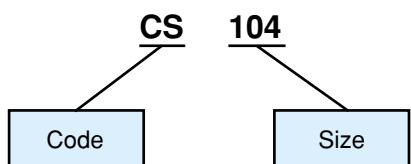
### Application

Finishing on molds, deburring, refurbishing and polishing on various materials.

### Applicable objects

Not only for various metals like normal, special & stainless steels, copper, aluminum and alloys, but also silicone, magnetic materials, plastics, stones, Jewelry, etc.

## ■ Product No.



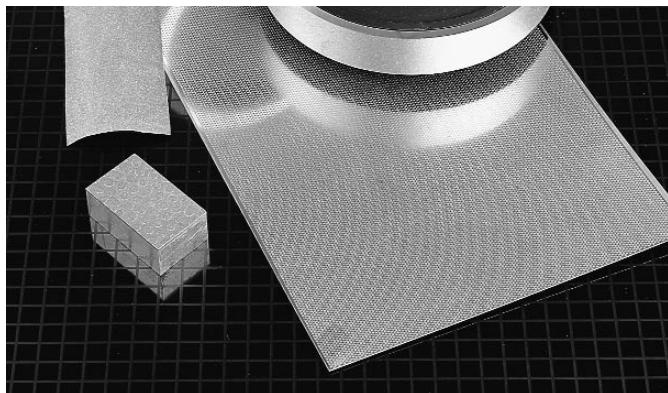
Product No.	Size	Remark
CS104	1 <sup>T</sup> x 4 <sup>W</sup> x 100 <sup>L</sup>	
CS106	1 <sup>T</sup> x 6 <sup>W</sup> x 100 <sup>L</sup>	
CS110	1 <sup>T</sup> x 10 <sup>W</sup> x 100 <sup>L</sup>	
CS310	3ø x 100L	

## ■ Color-Coded Identification

R RED		#1200	N NAVY BLUE		#360
P PINK		#1000	BL BLACK		#280
Y YELLOW		#700	Or ORANGE		#250
B LIGHT BLUE		#400	Br BROWN		#180

\* Specification for reference only. Actual product may vary.

## Electroplated Diamond Sheets



### ■ Standard Sizes and Specifications

Product No.	Size	Grit	Remark
EDPL	240 x 50	D200, D300, D500 D600, D800 D1000, D1200 D1500, D3000	

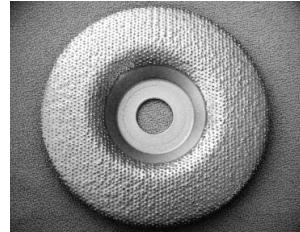
Diamond sheets are used for lapping and polishing carbide, ceramics, super alloys, and highly tough carbon chrome steel mold. The standard dimensions are 50mm x 240mm. With available grits from #200 to #3000.

## Diamond Wheel for Stone

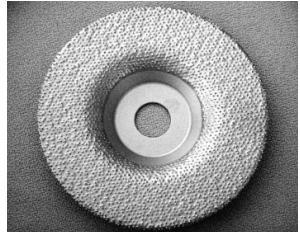
### ■ DG-Turbo Diamond Discs

DG-Turbo Diamond Discs are ideal tool for trimming and grinding stone and concrete. It can conveniently be mounted on a portable power grinder. The diamond discs is designed to work on diversified materials including granite marble, refractory, ceramic, glass, cement and concrete.

Type 27AR



Type 27A



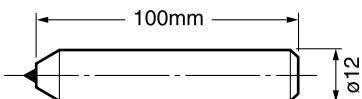
### ● Standard Sizes & Specifications

Product No.	D x H	Shape	Grit	Remark
ZG4Z03C01	100 x 16	27AR	D30	
ZG4Z03C06	100 x 16	27AR	D40	
ZG4Z03C10	100 x 16	27AR	D60	
G4DLP1K5206	100 x 16	27A	D30	
ZG4Z03C05	100 x 16	27A	D40	
G4DLP1K5205	100 x 16	27A	D60	
ZG4Z03C04	115 x 22	27AR	D30	
ZG4Z03C08	115 x 22	27AR	D40	
ZG4Z03C12	115 x 22	27AR	D60	
ZG4Z03C03	115 x 22	27A	D30	
ZG4Z03C07	115 x 22	27A	D40	
ZG4Z03C11	115 x 22	27A	D60	



\* Specification for reference only. Actual product may vary.

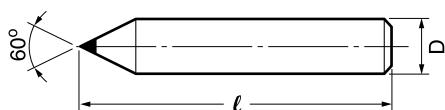
## ■ Single Point Diamond Dressers



Product Code	Cts	Remark
SD005	1/8 ct	
SD010	1/4 ct	
SD015	0.3 ct	
SD020	1/3 ct	
SD025	1/2 ct	
SD033	3/4 ct	
SD050	1.0 ct	
SD075	1-1/2 ct	
SD100	2.0 ct	

Note: Other Shank sizes are available on request.

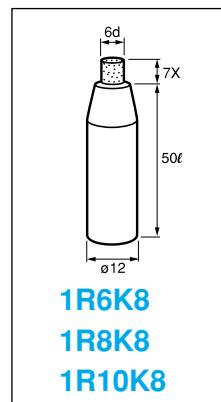
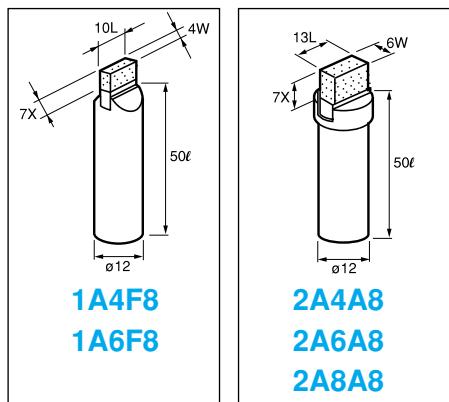
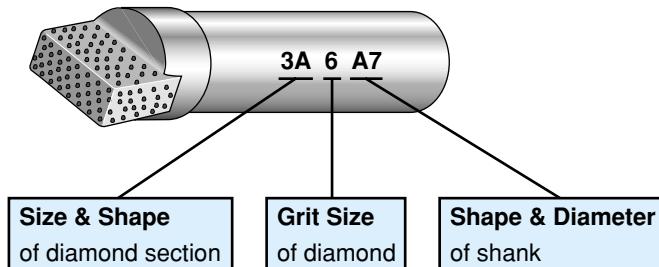
## ■ Cone Point Diamond Dressers



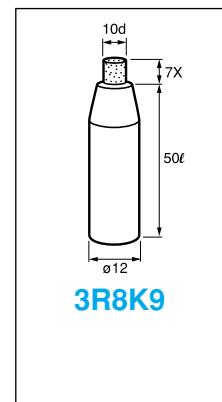
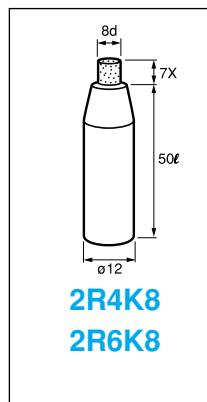
Diamond Sizes & Angle	Shank		Remark
	Diameter	Length	
KD 30-60°	Standard	1/8"	1-1/2"
KD 40-60°	Heavy duty	1/8"	1-1/2"
KD 40-60°	Heavy duty	1/8"	1"
KD 30-60°	Standard	1/4"	2"
KD 40-60°	Heavy duty	1/4"	2"
KD 40-60°	Heavy duty	10mm	50mm

Note: Other Shank sizes and Diamond sizes and Angle 75° are available on request.

## ■ Impregnated Multi-Point Diamond Dressers



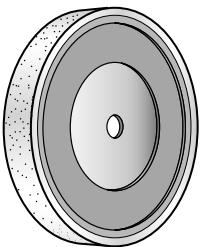
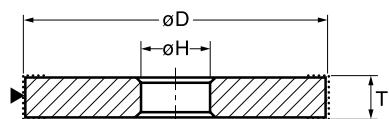
Grit Size of Dresser	4	6	8	10	12	Remark
To Dress Grit Size of Grinding Wheels	#46	#54	#120	#180	#150	Special for Vitrified diamond & CBN wheels.



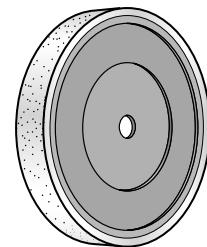
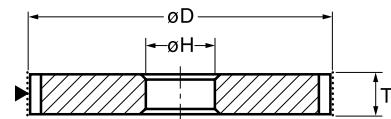
**Note:**  
Other specifications can be accommodated as special products.  
(Example: Dressing of very fine wheels finer grit diamonds can be used where very straight working faces are required)

\* Specification for reference only. Actual product may vary.

## **1A1 Steel Core**



## **1A1-BK Bakelite Core**



Dimensions (D x T x H)

Spec.

Remark

6" x 1" x 1"  
150mm x 25mm x 25.4mm

D100P

6" x 1" x 1"  
150mm x 25mm x 25.4mm

D200P

Dimensions (D x T x H)

Spec.

Remark

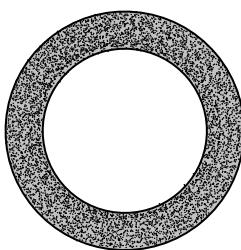
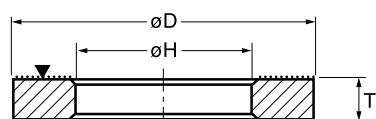
6" x 1" x 1"  
150mm x 25mm x 25.4mm

D100P

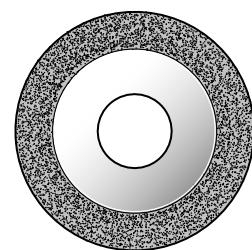
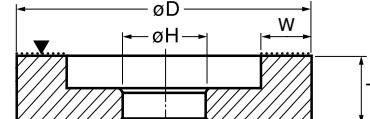
6" x 1" x 1"  
150mm x 25mm x 25.4mm

D200P

## **2A2 Ring Wheels**



## **6A2 Cup Wheels**



Dimensions (D x T x H)

Spec.

Remark

5" x 1/4" x 3"  
125mm x 6mm x 75mm

D100P

5" x 1/4" x 3"  
125mm x 6mm x 75mm

D200P

Dimensions (D x T x H)

Spec.

Remark

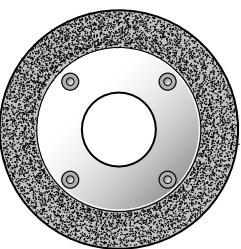
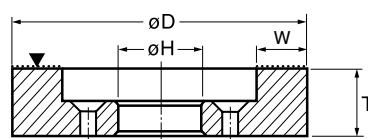
6" x 7/16" x 1-1/4"  
150mm x 11mm x 31.75mm

D100P

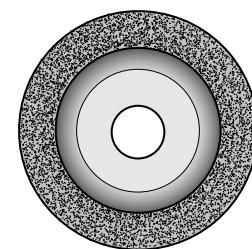
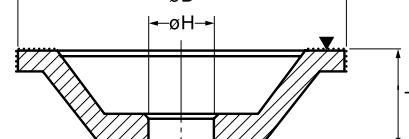
6" x 7/16" x 1-1/4"  
150mm x 11mm x 31.75mm

D200P

## **6A2C Cup Wheels**



## **11C9**



Dimensions (D x T x H)

Spec.

Remark

6" x 7//6" x 1-1/4"  
150mm x 11mm x 31.75mm

D100P

6" x 7//6" x 1-1/4"  
150mm x 11mm x 31.75mm

D200P

Dimensions (D x T x H)

Spec.

Remark

4" x 1-3/8" x 3/4"  
100mm x 35mm x 19.05mm

D100P

4" x 1-3/8" x 3/4"  
100mm x 35mm x 19.05mm

D200P

\* Specification for reference only. Actual product may vary.

**■ Standard Marking (Example)**

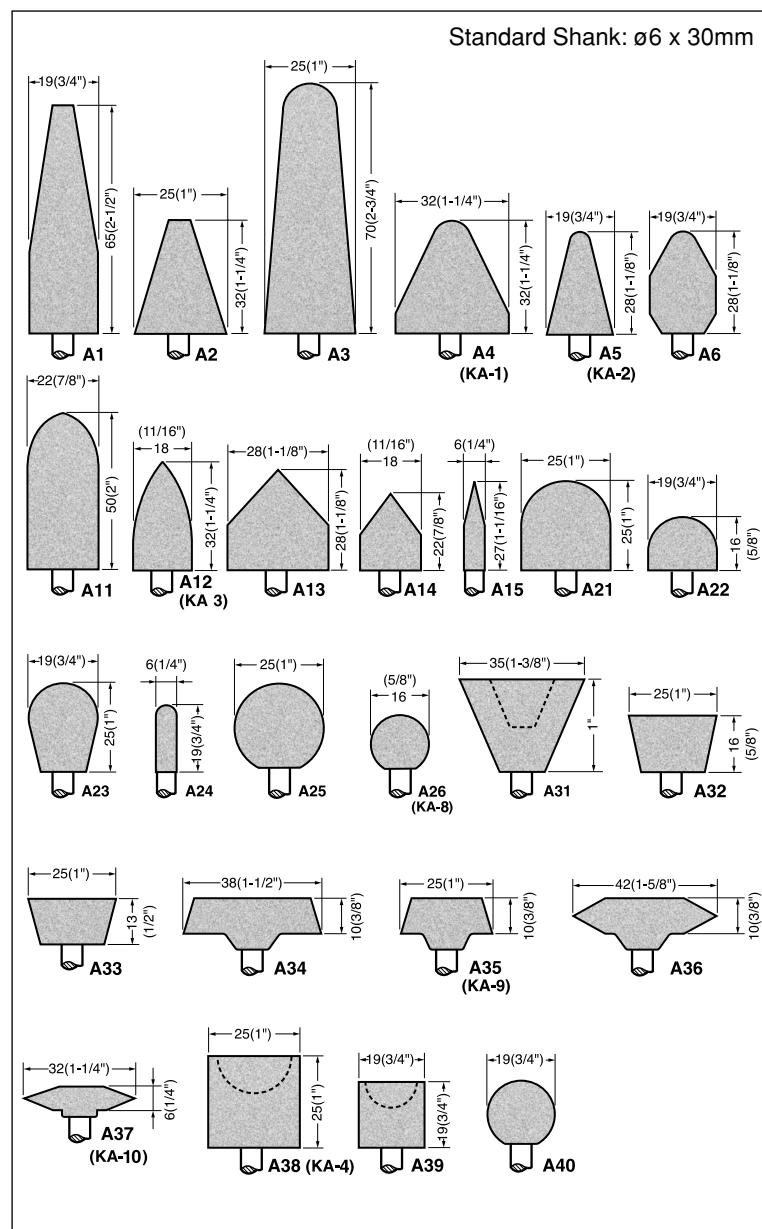
A5	19 x 28 x 6	38A	46	P	V
Shape	D x T x d' x (L)	Abrasives	Grit	Grade	Bond

Shape A is primarily used for off-hand application in foundries, Steel mills, metal working and stone industries, etc...

PA - 38A: For Metal Working  
C - GC: For Stone Industries



Shape	Max. rpm	Spec.	Oder No.	Spec.	Oder No.	Remark
A1	20,960	PA46-PV	YXP41007	38A46-PV	YXT41001	
A2	32,420	PA46-PV	YXP42018	38A46-PV	YXT42016	
A3	15,530	PA46-PV	YXP42011	38A46-PV	YXT42001	
A4	28,550	PA46-PV	YXP43005	38A46-PV	YXT43002	
A5	38,550	PA46-PV	YXP41005	38A46-PV	YXT41002	
A6	38,550	PA46-PV	YXP41001	38A46-PV	YXT41018	
A11	25,430	PA46-PV	YXP42005	38A46-PV	YXT42003	
A12	38,050	PA60-PV	YXP41003	38A46-PV	YXT41015	
A13	31,850	PA46-PV	YXP42017	38A60-PV	YXT42008	
A14	43,440	PA60-PV	YXP41009	38A60-PV	YXT41027	
A15	50,510	PA80-QV	YXP40002	38A80-QV	YXT40001	
A21	35,510	PA46-PV	YXP42001	38A46-PV	YXT42014	
A22	46,120	PA46-PV	YXP41012	38A46-PV	YXT41017	
A23	40,300	PA46-PV	YXP41008	38A46-PV	YXT41012	
A24	56,000	PA80-QV	YXP40007	38A80-QV	YXT40002	
A25	35,510	PA46-PV	YXP42007	38A46-PV	YXT42013	
A26	48,980	PA60-PV	YXP41004	38A60-PV	YXT41016	
A31	20,780	PA46-PV	YXP43002	38A46-PV	YXT43004	
A32	38,200	PA46-PV	YXP42016	38A46-PV	YXT42012	
A33	38,200	PA46-PV	YXP42015	38A46-PV	YXT42011	
A34	25,460	PA46-PV	YXP43004	38A46-PV	YXT43007	
A35	38,200	PA46-PV	YXP4214	38A46-PV	YXT42010	
A36	23,510	PA60-PV	YXP44001	38A60-PV	YXT44002	
A37	30,560	PA60-PV	YXP43001	38A60-PV	YXT43003	
A38	35,510	PA46-PV	YXP42008	38A46-PV	YXT42004	
A39	44,030	PA46-PV	YXP41001	38A46-PV	YXT41015	
A40	35,510	PA46-PV	YXP41010	38A46-PV	YXT41025	



Remark: Standard Packing: 20pcs/box.

\* Specification for reference only. Actual product may vary.

## Mounted Points-B Series

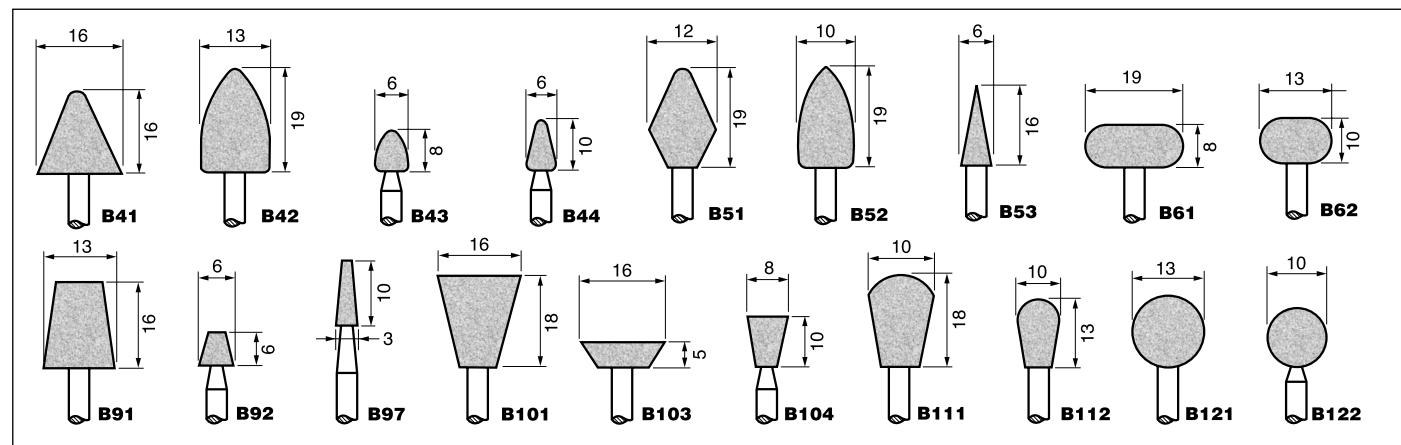
**Shape B** Shape B is primarily used in the tool and die industries.

Standard shank: ø3mm x 30mm .

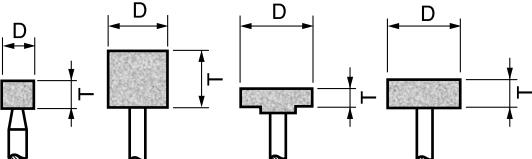
Standard packing: 20pcs/box .

Shape	Spec.	Max. rpm	Order No.	Remark
B41	PA60-QV	21,900	YXP51010	
B42	PA60-QV	19,600	YXP51016	
B43	PA80-QV	42,500	YXP50021	
B44	PA80-QV	42,500	YXP50001	
B51	PA60-QV	21,200	YXP51006	
B52	PA60-QV	25,500	YXP51002	
B53	PA80-QV	42,500	YXP50008	
B61	PA80-QV	33,500	YXP51022	
B62	PA80-QV	36,700	YXP51021	

Shape	Spec.	Max. rpm	Order No.	Remark
B91	PA60-QV	26,900	YXP51007	
B92	PA80-QV	42,500	YXP50020	
B97	PA120-QV	72,000	YXP50010	
B101	PA60-QV	21,900	YXP51015	
B103	PA60-QV	39,700	YXP51019	
B104	PA80-QV	43,700	YXP50019	
B111	PA60-QV	31,800	YXP51018	
B112	PA80-QV	35,000	YXP51017	
B121	PA60-QV	27,000	YXP51005	
B122	PA80-QV	35,000	YXP51001	



## Mounted Points-W Series



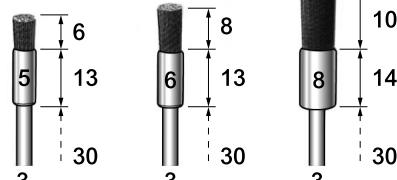
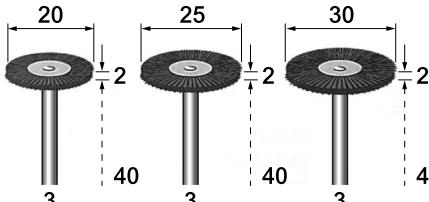
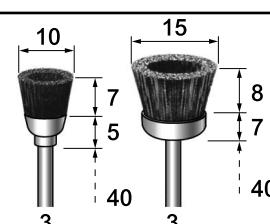
Standard packing: W230, W242 (10 pcs/box), other (20 pcs/box).

Shape	D x T x d'	Max. rpm	Spec.	Order No.	Remark
W144	3 x 6 x 3	72,000	PA120-QV	YXP60027	
W145	3 x 10 x 3	72,000	PA80-QV	YXP60016	
W153	5 x 10 x 3	51,000	PA80-QV	YXP60009	
W154	5 x 13 x 3	51,000	PA80-QV	YXP60006	
W160	6 x 6 x 3	58,000			
W162	6 x 10 x 3	58,000	PA80-QV	YXP60013	
W163	6 x 13 x 3	42,400	PA80-QV	YXP60011	
W164	6 x 19 x 3	42,400	PA80-QV	YXP60008	
W175	10 x 10 x 3	35,000	PA60-QV	YXP61021	
W176	10 x 13 x 3	35,000	PA60-PV	YXP61038	
W177	10 x 19 x 3	25,400	PA60-PV	YXP61041	
W178	10 x 25 x 3	25,400	PA60-QV	YXP61045	
W185	13 x 13 x 3	26,900	PA60-PV	YXP61027	
W186	13 x 19 x 3	26,900	PA60-PV	YXP61033	

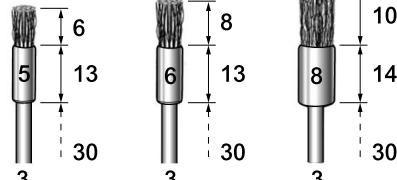
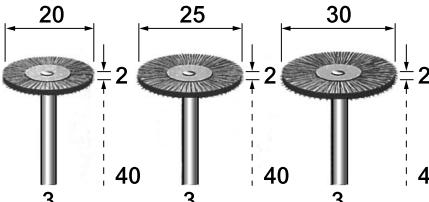
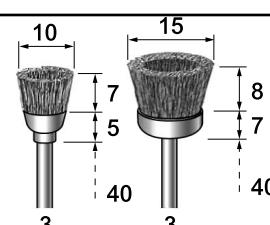
Shape	D x T x d'	Max. rpm	Spec.	Order No.	Remark
W187	13 x 25 x 6	19,600	PA60-PV	YXT61018	
W195	16 x 19 x 6	39,800			
W196	16 x 25 x 6	29,800	38A60-PV	YXT61023	
W204	19 x 19 x 6	25,100	38A46-PV	YXT61024	
W205	19 x 25 x 6	25,100	38A46-PV	YXT61002	
W216	25 x 6 x 6	25,400	38A46-PV	YXT62016	
W217	25 x 10 x 6	25,400	38A46-PV	YXT62006	
W220	25 x 25 x 6	19,100	38A46-QV	YXT62002	
W225	32 x 6 x 6	19,900			
W226	32 x 10 x 6	19,900			
W230	32 x 32 x 6	14,900	38A46-PV	YXT63002	
W235	38 x 6 x 6	16,800	38A46-PV	YXT63001	
W236	38 x 13 x 6	16,800	38A46-PV	YXT63010	
W242	50 x 25 x 6	12,700	38A46-PV	YXT65004	

\* Specification for reference only. Actual product may vary.

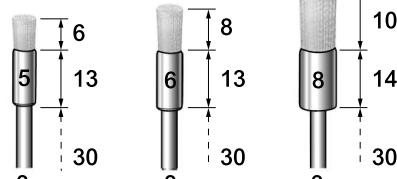
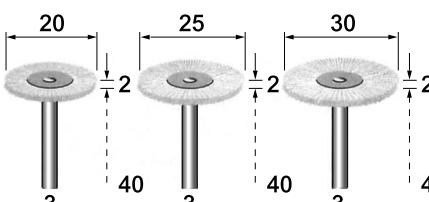
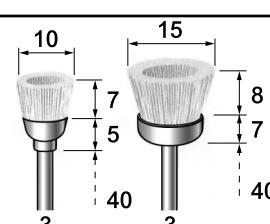
**■ YE Series- Horse hair**

Shape & Size			
Order No.	YEA-5	YEA-6	YEA-8
Remark			

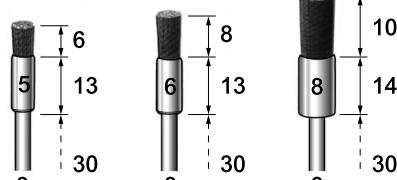
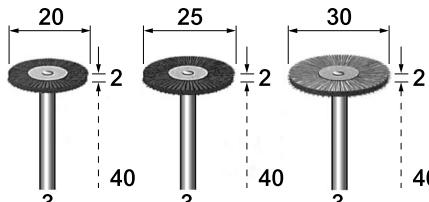
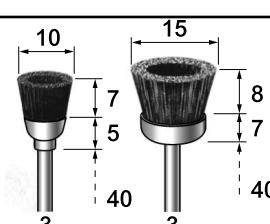
**■ YB Series- Copper Wire**

Shape & Size			
Order No.	YBA-5	YBA-6	YBA-8
Remark			

**■ YX Series- Wool**

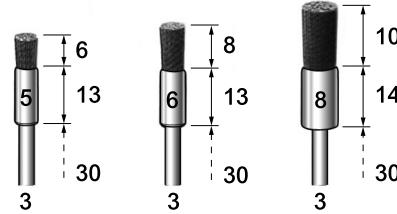
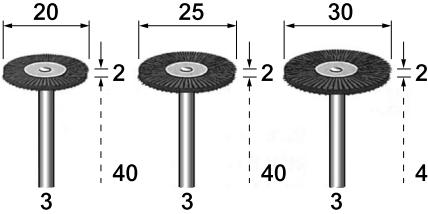
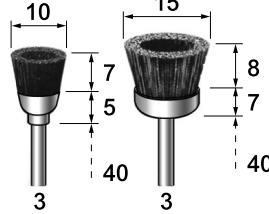
Shape & Size			
Order No.	YXA-5	YXA-6	YXA-8
Remark			

**■ YO Series- Hog bristle**

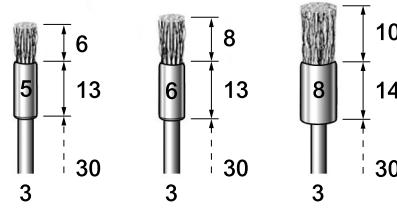
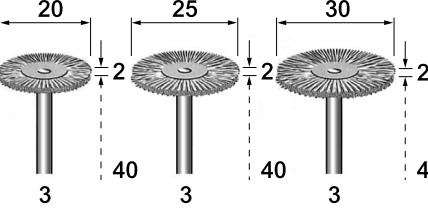
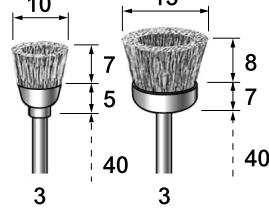
Shape & Size			
Order No.	YOA-5	YOA-6	YOA-8
Remark			

\* Specification for reference only. Actual product may vary.

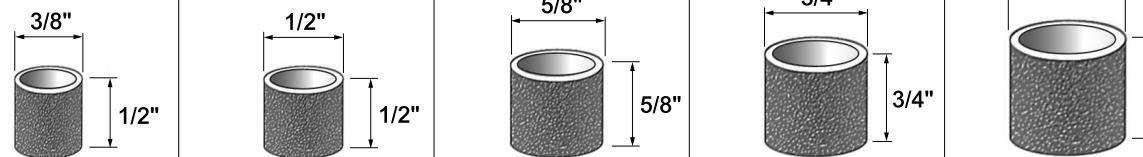
## ■ YS Series- Stainless Wire

Shape & Size			
Order No.	YSA-5	YSA-6	YSA-8
Remark			

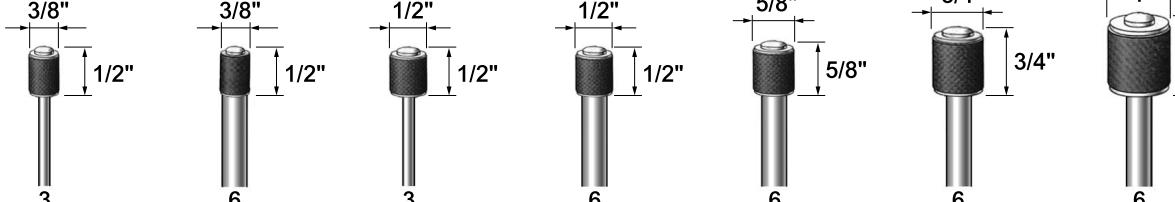
## ■ YC Series- Nylon Wire

Shape & Size			
Order No.	YCA-5	YCA-6	YCA-8
Remark			

## ■ LA Series- Abrasive Bands

Shape & Size	
Order No.	LA-34
Remark	

## ■ LP Series- Drum Arbors

Shape & Size	
Order No.	LP-343
Remark	

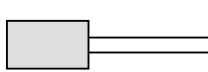
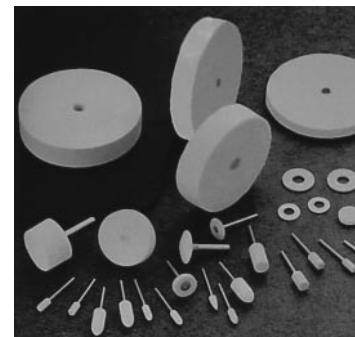
\* Specification for reference only. Actual product may vary.

## Ordering Code (Examples)

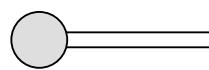
**W E - 0306A**

Felt Bob Code	E: 3B	C: 6B	Shape Code
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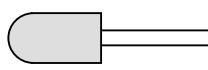
Made from the finest wool without synthetic fibers or fillers, use with various polishing compound to produce a clean high finish on molds and model.



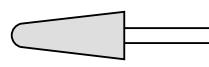
Product No.	D	T	Remark
WE0306A	3	6	
WE0408A	4	8	
WE0509A	5	9	
WE0610A	6	10	
WE0810A	8	10	
WE1014A	10	14	
WE1220A	12	20	
WE2020A	20	20	



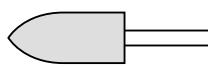
Product No.	D	T	Remark
WE08B	8	8	
WE10B	10	10	
WE12B	12	12	
WE18B	18	18	



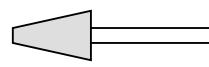
Product No.	D	T	Remark
WE0408C	4	8	
WE0509C	5	9	
WE0610C	6	10	
WE0810C	8	10	
WE1013C	10	13	
WE1214C	12	14	
WE1220C	12	20	



Product No.	D	T	Remark
WE1014R	10	14	
WE1225R	12	25	



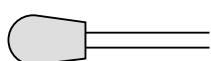
Product No.	D	T	Remark
WE0410J	4	10	
WE0512J	5	12	
WE0616J	6	16	
WE0817J	8	17	
WE1014J	10	14	
WE1020J	10	20	
WE1220J	12	20	
WE1225J	12	25	



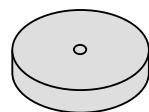
Product No.	D	T	Remark
WE1218T	12	18	

\* Specification for reference only. Actual product may vary.

## Polishing Felt Bobs 3B



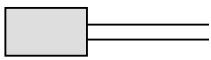
Product No.	D	T	Remark
WE1218H	12	18	



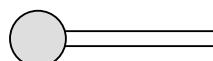
Product No.	D	T	Remark
WER6	6	25	
WER10	10	35	
WER12	12	45	

Product No.	D	T	H	Remark
WE2530E	25	3	1.7	
WE2505E	25	5	1.7	
WE7512E	75	12	9.5	
WE15010E	150	10	12	
WE20510E	205	10	16	
WE25510E	255	10	25	
WE25515E	255	15	25	

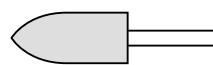
## Polishing Felt Bobs 6B



Product No.	D	T	Remark
WC1520A	15	20	
WC2025A	20	25	
WC2530A	25	30	
WC3040A	30	40	
WC4040A	40	40	
WC2015A	20	15	
WC3020A	30	20	
WC4025A	40	25	
WC5030A	50	30	
WC5040A	50	40	



Product No.	D	T	Remark
WC10B	10	10	
WC12B	12	12	
WC14B	14	14	
WC16B	16	16	
WC18B	18	18	
WC20B	20	20	
WC25B	25	25	



Product No.	D	T	Remark
WC1018J	10	18	
WC1220J	12	20	
WC1422J	14	22	
WC1624J	16	24	
WC2024J	20	24	
WC2525J	25	25	
WC3030J	30	30	

## Air Grinder


**Model PDG-815**

Speed: 65,000 rpm  
 Collet: ø3mm  
 Length: 156mm  
 Weight: 220g


**Model MAG-122N 45°**

Speed: 35,000 rpm  
 Collet: 20mm Plate  
 Length: 140mm  
 Weight: 145g


**Model MAG-093A 90°**

Speed: 23,500 rpm  
 Collet: ø3mm  
 Length: 140mm  
 Weight: 152g


**Model MAG-123N 45°**

Speed: 23,500 rpm  
 Collet: 30mm Plate  
 Length: 140mm  
 Weight: 152g


**Model MAG-093N 90°**

Speed: 23,500 rpm  
 Collet: 30mm Plate  
 Length: 140mm  
 Weight: 152g


**Model MSG-3BSN**

Speed: 65,000 rpm  
 Collet: ø3mm  
 Length: 165mm  
 Weight: 130g


**Model MAG-121N 45°**

Speed: 52,500 rpm  
 Collet: ø3mm & 10mm Plate  
 Length: 140mm  
 Weight: 140g

**Accessories**


Diamond Mounted Points  
(P.14-15)



Ceramic Fiber Stones  
(P.27)



Mounted Points  
(P.31-35)

## Swing Turbo Air Lapper


**Model TLS-03, TLS-07, TLS-12**

Stock: 0.3, 0.7, 1.2mm  
 Frequency: 55,000 spm, 20,000 spm, 10,000 spm  
 Length: 185mm  
 Weight: 200g

## Turbo Air Lapper


**Model TA-03, TA-07, TA-10**

Stock: 0.3, 0.7, 1.0mm  
 Frequency: 50,000 spm, 30,000 spm, 20,000 spm  
 Length: 185mm  
 Weight: 160g


**Model TLL-03, TLL-07, TLL-12**

Stock: 0.3, 0.7, 1.2mm  
 Frequency: 50,000 spm, 22,000 spm, 12,000 spm  
 Length: 185mm  
 Weight: 200g


**Model TAR-05A (Economic)**

Stock: 0.5mm  
 Frequency: 40,000 spm  
 Length: 185mm  
 Weight: 200g

**Accessories**


Ceramic Fiber Stones  
(P.27)



Diamond Hand Files &  
Machine Files (P.23)



Diamond Hand Files &  
Machine Files (P.23)



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