

# NAKANISHI POLISHING TOOLS



POLISHING TOOLS

# TOOLS & SOLUTIONS





## IMMER DAS PASSENDE WERKZEUG

„Gibt es nicht, gibt's bei uns nicht!“. Sie suchen ein Werkzeug für Ihre spezielle Anforderung – wir haben mit Sicherheit das Passende für Sie! Auf 500 Quadratmeter Fläche halten wir neben 38.000 Lagerartikeln noch weitere 800.000 EDV-geführte Systemartikel bereit. Wo sonst treffen Sie auf ein derart breit gefächertes Werkzeugsortiment?





# Symbols used in NAKANISHI Tools Catalogue

|   |  |
|---|--|
|    | <p><b>Shank Diameter</b><br/>Shows shank diameter of the tools. Nakanishi produces tools with several shank diameters.<br/>*Nakanishi micro grinders utilize a collet system, which insures maximum precision. Therefore, please use the collet that best corresponds to the tool shank diameter.</p>  |
|    | <p><b>Standard Package</b><br/>One package is the minimum shipping unit. This number shows the number of pieces in the standard package (bag, box and etc.). Please order the number of packages needed for the desired quantity.</p>  |
|    | <p><b>Maximum allowable speed</b><br/>Do not exceed the maximum allowable tool speed. For your safety, use the tools below the indicated allowable speed. Start at low speed and increase gradually to insure safety. The preceding is particularly important for the use of new tools and machines.<br/>*Maximum allowable speed assumes an overhang of less than 13mm. Decrease speed if the overhang is more than 13mm. Refer to "Precautions for using Nakanishi Tools" on the next page.<br/>*Check the tools and machinery for mechanical defects prior to each use.</p> |
|  | <p><b>Grit</b><br/>This shows grain size of various grinding tools.<br/>Rough Cutting..... 46, 54, 60, 70, 80, 90<br/>Medium Cutting ..... 100, 120, 150, 180<br/>Pre Finishing ..... 220, 240, 280, 320, 400<br/>Finishing..... 500, 600, 700, 800, 1000<br/>Fine Finishing and Mirror Polishing..... 1200, 1500, 1800, 2000, 3000, 4000, 6000, 8000 ...</p>  |

First code number on each page

Shank diameter of the tool

Code number (Order number)

Standard package quantity

Maximum allowable speed

Total length of the tool (mm)

Grit

Note : Specifications may be changed without notice. Colors of the tools in this catalogue may not be the same as actual colors due to printing limitations.

# Precautions for using Nakanishi Tools

## For safe use of the tools

- Please read operation manuals before using any tools.
- Please keep all operation manuals on hand for reference whenever necessary.



### Caution

Incorrect use of the tools, or ignoring 'CAUTIONS for safety' described in the operating manuals, could cause fatal or serious bodily injury.

## CAUTIONS



**Always use safety glasses, mask, face guard for your safety.**



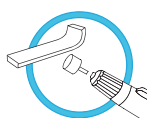
**Do not touch the tools when in operation.** Make sure the work area is neat and there is sufficient light.



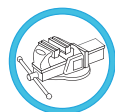
**Do not use the tool where flammable liquids or gases exist.**



**Do not leave operating tools.** Confirm that the tool has stopped completely after switching off.



**Select proper tools and products for your application.** Select tools carefully considering the performance of the tools, work procedure and type/shape of the material.



**Fix the work material firmly in a vise and/or other clamping fixture.**



**Do not wear loose clothing and/or accessories that may be caught in machinery.** Long hair should be secured prior to machine operation.



**Check all tools carefully before use.** Clean the inside of the chuck and tool shank, chips or fine metals inside the chuck could cause tool slippage and result in damage to machinery or bodily injury.



**The tools should be used by taking care of the overhang and below maximum allowable speed.** The catalogue shows the maximum allowable speed at 13 mm overhang (distance between the face of the chuck and the top of the tool shank).



**Fasten the chuck firmly.** Make sure the tool is fully installed in the chuck to avoid tool slippage.



**Do not use damaged or broken electric cords and air hoses.**



**Start at low speed and increase gradually to insure safe work.** This is particularly important for the use of new tools, large cutting tools and elastic tools such as rubber grindstone, sander and brush tools.



**Keep the tools and products in a cool, dry place.**



**Check the tools carefully before use.** Confirm that the tools are free of chips, cracks, splits, scratches, irregular bondings, and out of round shanks, etc.



**Stop grinding or polishing immediately whenever unusual sounds, vibrations, or wear are found.** Restart the work only after the problem is found and corrected.



**Only use attachments, parts, consumable articles and accessories produced by NAKANISHI.**



**Do not apply high pressure to or pry with the tools.** This can break and/or bend the tools. Use the tools within their design limitation. Excessive pressure will decrease the efficiency of your work and cause excessive wear of the tools.

Decrease the speed as shown in the table below, if you are using a longer overhang than 13 mm.

| Overhang        | Maximum allowable speed (min <sup>-1</sup> ) |
|-----------------|--|
| Less than 13 mm | Shown in the catalogue (A)                   |
| Less than 20 mm | (A) x 0.5                                    |
| Less than 25 mm | (A) x 0.3                                    |
| Less than 50 mm | (A) x 0.1                                    |

# ELECTROPLATED DIAMOND/CBN BURS

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools

## Types of Abrasive Grain

### Diamond

**Main Applications** .... Suitable for grinding non-ferrous metals and non-metals ; rubber, plastic, FRP, FRM, stone material, carbide alloy, ceramics, pottery, glass, ferrite, zirconia, quartz, silicon, rare earth magnet, crystal and jewelry.

**Main Work Materials** .... Effective for hard and brittle materials such as non-ferrous metal materials.

- Carbide alloy, cermet, burned material such as alumina
- Stone material, ceramic, refractory material, tile, and concrete
- Ceramics, pottery and silicon
- Glass, crystal and jewelry
- Plastic, FRP, graphite and carbon fiber
- General Grinding
- Heat resistant injection metal and stellite
- Magnetic material, ferrite and rare earth materials

### CBN

**Main Applications** .... \*For grinding of hardened steels such as alloy steels and tool steels, alumite and copper

\*For internal grinding of mold or jig grinder ; parts for precision machine, automobile, bearing and sewing machine.

**Main Work Materials** .... Effective for iron metal materials such as burned materials with iron and steel materials (harder than HRC60)

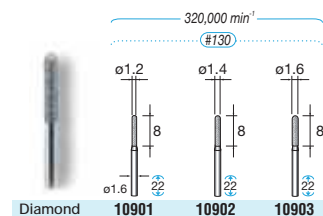
- Steel : carbon steel tools (SK), high speed steel (SKH), tool steel alloys (SKS, SKD), bearing steels (SUJ), structural alloy steels (SCM, SNCM, Scr and SACM), heat resistant steels (SUH) and stainless steels (SUS3 and SUS 4)
- Alloy : Ultra heat resistant cobalt alloys (haynes alloy, stellite, airresist, walex and inconel) Ultra heat resistant nickel alloys (inconel, hastelloy, Colmoy, and waspaloy)
- Cast iron : FC and FCD
- Stainless steel : SUS
- Injection metal
- Titanium alloys
- Magnetic materials: alnico, permalloy and sendust



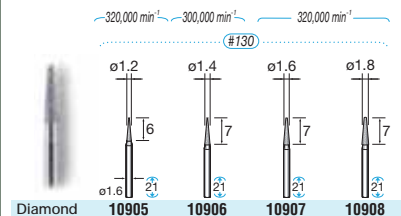
1.6 mm shank diameter series.  
Short type for high-speed rotation.  
Best for grinding very small parts.

### SHANK $\phi 1.6$

5 pcs./pack

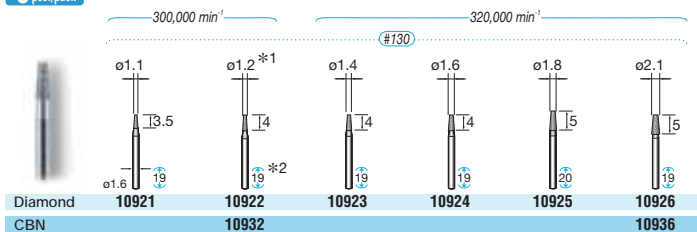


5 pcs./pack



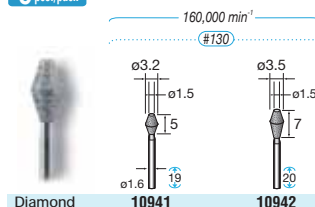
### SHANK $\phi 1.6$

5 pcs./pack

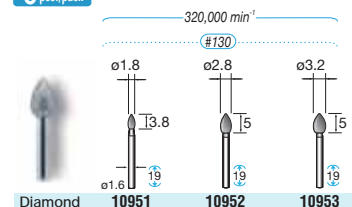


\*1: 10932 is diameter  $\phi 1.3$ .  
\*2: 10932 is Total Length 20mm.

5 pcs./pack

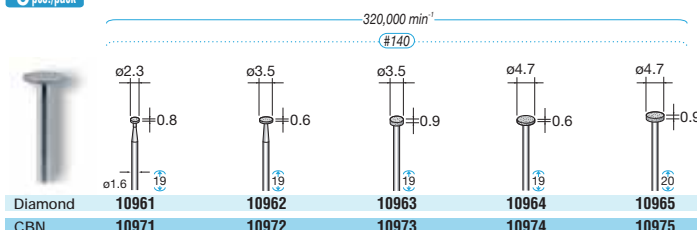


5 pcs./pack

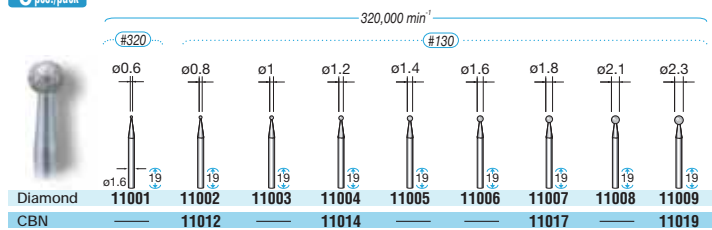


### SHANK $\phi 1.6$

5 pcs./pack

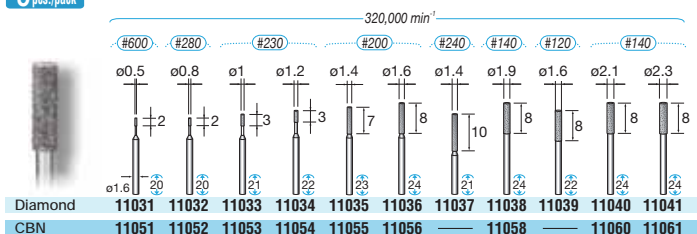


5 pcs./pack

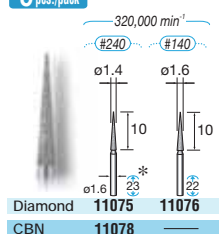


### SHANK $\phi 1.6$

5 pcs./pack

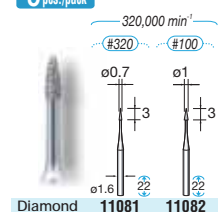


5 pcs./pack

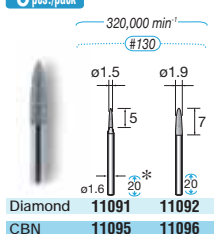


\* 11078 is Total Length 21mm.

5 pcs./pack



5 pcs./pack



\* 11091 is Total Length 22mm.

# ELECTROPLATED DIAMOND/CBN BURS

## SHANK $\phi 1.6$

5 pcs./pack

320,000 min<sup>-1</sup>  
#130

|         |       |       |       |
|---------|-------|-------|-------|
| Diamond | 11101 | 11102 | 11103 |
| CBN     |       | 11106 |       |

5 pcs./pack

320,000 min<sup>-1</sup>  
#130

|         |       |       |       |
|---------|-------|-------|-------|
| Diamond | 11121 | 11122 | 11123 |
| CBN     |       | 11126 | 11127 |

\*1: 11126 is diameter  $\phi 1.5$ .  
\*2: 11126 is Total Length 21mm.

1 pc./pack

320,000 min<sup>-1</sup>  
#130  
30°

|         |       |
|---------|-------|
| Diamond | 11131 |
|---------|-------|

5 pcs./pack

320,000 min<sup>-1</sup>  
#130

|         |       |       |
|---------|-------|-------|
| Diamond | 11141 | 11142 |
|---------|-------|-------|

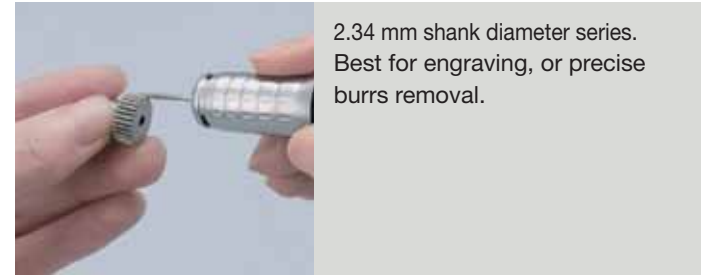
## SHANK $\phi 1.6$

5 pcs./pack

320,000 min<sup>-1</sup>  
#140

|         |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|
| Diamond | 11151 | 11152 | 11153 | 11154 | 11155 | 11156 |
| CBN     | 11161 | 11162 | 11163 | 11164 | 11165 | 11166 |

\* 11165 is Cut Length 1.4.



## SHANK $\phi 2.34$

1 pc./pack

150,000 min<sup>-1</sup>  
#320

|         |       |       |       |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 11201 | 11202 | 11203 | 11204 | 11205 | 11206 | 11207 | 11208 | 11209 | 11210 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

80,000 min<sup>-1</sup>  
#130

|         |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|
| Diamond | 11211 | 11212 | 11213 | 11214 | 11215 |
|---------|-------|-------|-------|-------|-------|

50,000 min<sup>-1</sup>  
#130

|         |       |       |
|---------|-------|-------|
| Diamond | 11216 | 11217 |
|---------|-------|-------|

## SHANK $\phi 2.34$

1 pc./pack

80,000 min<sup>-1</sup>  
#130

|         |       |       |
|---------|-------|-------|
| Diamond | 11221 | 11222 |
|---------|-------|-------|

1 pc./pack

80,000 min<sup>-1</sup>  
#130

|         |       |       |       |
|---------|-------|-------|-------|
| Diamond | 11225 | 11226 | 11227 |
|---------|-------|-------|-------|

1 pc./pack

80,000 min<sup>-1</sup>  
#130

|         |       |       |       |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 11241 | 11242 | 11243 | 11244 | 11245 | 11246 | 11247 | 11248 | 11249 | 11250 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

## SHANK $\phi 2.34$

1 pc./pack

80,000 min<sup>-1</sup>  
#130

|         |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|
| Diamond | 11261 | 11262 | 11263 | 11264 | 11265 |
|---------|-------|-------|-------|-------|-------|

1 pc./pack

80,000 min<sup>-1</sup>  
#400

|         |       |
|---------|-------|
| Diamond | 11301 |
|---------|-------|

1 pc./pack

80,000 min<sup>-1</sup>  
#220

|         |       |
|---------|-------|
| Diamond | 11305 |
|---------|-------|

1 pc./pack

80,000 min<sup>-1</sup>  
#130

|         |       |       |       |       |
|---------|-------|-------|-------|-------|
| Diamond | 11311 | 11312 | 11313 | 11314 |
|---------|-------|-------|-------|-------|

## SHANK $\phi 2.34$

1 pc./pack

80,000 min<sup>-1</sup>  
#130

|         |       |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 11321 | 11322 | 11323 | 11324 | 11325 | 11326 | 11327 | 11328 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|

1 pc./pack

80,000 min<sup>-1</sup>  
#130

|         |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 11331 | 11332 | 11333 | 11334 | 11335 | 11336 | 11337 |
|---------|-------|-------|-------|-------|-------|-------|-------|



# ELECTROPLATED DIAMOND/CBN BURS

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

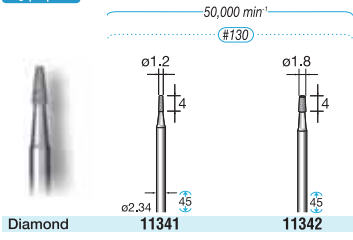
Polishing Brushes

Felt Bobs

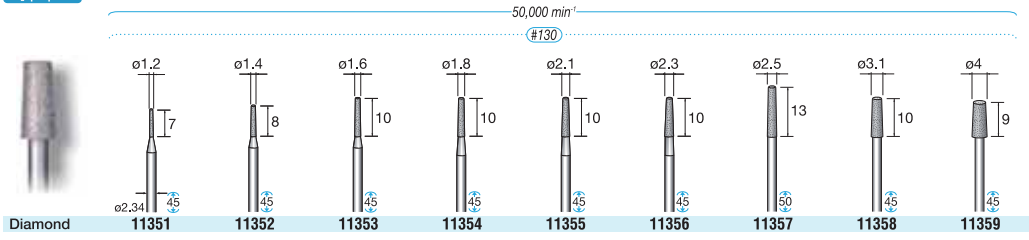
Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools

**SHANK  $\phi 2.34$**

1 pc./pack

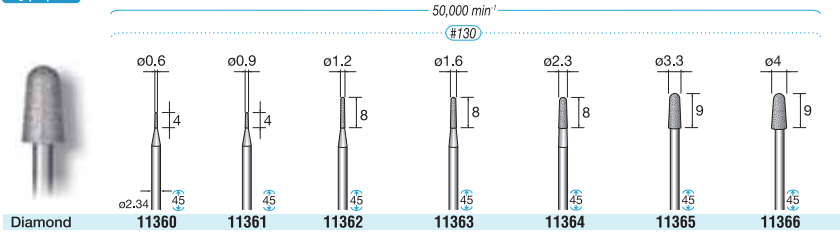


1 pc./pack

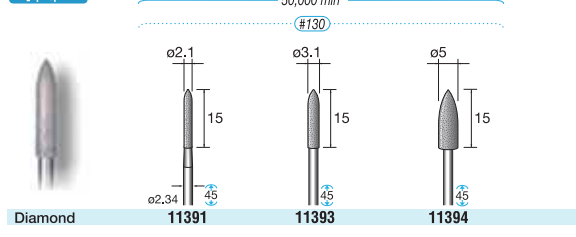


**SHANK  $\phi 2.34$**

1 pc./pack

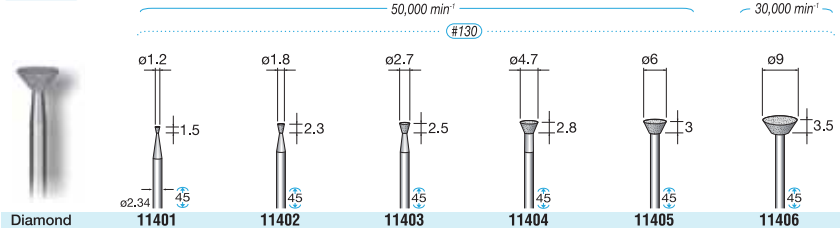


1 pc./pack

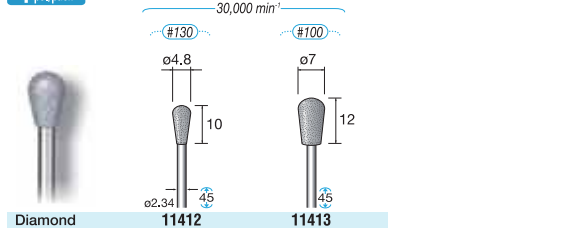


**SHANK  $\phi 2.34$**

1 pc./pack

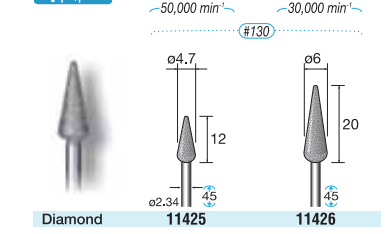


1 pc./pack

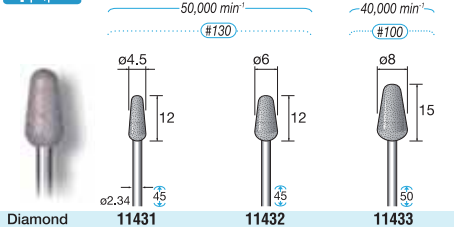


**SHANK  $\phi 2.34$**

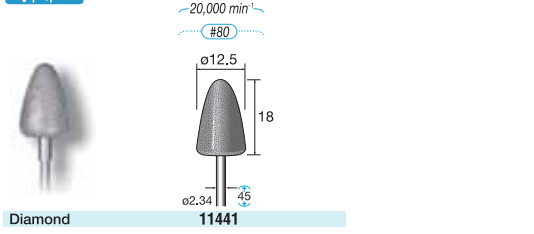
1 pc./pack



1 pc./pack

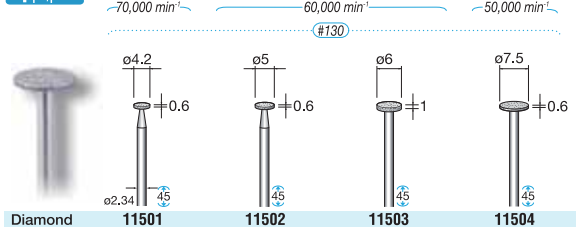


1 pc./pack

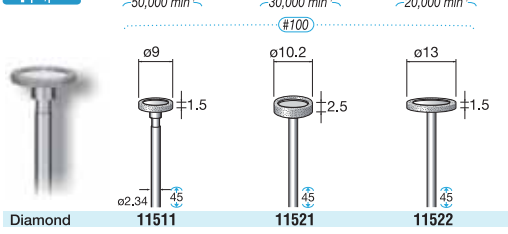


**SHANK  $\phi 2.34$**

1 pc./pack

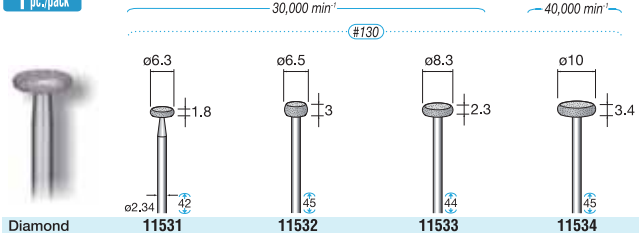


1 pc./pack

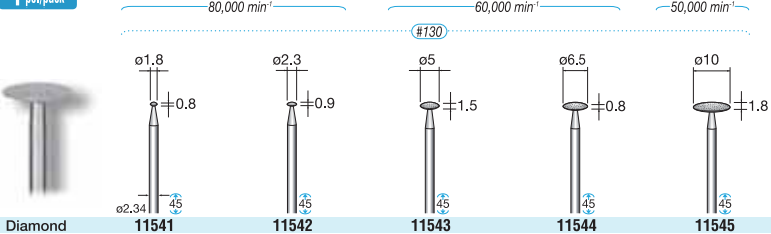


**SHANK  $\phi 2.34$**

1 pc./pack



1 pc./pack



# ELECTROPLATED DIAMOND/CBN BURS



3.0 mm shank diameter series.  
Extremely durable for high precision and fine finish internal grinding.

**SHANK  $\phi 3.0$**

1 pc./pack

60,000 min<sup>-1</sup>

|         |            |       |       |       |       |       |       |
|---------|------------|-------|-------|-------|-------|-------|-------|
|         | #200       |       |       |       |       |       | 11791 |
| Diamond | #325 11803 | 11804 | 11805 | 11806 | 11807 | 11808 |       |
|         | #600 11813 | 11814 | 11815 | 11816 | 11817 | 11818 |       |
|         | #200       |       |       |       |       |       | 11792 |
| CBN     | #325 11823 | 11824 | 11825 | 11826 | 11827 | 11828 |       |
|         | #600 11833 | 11834 | 11835 | 11836 | 11837 | 11838 |       |

1 pc./pack

60,000 min<sup>-1</sup>

|         |            |       |       |       |       |       |       |
|---------|------------|-------|-------|-------|-------|-------|-------|
|         | #200       |       |       |       |       |       | 11793 |
| Diamond | #325 11853 | 11854 | 11855 | 11856 | 11857 | 11858 |       |
|         | #600 11863 | 11864 | 11865 | 11866 | 11867 | 11868 |       |
|         | #200       |       |       |       |       |       | 11794 |
| CBN     | #325 11873 | 11874 | 11875 | 11876 | 11877 | 11878 |       |
|         | #600 11883 | 11884 | 11885 | 11886 | 11887 | 11888 |       |

**SHANK  $\phi 3.0$**

1 pc./pack

92,000 min<sup>-1</sup> #1,000      80,000 min<sup>-1</sup> #600      #320

|         |         |         |       |       |       |
|---------|---------|---------|-------|-------|-------|
| Diamond | * 12001 | * 12002 | 12003 | 12004 | 12005 |
| CBN     | * 12011 | * 12012 | 12013 | 12014 | 12015 |

\* Carbide shank is used for  $\phi 0.1$  and  $\phi 0.2$  mm.

1 pc./pack

80,000 min<sup>-1</sup>

|         |            |            |            |            |            |
|---------|------------|------------|------------|------------|------------|
| Diamond | #320 12006 | #320 12007 | #230 12008 | #230 12009 | #170 12010 |
| CBN     | #320 12016 | #270 12017 | #270 12018 | #230 12019 | #230 12020 |

**SHANK  $\phi 3.0$**

1 pc./pack

80,000 min<sup>-1</sup>

|         |            |       |       |       |       |       |       |       |
|---------|------------|-------|-------|-------|-------|-------|-------|-------|
|         | #100       |       |       |       |       |       |       |       |
| Diamond | #140 12051 | 12052 | 12053 | 12054 | 12055 | 12056 | 12057 | 12058 |
|         | #220 12091 | 12092 | 12093 | 12094 | 12095 | 12096 | 12097 | 12098 |
|         | #320 12111 | 12112 | 12113 | 12114 | 12115 | 12116 | 12117 | 12118 |
|         | #600 12131 | 12132 | 12133 | 12134 | 12135 | 12136 | 12137 | 12138 |
|         | #120       |       |       |       |       |       |       |       |
| CBN     | #140 12151 | 12152 | 12153 | 12154 | 12155 | 12156 | 12157 | 12158 |
|         | #220 12171 | 12172 | 12173 | 12174 | 12175 | 12176 | 12177 | 12178 |

1 pc./pack

80,000 min<sup>-1</sup>      70,000 min<sup>-1</sup>

|         |            |       |       |       |       |       |       |
|---------|------------|-------|-------|-------|-------|-------|-------|
|         | #100       |       |       |       |       |       |       |
| Diamond | #140 12039 | 12040 | 12041 | 12042 | 12043 | 12044 | 12045 |
|         | #220 12099 | 12100 | 12101 | 12102 | 12103 | 12104 | 12105 |
|         | #320 12119 | 12120 | 12121 | 12122 | 12123 | 12124 | 12125 |
|         | #600 12139 | 12140 | 12141 |       | 12143 |       | 12145 |
|         | #120       |       |       |       |       |       |       |
| CBN     | #120 12159 | 12160 | 12161 | 12162 | 12163 | 12164 | 12165 |
|         | #220 12179 | 12180 | 12181 | 12182 | 12183 | 12184 | 12185 |

\* Order in standard package quantities.

# ELECTROPLATED DIAMOND/CBN BURS



High rigidity and long clearance allow for high precision grinding of deep IDs. The up to 3 fold increase in rigidity versus stainless steel tools allows for much more precision and efficient grinding.

**SHANK  $\phi 3.0$**  Carbide

1 pc./pack

|         | 92,000 min <sup>-1</sup> |            |            |            |            |            |            |            |  |
|---------|--------------------------|------------|------------|------------|------------|------------|------------|------------|--|
|         |                          |            |            |            |            |            |            |            |  |
| Diamond | #600 12231               | #600 12232 | #320 12233 | #230 12234 | #230 12235 | #230 12236 | #230 12237 | #140 12238 |  |
| CBN     | #600 12251               | #600 12252 | #320 12253 | #270 12254 | #270 12255 | #230 12256 | #230 12257 | #230 12258 |  |

**SHANK  $\phi 3.0$**  Carbide

1 pc./pack

|         | 92,000 min <sup>-1</sup> |            |            |            |            |
|---------|--------------------------|------------|------------|------------|------------|
|         |                          |            |            |            |            |
| Diamond | #140 12239               | #140 12240 | #140 12241 | #140 12242 | #100 12243 |
| CBN     | #200 12259               | #140 12260 | #140 12261 | #140 12262 | #140 12263 |

|         | 92,000 min <sup>-1</sup> |            |            |            |            |            |
|---------|--------------------------|------------|------------|------------|------------|------------|
|         |                          |            |            |            |            |            |
| Diamond | #100 12244               | #100 12245 | #100 12246 | #100 12247 | #100 12248 | #100 12249 |
| CBN     | #140 12264               | #140 12265 | #140 12266 | #140 12267 | #140 12268 | #140 12269 |



3.0 mm shank diameter series. Extremely durable for high precision burr removal and fine finishing.

**SHANK  $\phi 3.0$**

1 pc./pack

|         | 105,000 min <sup>-1</sup> |            |            |            |            |            |            |            |            |            | 88,000 min <sup>-1</sup> ~ 67,000 min <sup>-1</sup> |  |
|---------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---|--|
|         |                           |            |            |            |            |            |            |            |            |            |   |  |
| Diamond | #320 12311                | #140 12312 | #140 12313 | #140 12314 | #140 12315 | #140 12316 | #140 12317 | #140 12318 | #140 12319 | #140 12320 |   |  |
| CBN     | 12321                     | 12322      | 12323      | 12324      | 12325      | 12309      | 12326      | 12327      | 12328      | 12329      | 12330   |  |

**SHANK  $\phi 3.0$**

1 pc./pack

|         | 105,000 min <sup>-1</sup> |       |       |       |       |       | 88,000 min <sup>-1</sup> |  |  |  |  |  |
|---------|---------------------------|-------|-------|-------|-------|-------|--------------------------|--|--|--|--|--|
|         |                           |       |       |       |       |       |                          |  |  |  |  |  |
| Diamond | 12331                     | 12332 | 12333 | 12334 | 12335 | 12336 |                          |  |  |  |  |  |
| CBN     | 12337                     |       | 12338 |       | 12339 | 12340 |                          |  |  |  |  |  |

|         | 105,000 min <sup>-1</sup> |  | 88,000 min <sup>-1</sup> |  |
|---------|---------------------------|--|--------------------------|--|
|         |                           |  |                          |  |
| Diamond | 12341                     |  | 12342                    |  |

|         | 88,000 min <sup>-1</sup> |       | 67,000 min <sup>-1</sup> |       |
|---------|--------------------------|-------|--------------------------|-------|
|         |                          |       |                          |       |
| Diamond | 12345                    | 12346 | 12347                    | 12348 |

**SHANK  $\phi 3.0$**

1 pc./pack

|         | 105,000 min <sup>-1</sup> |       |       |
|---------|---------------------------|-------|-------|
|         |                           |       |       |
| Diamond | 12351                     | 12352 | 12353 |
| CBN     | 12349                     | 12350 | 12354 |

|         | 88,000 min <sup>-1</sup> |       |       | 67,000 min <sup>-1</sup> |  |  |
|---------|--------------------------|-------|-------|--------------------------|--|--|
|         |                          |       |       |                          |  |  |
| Diamond | 12355                    | 12356 | 12357 |                          |  |  |
| CBN     | 12358                    | 12359 | 12360 |                          |  |  |

|         | 67,000 min <sup>-1</sup> |       |
|---------|--------------------------|-------|
|         |                          |       |
| Diamond | 12361                    | 12362 |

|         | 88,000 min <sup>-1</sup> |  | 67,000 min <sup>-1</sup> |  |
|---------|--------------------------|--|--------------------------|--|
|         |                          |  |                          |  |
| Diamond | 12371                    |  | 12372                    |  |

# ELECTROPLATED DIAMOND/CBN BURS

## SHANK $\phi 3.0$

1 pc./pack

80,000 min<sup>-1</sup> / 70,000 min<sup>-1</sup>

#100

|         |       |       |
|---------|-------|-------|
| Diamond | 12375 | 12376 |
|---------|-------|-------|

1 pc./pack

30,000 min<sup>-1</sup> / 25,000 min<sup>-1</sup> / 20,000 min<sup>-1</sup>

#100

|         |       |       |       |
|---------|-------|-------|-------|
| Diamond | 12381 | 12382 | 12383 |
|---------|-------|-------|-------|

1 pc./pack

105,000 min<sup>-1</sup> / 80,000 min<sup>-1</sup> / 67,000 min<sup>-1</sup> / 105,000 min<sup>-1</sup> / 67,000 min<sup>-1</sup> / 50,000 min<sup>-1</sup>

#140 / #120 / #130

|         |       |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 12401 | 12402 | 12403 | 12404 | 12405 | 12411 | 12412 | 12413 |
| CBN     | 12406 | 12408 | 12409 | 12407 |       |       |       | 12410 |

## SHANK $\phi 3.0$

1 pc./pack

105,000 min<sup>-1</sup> / 67,000 min<sup>-1</sup> / 55,000 min<sup>-1</sup> / 105,000 min<sup>-1</sup> / 67,000 min<sup>-1</sup> / 60,000 min<sup>-1</sup> / 50,000 min<sup>-1</sup>

#130

|         |       |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 12414 | 12415 | 12416 | 12417 | 12428 | 12418 | 12429 | 12419 |
| CBN     | 12420 | 12421 | 12422 | 12423 | 12424 | 12425 | 12426 | 12427 |

1 pc./pack

50,000 min<sup>-1</sup> / 43,000 min<sup>-1</sup>

#130

|         |       |       |       |       |
|---------|-------|-------|-------|-------|
| Diamond | 12431 | 12432 | 12433 | 12434 |
|---------|-------|-------|-------|-------|

## SHANK $\phi 3.0$

1 pc./pack

105,000 min<sup>-1</sup> / 88,000 min<sup>-1</sup>

#140 / #100 / #120

|         |       |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 12451 | 12452 | 12453 | 12454 | 12455 | 12456 | 12457 | 12458 |
| CBN     | 12461 | 12462 | 12463 | 12464 | 12465 | 12466 |       | 12468 |

1 pc./pack

105,000 min<sup>-1</sup> / 88,000 min<sup>-1</sup>

#120

|         |       |       |       |       |
|---------|-------|-------|-------|-------|
| Diamond | 12471 | 12472 | 12493 | 12494 |
| CBN     | 12473 | 12474 |       |       |

## SHANK $\phi 3.0$

1 pc./pack

105,000 min<sup>-1</sup> / 88,000 min<sup>-1</sup>

#120

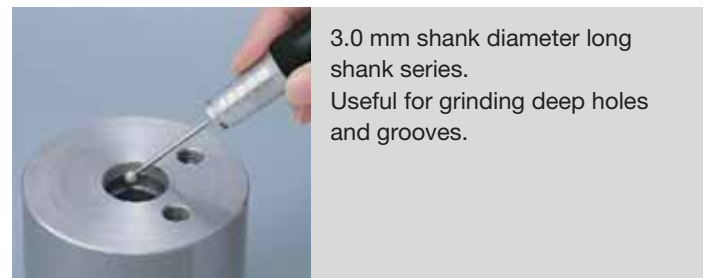
|         |       |       |
|---------|-------|-------|
| Diamond | 12511 | 12512 |
| CBN     | 12513 | 12514 |

1 pc./pack

88,000 min<sup>-1</sup>

#140

|         |       |       |       |
|---------|-------|-------|-------|
| Diamond | 12521 | 12522 | 12523 |
| CBN     | 12524 | 12525 | 12526 |



## SHANK $\phi 3.0$

1 pc./pack

10,000 min<sup>-1</sup> / 6,000 min<sup>-1</sup>

#320 / #220 / #140 / #120

|         |       |       |       |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond | 12701 | 12702 | 12703 | 12704 | 12705 | 12706 | 12707 | 12708 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|

1 pc./pack

10,000 min<sup>-1</sup> / 6,000 min<sup>-1</sup> / 5,000 min<sup>-1</sup>

#120

|         |       |       |       |       |       |
|---------|-------|-------|-------|-------|-------|
| Diamond | 12721 | 12722 | 12723 | 12724 | 12725 |
|---------|-------|-------|-------|-------|-------|



# ELECTROPLATED DIAMOND/CBN BURS

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools

## SHANK $\phi 3.0$

1 pc./pack

60,000 min<sup>-1</sup> / 50,000 min<sup>-1</sup>

#120

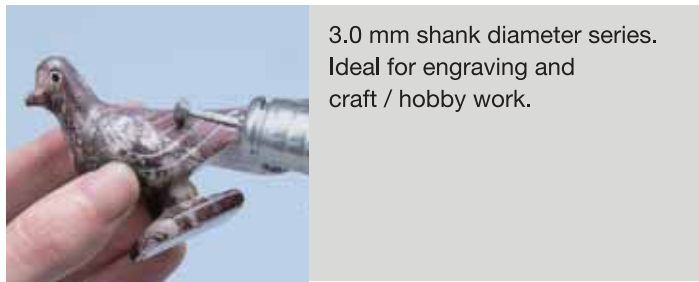
Diamond 12741 12742 12743 12744

1 pc./pack

50,000 min<sup>-1</sup>

#120

Diamond 12745 12746 12747 12748



## SHANK $\phi 3.0$

3 pcs./pack

80,000 min<sup>-1</sup> / 70,000 min<sup>-1</sup>

#150 / #120 / #100

Diamond 12801 12802 12803 12804 12805 12806 12807 12808 12809

## SHANK $\phi 3.0$

3 pcs./pack

80,000 min<sup>-1</sup> / 80,000 min<sup>-1</sup> / 70,000 min<sup>-1</sup>

#180 / #150 / #120 / #150 / #120

Diamond 12811 12812 12813 12814 12815 12816 12817 12818 12819

3 pcs./pack

70,000 min<sup>-1</sup> / 80,000 min<sup>-1</sup> / 70,000 min<sup>-1</sup>

#140 / #100 / #120 / #100 / #140 / #120 / #100

Diamond 12821 12822 12823 12824 12825 12826 12827 12828 12829

## SHANK $\phi 3.0$

3 pcs./pack

80,000 min<sup>-1</sup> / 70,000 min<sup>-1</sup> / 30,000 min<sup>-1</sup> / 70,000 min<sup>-1</sup>

#140 / #120 / #100 / #120 / #100

Diamond 12831 12832 12833 12834 12835 12836 12837

18 pcs./pack Assorted Set

| 12841           |       |       |
|-----------------|-------|-------|
| Set (18 pieces) |       |       |
| 12801           | 12813 | 12825 |
| 12803           | 12815 | 12827 |
| 12805           | 12817 | 12828 |
| 12807           | 12819 | 12832 |
| 12809           | 12821 | 12833 |
| 12811           | 12823 | 12836 |



## SHANK $\phi 6.0$

1 pc./pack

80,000 min<sup>-1</sup>

| Length         | L=50  | L=50  | L=55  | L=86  |
|----------------|-------|-------|-------|-------|
| Diamond (#100) | 13011 | 13012 | 13013 | 13014 |
| CBN (#140)     | 13101 | 13102 | 13103 | 13104 |

## SHANK $\phi 6.0$

1 pc./pack

80,000 min<sup>-1</sup> / 75,000 min<sup>-1</sup>

| Length         | L=80  | L=50  | L=87  | L=50  | L=88  | L=55  | L=89  | L=60  | L=90  | L=80  | L=80  |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diamond (#100) | 13035 | 13015 | 13036 | 13016 | 13037 | 13017 | 13038 | 13018 | 13039 | 13040 | 13019 |
| CBN (#140)     | 13125 | 13105 | 13126 | 13106 | 13127 | 13107 | 13128 | 13108 | 13129 | 13130 | 13109 |

# ELECTROPLATED DIAMOND/CBN BURS

## SHANK $\phi 6.0$

1 pc./pack

|                | 50,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 13$                | $\phi 13$ | $\phi 14$                | $\phi 15$ |
| Length         | L=60                     | L=80      | L=60                     | L=80      |
| Diamond (#100) | 13020                    | 13041     | 13042                    | 13021     |
| Diamond (#100) | 13020                    | 13041     | 13042                    | 13021     |
| CBN (#140)     | 13110                    | 13131     | 13132                    | 13111     |
| CBN (#140)     | 13110                    | 13131     | 13132                    | 13111     |

1 pc./pack

|                | 80,000 min <sup>-1</sup> |          | 60,000 min <sup>-1</sup> |           | 45,000 min <sup>-1</sup> |
|----------------|--------------------------|----------|--------------------------|-----------|--------------------------|
|                | $\phi 4$                 | $\phi 6$ | $\phi 8$                 | $\phi 10$ | $\phi 13$                |
| Diamond (#120) | 13201                    | 13202    | 13203                    | 13204     | 13205                    |
| Diamond (#120) | 13201                    | 13202    | 13203                    | 13204     | 13205                    |
| CBN (#140)     | 13206                    | 13207    | 13208                    | 13209     | 13210                    |
| CBN (#140)     | 13206                    | 13207    | 13208                    | 13209     | 13210                    |

## SHANK $\phi 6.0$

1 pc./pack

|                | 50,000 min <sup>-1</sup> |           | 45,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 6$                 | $\phi 10$ | $\phi 13$                | $\phi 13$ |
| Diamond (#140) | 13241                    | 13242     | 13243                    | 13243     |
| Diamond (#140) | 13241                    | 13242     | 13243                    | 13243     |
| CBN (#120)     | 13246                    | 13247     | 13248                    | 13248     |
| CBN (#120)     | 13246                    | 13247     | 13248                    | 13248     |

1 pc./pack

|                | 50,000 min <sup>-1</sup> |           | 45,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 6$                 | $\phi 10$ | $\phi 13$                | $\phi 13$ |
| Diamond (#140) | 13261                    | 13262     | 13263                    | 13263     |
| Diamond (#140) | 13261                    | 13262     | 13263                    | 13263     |
| CBN (#120)     | 13266                    | 13267     | 13268                    | 13268     |
| CBN (#120)     | 13266                    | 13267     | 13268                    | 13268     |

## SHANK $\phi 6.0$

1 pc./pack

|                | 35,000 min <sup>-1</sup> |           | 45,000 min <sup>-1</sup> |           | 30,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 13$                | $\phi 13$ | $\phi 6$                 | $\phi 10$ | $\phi 10$                | $\phi 10$ |
| Diamond (#120) | 13301                    | 13301     | 13311                    | 13312     | 13312                    | 13312     |
| Diamond (#120) | 13301                    | 13301     | 13311                    | 13312     | 13312                    | 13312     |
| CBN (#120)     | 13302                    | 13302     | 13311                    | 13312     | 13312                    | 13312     |
| CBN (#120)     | 13302                    | 13302     | 13311                    | 13312     | 13312                    | 13312     |

1 pc./pack

|                | 50,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 10$                | $\phi 15$ | $\phi 15$                | $\phi 16$ |
| Diamond (#120) | 13321                    | 13322     | 13332                    | 13332     |
| Diamond (#120) | 13321                    | 13322     | 13332                    | 13332     |
| CBN (#120)     | 13321                    | 13322     | 13332                    | 13332     |
| CBN (#120)     | 13321                    | 13322     | 13332                    | 13332     |

## SHANK $\phi 6.0$

1 pc./pack

|                | 50,000 min <sup>-1</sup> |           | 45,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           | 30,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 10$                | $\phi 13$ | $\phi 16$                | $\phi 20$ | $\phi 10$                | $\phi 13$ | $\phi 16$                | $\phi 20$ |
| Diamond (#120) | 13340                    | 13341     | 13342                    | 13343     | 13344                    | 13345     | 13346                    | 13346     |
| Diamond (#120) | 13340                    | 13341     | 13342                    | 13343     | 13344                    | 13345     | 13346                    | 13346     |
| CBN (#120)     | 13344                    | 13345     | 13346                    | 13346     | 13344                    | 13345     | 13346                    | 13346     |
| CBN (#120)     | 13344                    | 13345     | 13346                    | 13346     | 13344                    | 13345     | 13346                    | 13346     |

1 pc./pack

|                | 45,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           | 45,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 13$                | $\phi 16$ | $\phi 13$                | $\phi 16$ | $\phi 13$                | $\phi 16$ | $\phi 13$                | $\phi 16$ |
| Diamond (#120) | 13351                    | 13352     | 13353                    | 13354     | 13355                    | 13356     | 13357                    | 13358     |
| Diamond (#120) | 13351                    | 13352     | 13353                    | 13354     | 13355                    | 13356     | 13357                    | 13358     |
| CBN (#120)     | 13355                    | 13356     | 13357                    | 13358     | 13355                    | 13356     | 13357                    | 13358     |
| CBN (#120)     | 13355                    | 13356     | 13357                    | 13358     | 13355                    | 13356     | 13357                    | 13358     |

## SHANK $\phi 6.0$

1 pc./pack

|                | 45,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 13$                | $\phi 16$ | $\phi 13$                | $\phi 16$ |
| Diamond (#120) | 13371                    | 13372     | 13375                    | 13376     |
| Diamond (#120) | 13371                    | 13372     | 13375                    | 13376     |
| CBN (#120)     | 13375                    | 13376     | 13375                    | 13376     |
| CBN (#120)     | 13375                    | 13376     | 13375                    | 13376     |

1 pc./pack

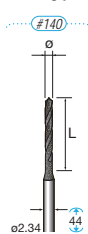
|                | 45,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 13$                | $\phi 16$ | $\phi 13$                | $\phi 16$ |
| Diamond (#120) | 13381                    | 13382     | 13385                    | 13386     |
| Diamond (#120) | 13381                    | 13382     | 13385                    | 13386     |
| CBN (#120)     | 13385                    | 13386     | 13385                    | 13386     |
| CBN (#120)     | 13385                    | 13386     | 13385                    | 13386     |

1 pc./pack

|                | 45,000 min <sup>-1</sup> |           | 35,000 min <sup>-1</sup> |           |
|----------------|--------------------------|-----------|--------------------------|-----------|
|                | $\phi 13$                | $\phi 16$ | $\phi 13$                | $\phi 16$ |
| Diamond (#120) | 13391                    | 13392     | 13395                    | 13396     |
| Diamond (#120) | 13391                    | 13392     | 13395                    | 13396     |
| CBN (#120)     | 13395                    | 13396     | 13395                    | 13396     |
| CBN (#120)     | 13395                    | 13396     | 13395                    | 13396     |

## SHANK $\phi 2.34$

1 pc./pack Twist type: 15,000min<sup>-1</sup>



| $\phi$ mm | Lmm |       |
|-----------|-----|-------|
| 0.8       | 8   | 13851 |
| 0.9       | 8   | 13852 |
| 1.0       | 8   | 13853 |
| 1.1       | 8   | 13854 |
| 1.2       | 10  | 13855 |
| 1.3       | 10  | 13856 |
| 1.4       | 10  | 13857 |
| 1.5       | 10  | 13858 |

# ELECTROPLATED DIAMOND/CBN BURS

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

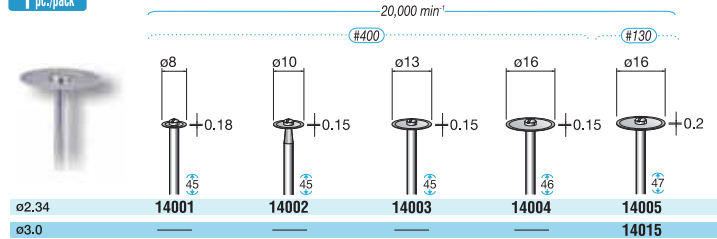
Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools



2.34 / 3.0 mm shank diameters.  
Diamond grinding discs, ideal for ceramics, FRP, glass, ferrites, various stones, and super hard alloys.

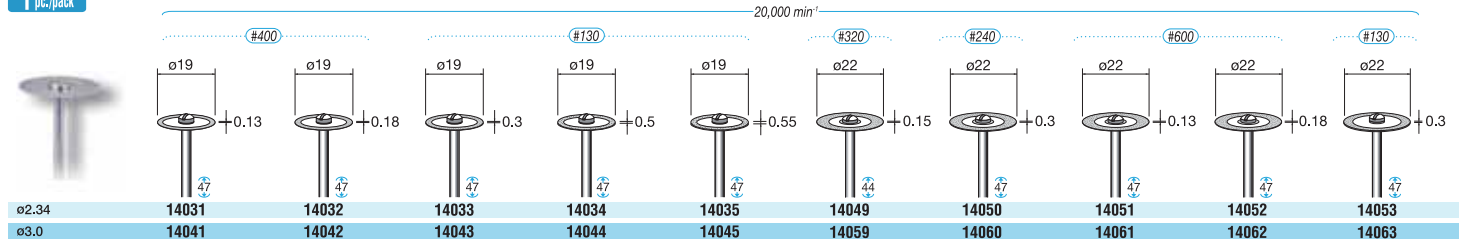
**SHANK**  $\phi 2.34, \phi 3.0$

1 pc./pack



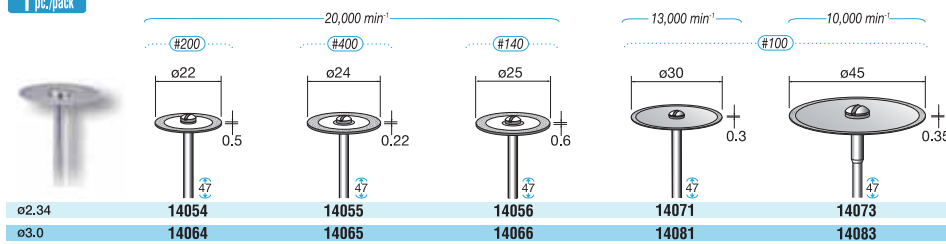
**SHANK**  $\phi 2.34, \phi 3.0$

1 pc./pack



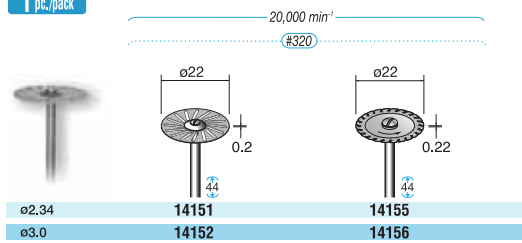
**SHANK**  $\phi 2.34, \phi 3.0$

1 pc./pack



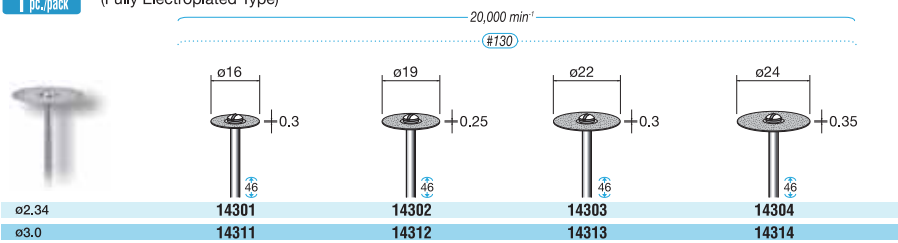
**SHANK**  $\phi 2.34, \phi 3.0$

1 pc./pack



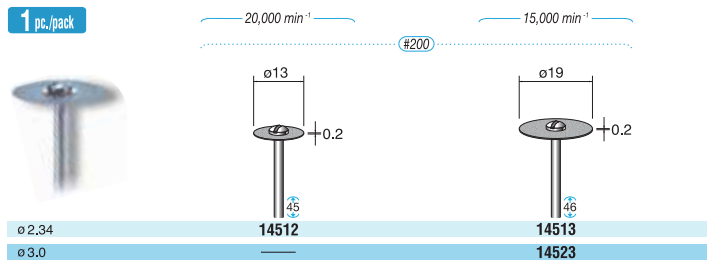
(Fully Electroplated Type)

1 pc./pack

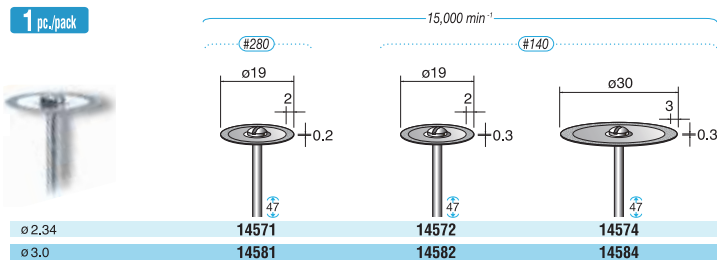


**SHANK**  $\phi 2.34, \phi 3.0$

1 pc./pack

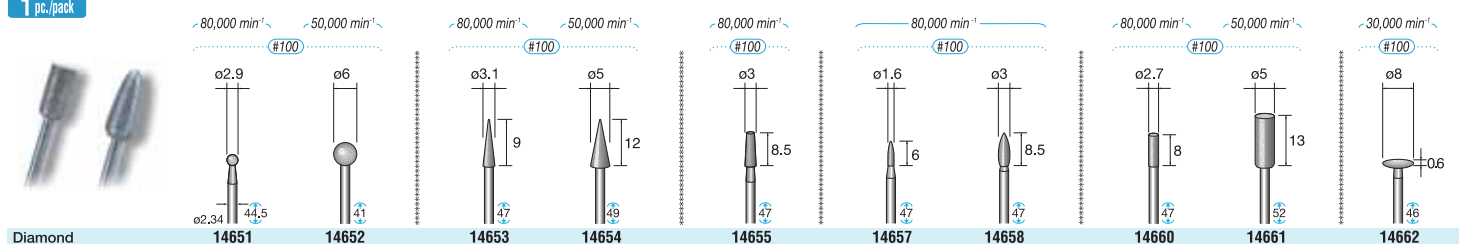


1 pc./pack



**SHANK**  $\phi 2.34$

1 pc./pack



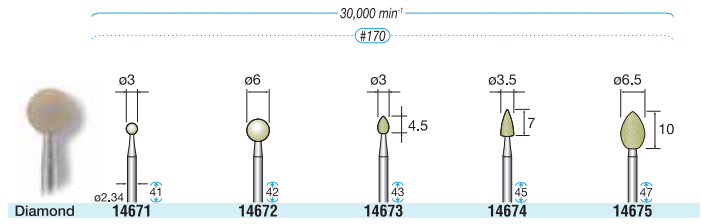
**VITRIFIED / RESIN BONDED DIAMOND / CBN AND DIAMOND IMPREGNATED CERAMIC BARS**



2.34 / 3.0 mm shank diameters. Diamond impregnated ceramics have the same basic cutting properties of standard abrasives but are very durable.

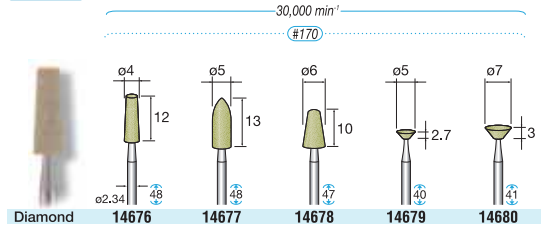
**SHANK Ø2.34 Diamond Impregnated Ceramics**

1 pc./pack



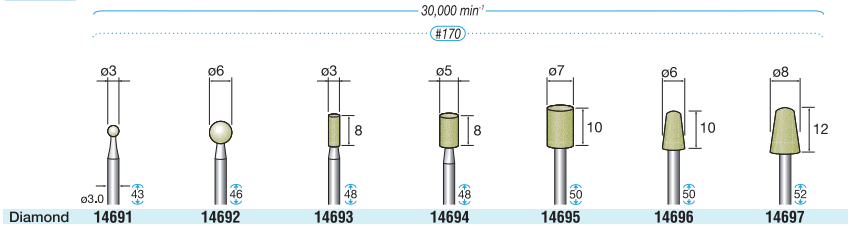
**SHANK Ø2.34 Diamond Impregnated Ceramics**

1 pc./pack



**SHANK Ø3.0 Diamond Impregnated Ceramics**

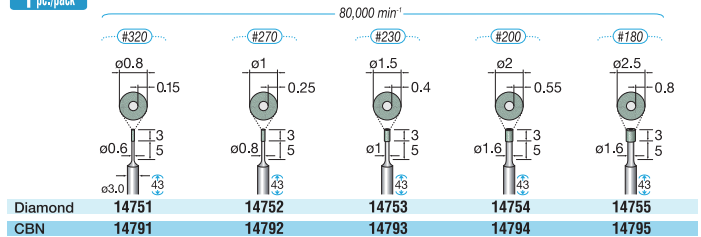
1 pc./pack



Vitrified, Diamond & CBN grindstones. Highly durable bonding and high abrasive concentration make these tools ideal for mass production applications.

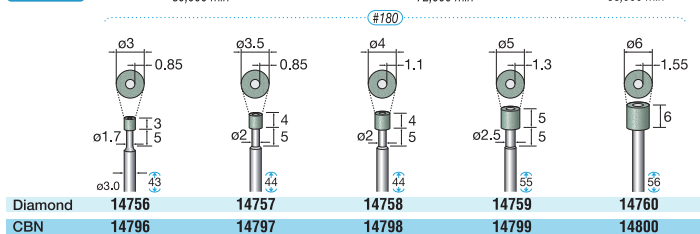
**SHANK Ø3.0 Vitrified Bond**

1 pc./pack



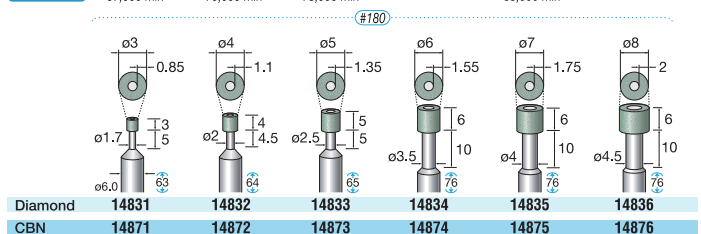
**SHANK Ø3.0 Vitrified Bond**

1 pc./pack



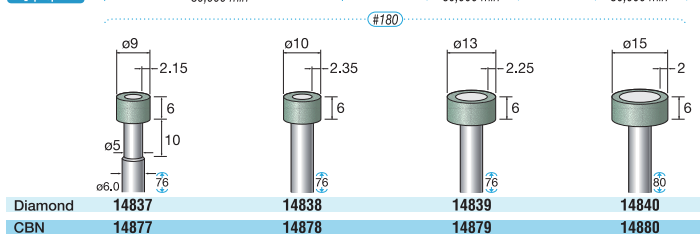
**SHANK Ø6.0 Vitrified Bond**

1 pc./pack



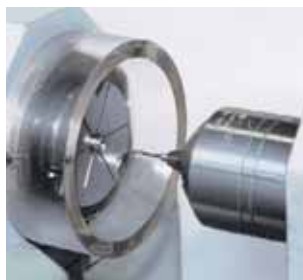
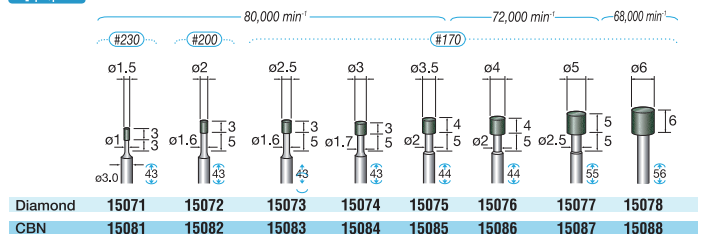
**SHANK Ø6.0 Vitrified Bond**

1 pc./pack



**SHANK Ø3.0 Resin Bond**

1 pc./pack



Resin bonded, Diamond & CBN grindstones. Good for general grinding, these grindstones will exhibit better performance than standard abrasives.



**VITRIFIED / RESIN BONDED DIAMOND / CBN AND DIAMOND IMPREGNATED CERAMIC BARS**

**SHANK  $\phi 6.0$**

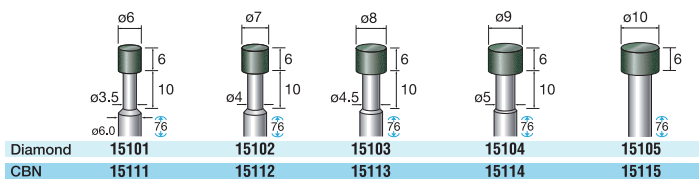
**Resin Bond**

1 pc./pack

85,000 min<sup>-1</sup>

80,000 min<sup>-1</sup>

#170



**SHANK  $\phi 3.0$**

12 pcs./pack Assorted Set



15305

Set (12 pieces)  
(Each code No. one piece-pack)

|       |       |
|-------|-------|
| 12317 | 12403 |
| 12320 | 12405 |
| 12336 | 12412 |
| 12341 | 12415 |
| 12355 | 12451 |
| 12401 | 12492 |



**SHANK  $\phi 3.0$**

10 pcs./pack Assorted Set



15311

Set (10 pieces)  
(Each code No. one piece-pack)

| Ømm | CAT.NO. | Ømm | CAT.NO. |
|-----|---------|-----|---------|
| 0.8 | 12009   | 3   | 12058   |
| 1   | 12051   | 3.5 | 12060   |
| 1.5 | 12053   | 4   | 12061   |
| 2   | 12055   | 5   | 12063   |
| 2.5 | 12057   | 6   | 12065   |

15312

Set (10 pieces)  
(Each code No. one piece-pack)

| Ømm | CAT.NO. | Ømm | CAT.NO. |
|-----|---------|-----|---------|
| 0.8 | 12019   | 3   | 12158   |
| 1   | 12151   | 3.5 | 12160   |
| 1.5 | 12153   | 4   | 12161   |
| 2   | 12155   | 5   | 12163   |
| 2.5 | 12157   | 6   | 12165   |

**SHANK  $\phi 3.0$**

8 pcs./pack Assorted Set



15321

Set (8 pieces)  
(Each code No. one piece-pack)

| Ømm | CAT.NO. | Ømm | CAT.NO. |
|-----|---------|-----|---------|
| 1   | 14752   | 3   | 14756   |
| 1.5 | 14753   | 4   | 14758   |
| 2   | 14754   | 5   | 14759   |
| 2.5 | 14755   | 6   | 14760   |

15322

Set (8 pieces)  
(Each code No. one piece-pack)

| Ømm | CAT.NO. | Ømm | CAT.NO. |
|-----|---------|-----|---------|
| 1   | 14792   | 3   | 14796   |
| 1.5 | 14793   | 4   | 14798   |
| 2   | 14794   | 5   | 14799   |
| 2.5 | 14795   | 6   | 14800   |

**SHANK  $\phi 3.0$**

8 pcs./pack Assorted Set



15331

Set (8 pieces)  
(Each code No. one piece-pack)

| Ømm | CAT.NO. | Ømm | CAT.NO. |
|-----|---------|-----|---------|
| 1.5 | 15071   | 3.5 | 15075   |
| 2   | 15072   | 4   | 15076   |
| 2.5 | 15073   | 5   | 15077   |
| 3   | 15074   | 6   | 15078   |









15332

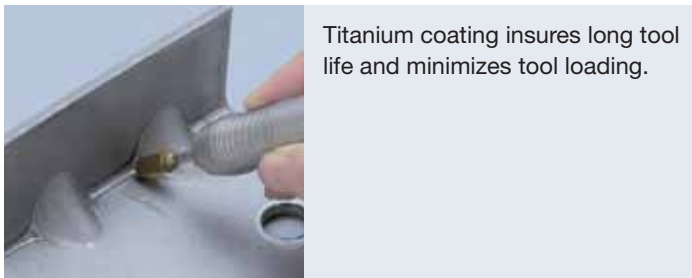
Set (8 pieces)  
(Each code No. one piece-pack)

| Ømm | CAT.NO. | Ømm | CAT.NO. |
|-----|---------|-----|---------|
| 1.5 | 15081   | 3.5 | 15085   |
| 2   | 15082   | 4   | 15086   |
| 2.5 | 15083   | 5   | 15087   |
| 3   | 15084   | 6   | 15088   |

# CARBIDE CUTTERS

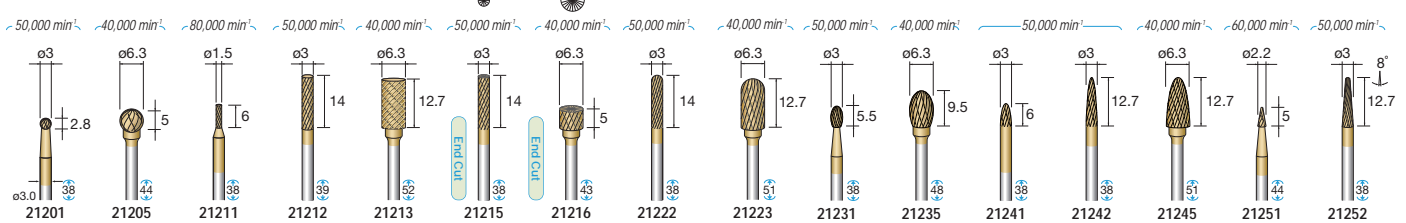
## Tool / Cut types and features (\*' Shows available shank sizes for each cut type)

|   |  |   |   |
|---|--|---|---|
| <b>Single Cut (1)</b><br><br>Single cut produces superior surface finishes.<br>* $\phi 1.6$ , $\phi 2.34$ , $\phi 3.0$ , $\phi 6.0$  | <b>Single Cut Coarse (2)</b><br><br>Single Cut Coarse has similar cutting characteristics to Single cut, but is better for gummy materials due to deep helix design. Ideal for rubbers, resins, and plasters.<br>* $\phi 2.34$ , $\phi 3.0$ | <b>Chip Breaker (3)</b><br><br>Chip Breaker is the single cut with a chip breaker. The chip breaker clears chips easily making aggressive cutting very efficient. Surface finish is rougher than single cut.<br>* $\phi 1.6$ , $\phi 2.34$ | <b>Alumina Cut (4)</b><br><br>Alumina Cut has very sharp edge with a deep helix. The deep helix design prevents tool loading. Ideal for aluminum, magnesium alloys, plastics and hard rubbers.<br>* $\phi 6.0$ |
| <b>Double Cut (5)</b><br><br>Smooth Cut with small tooth design minimizes chatter. This tool also helps enhance safety as it produces very small chips.<br>* $\phi 2.34$ , $\phi 3.0$ , $\phi 6.0$ | <b>Double Cut Coarse (6)</b><br><br>Deep helix design prevents tool loading. Ideal for grinding hard rubbers, resins and plaster.<br>* $\phi 2.34$  | <b>Diamond Cut Fine (7)</b><br><br>Diamond Cut Fine (7) has similar characteristics as Double Cut (5). Specially designed for very hard materials. Produces fine surface finish.<br>* $\phi 2.34$ , $\phi 3.0$                             | <b>Diamond Cut Coarse (8)</b><br><br>Specially designed for very hard materials. Produces fine surface finish.<br>* $\phi 3.0$ , $\phi 6.0$  |



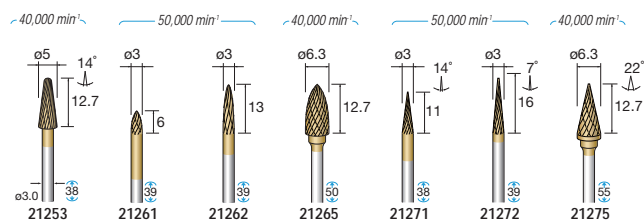
### SHANK $\phi 3.0$

#### 1 pc./pack Double Cut

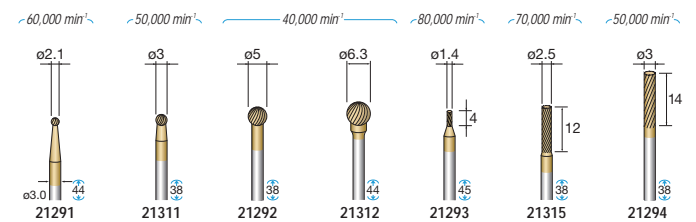


### SHANK $\phi 3.0$

#### 1 pc./pack Double Cut

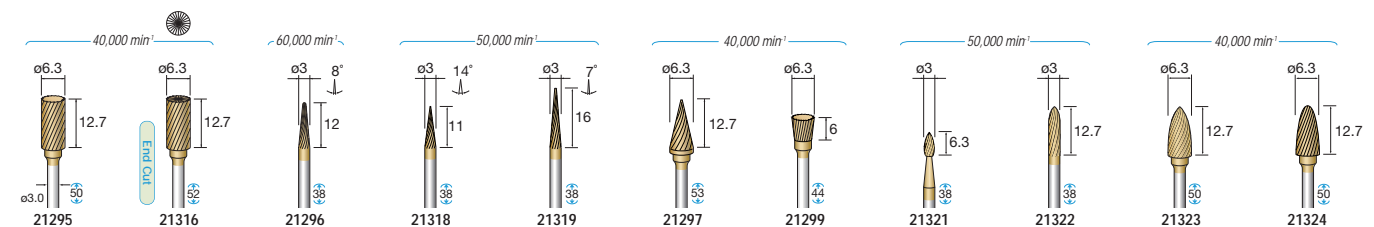


#### 1 pc./pack Single Cut



### SHANK $\phi 3.0$

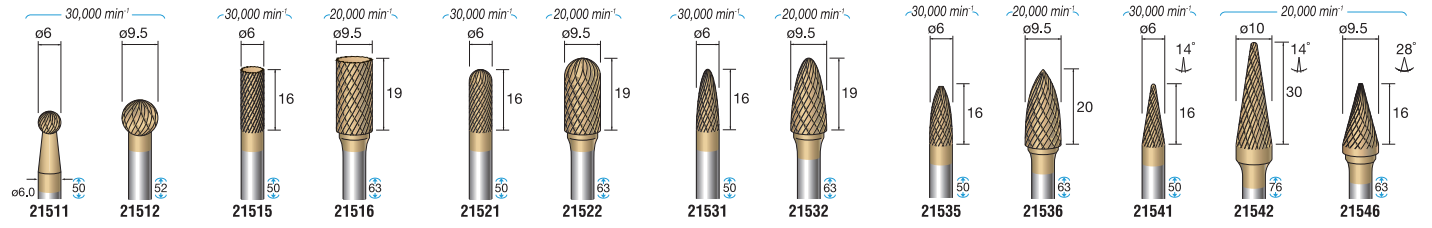
#### 1 pc./pack Single Cut



# CARBIDE CUTTERS

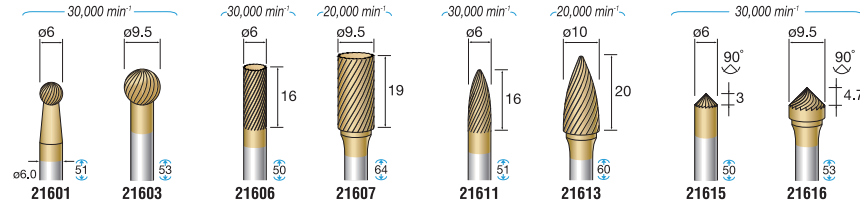
**SHANK  $\phi 6.0$**

1 pc./pack **Double Cut**



**SHANK  $\phi 6.0$**

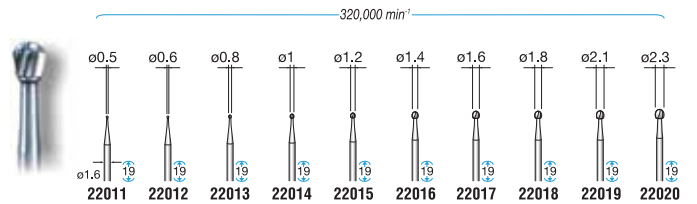
1 pc./pack **Single Cut**



1.6 mm shank diameter series.  
Short type for high speed rotation.  
Best for grinding very small parts.

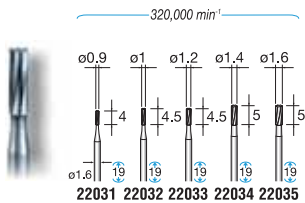
**SHANK  $\phi 1.6$**

5 pcs./pack **Single Cut** Round Type

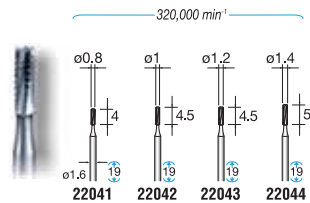


**SHANK  $\phi 1.6$**

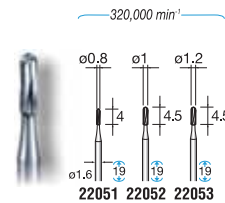
5 pcs./pack **Single Cut** Straight Type



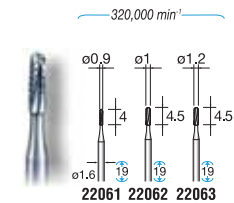
5 pcs./pack **Chip Breaker** Straight Type



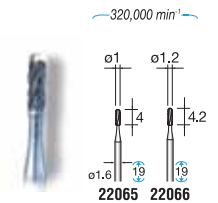
5 pcs./pack **Single Cut** Ball Tip Straight Type



5 pcs./pack **Chip Breaker** Ball Tip Straight Type

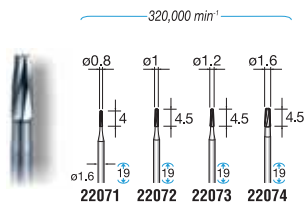


5 pcs./pack **Double Cut** Ball Tip Straight Type

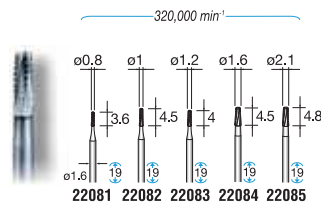


**SHANK  $\phi 1.6$**

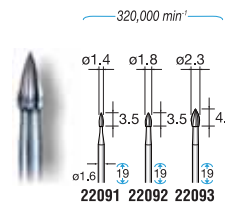
5 pcs./pack **Single Cut** Tapered Type



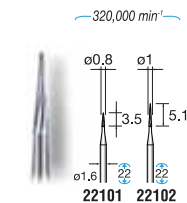
5 pcs./pack **Chip Breaker** Tapered Type



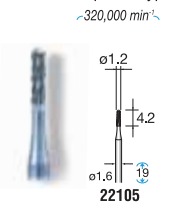
5 pcs./pack **Single Cut**



5 pcs./pack **Single Cut**

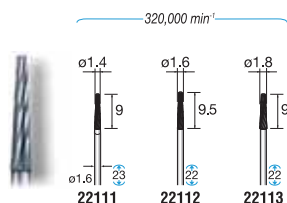


5 pcs./pack **Double Cut** Ball Point Tapered Type

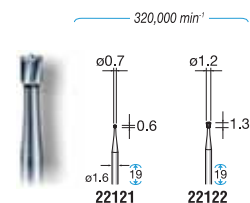


**SHANK  $\phi 1.6$**

5 pcs./pack **Single Cut**



5 pcs./pack **Single Cut**



Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

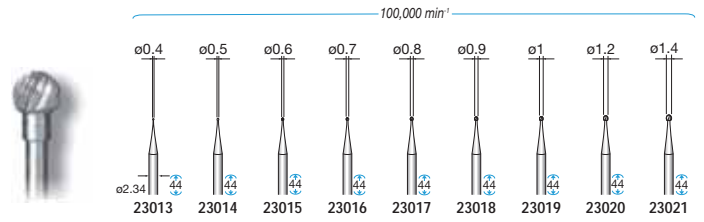
# CARBIDE CUTTERS



2.34 mm shank diameter series.  
Ideal for engraving, and high  
precision burr removal.

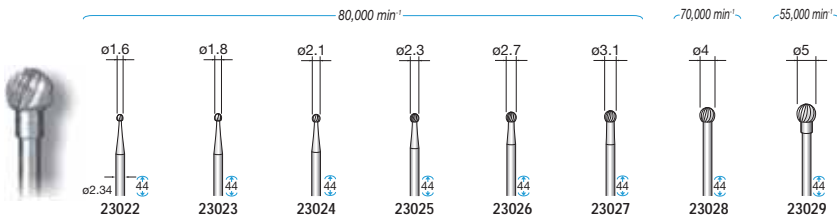
**SHANK  $\phi 2.34$**

1 pc./pack **Single Cut**

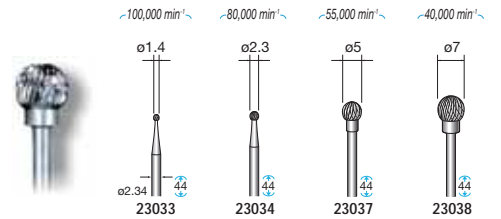


**SHANK  $\phi 2.34$**

1 pc./pack **Single Cut**

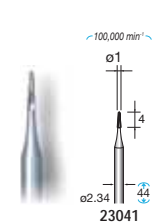


1 pc./pack **Double Cut**

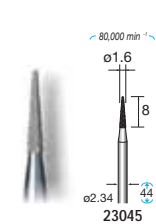


**SHANK  $\phi 2.34$**

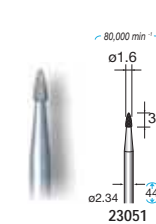
1 pc./pack **Single Cut**



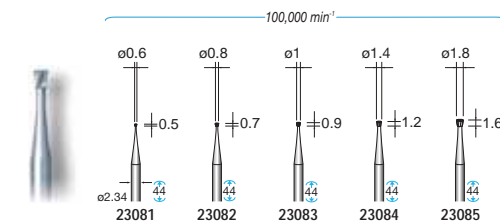
1 pc./pack **Diamond Cut**



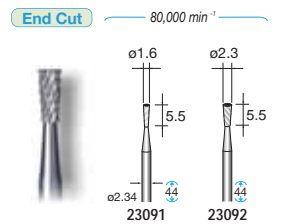
1 pc./pack **Diamond Cut**



1 pc./pack **Single Cut End Cut**

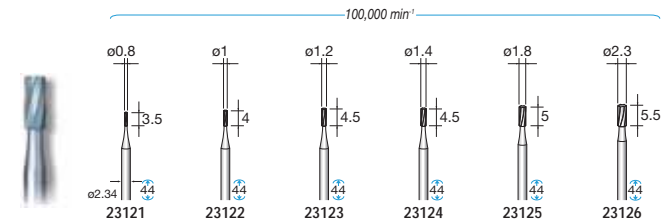


1 pc./pack **Diamond Cut End Cut**

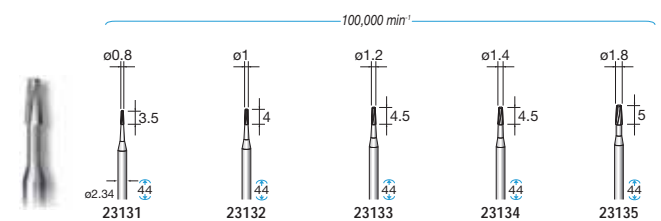


**SHANK  $\phi 2.34$**

1 pc./pack **Single Cut Straight Type**

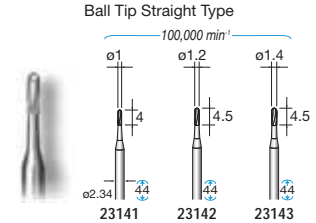


1 pc./pack **Single Cut Tapered Type**

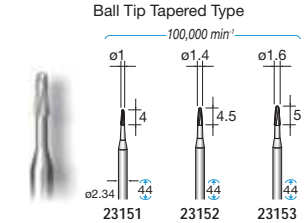


**SHANK  $\phi 2.34$**

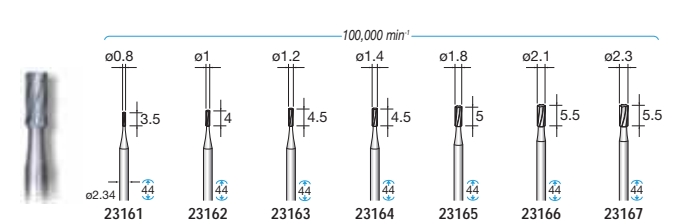
1 pc./pack **Single Cut Ball Tip Straight Type**



1 pc./pack **Single Cut Ball Tip Tapered Type**

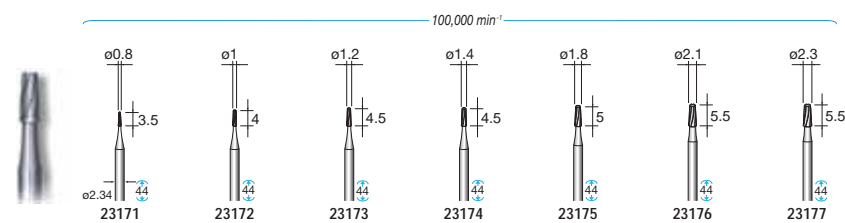


1 pc./pack **Chip Breaker Straight Type**

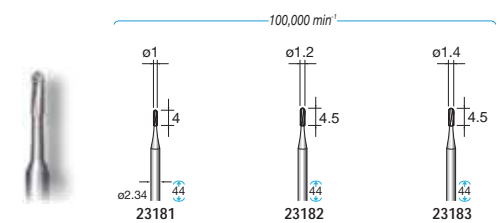


**SHANK  $\phi 2.34$**

1 pc./pack **Chip Cut Tapered Type**



1 pc./pack **Chip Cut Ball Tip Straight Type**





# CARBIDE CUTTERS

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

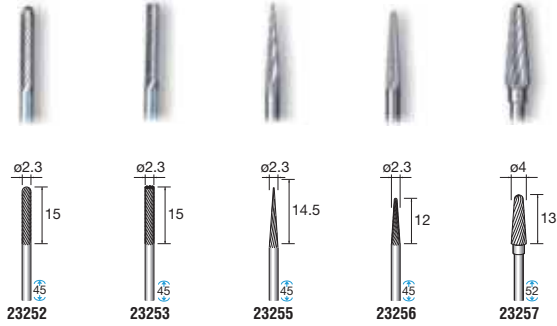
Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

**SHANK  $\phi 2.34$**

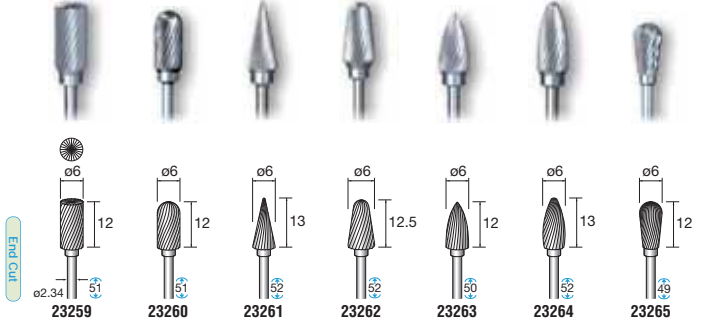
1 pc./pack **Single Cut**

80,000 min<sup>-1</sup>



1 pc./pack **Single Cut**

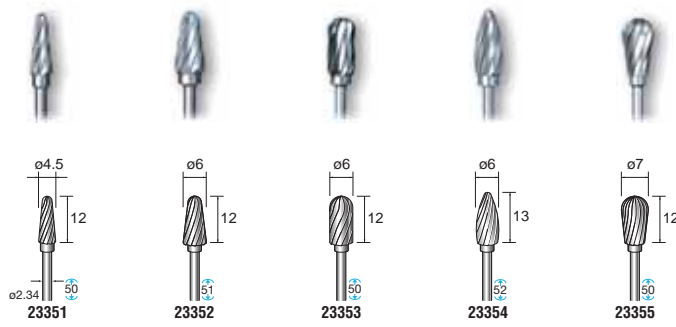
40,000 min<sup>-1</sup>



**SHANK  $\phi 2.34$**

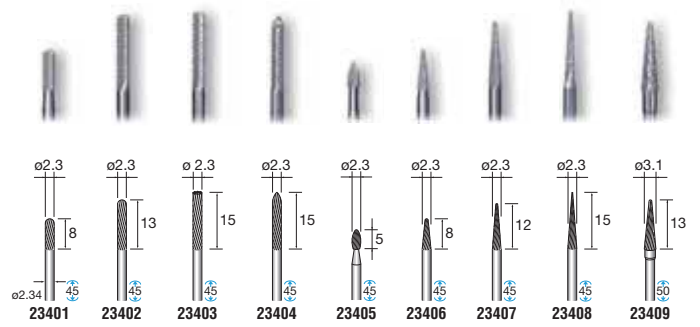
1 pc./pack **Single Cut**

40,000 min<sup>-1</sup>



1 pc./pack **Double Cut**

80,000 min<sup>-1</sup>

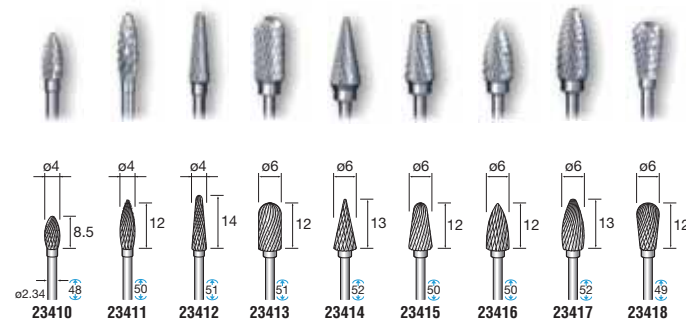


**SHANK  $\phi 2.34$**

1 pc./pack **Double Cut**

80,000 min<sup>-1</sup>

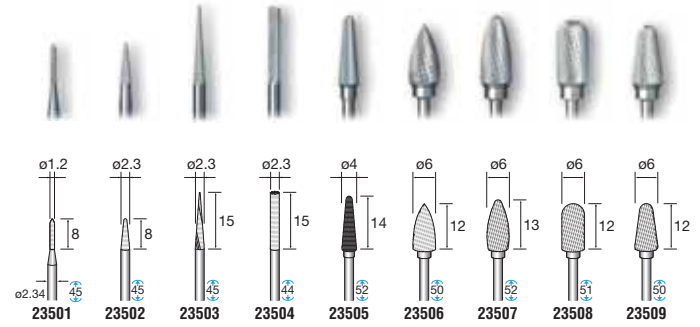
40,000 min<sup>-1</sup>



1 pc./pack **Diamond Cut <Fine>**

80,000 min<sup>-1</sup>

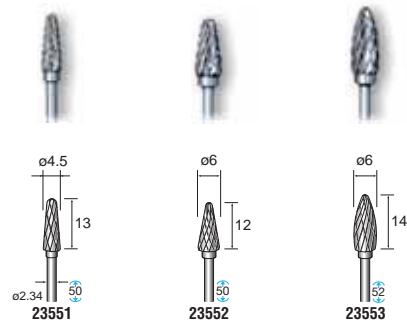
40,000 min<sup>-1</sup>



**SHANK  $\phi 2.34$**

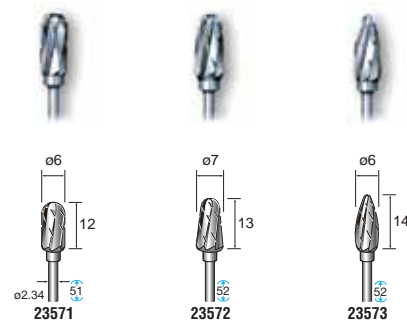
1 pc./pack **Double Cut <Rough>**

40,000 min<sup>-1</sup>



1 pc./pack **Double Cut <Super Rough>**

40,000 min<sup>-1</sup>



# CARBIDE CUTTERS

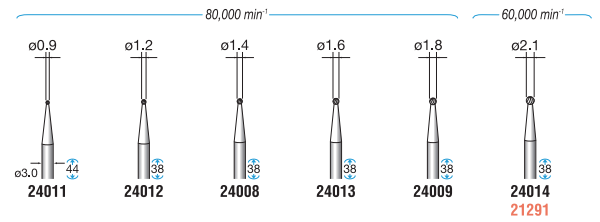
• Orange code numbers indicate Titanium-Coated Type.



3.0 mm shank diameter series. High quality carbide cutters offer superior durability and produce fine surface finishes.

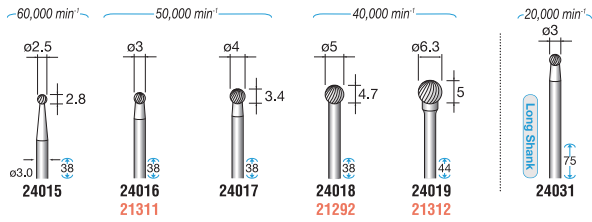
## SHANK $\phi 3.0$

1 pc./pack **Single Cut**

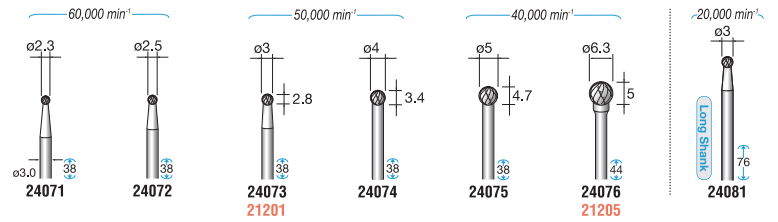


## SHANK $\phi 3.0$

1 pc./pack **Single Cut**

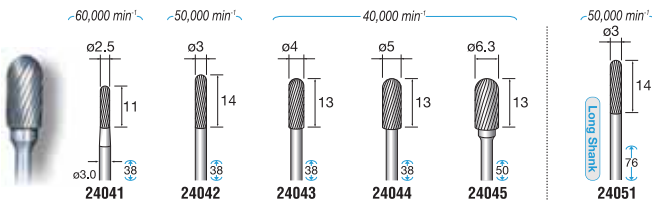


1 pc./pack **Double Cut**

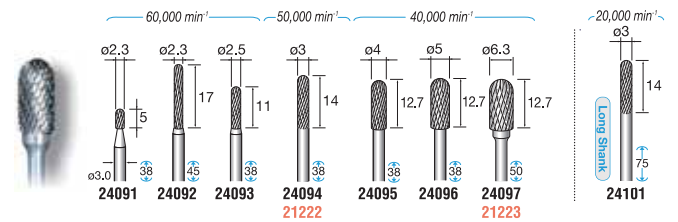


## SHANK $\phi 3.0$

1 pc./pack **Single Cut**

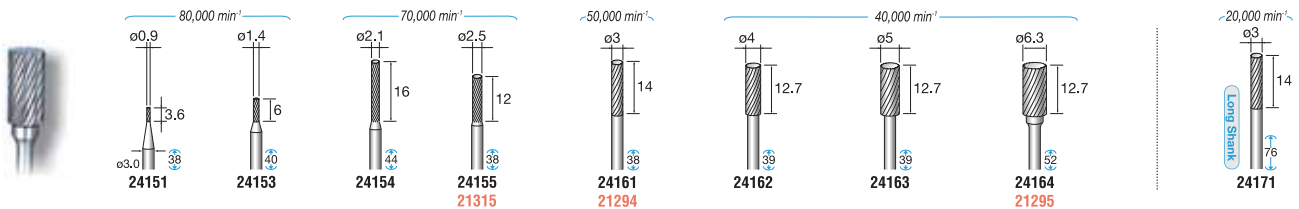


1 pc./pack **Double Cut**



## SHANK $\phi 3.0$

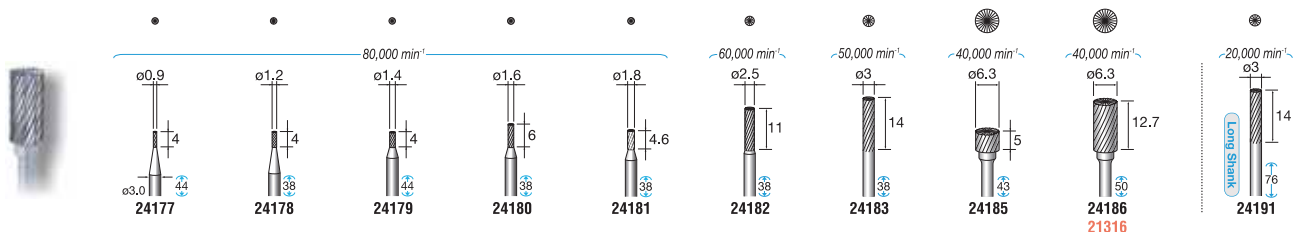
1 pc./pack **Single Cut**



## SHANK $\phi 3.0$

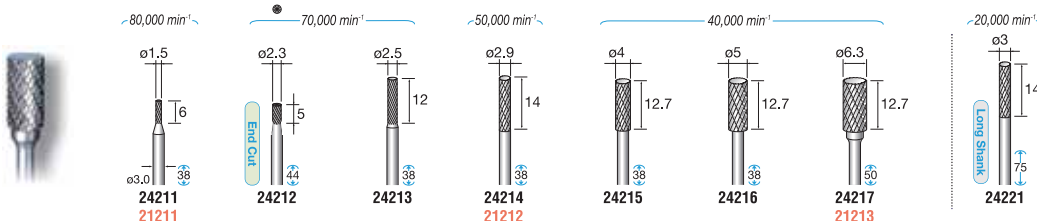
1 pc./pack **Single Cut**

**End Cut**

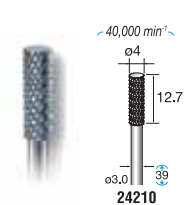


## SHANK $\phi 3.0$

1 pc./pack **Double Cut**



1 pc./pack **Diamond Cut**



\*Order in standard package quantities.

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

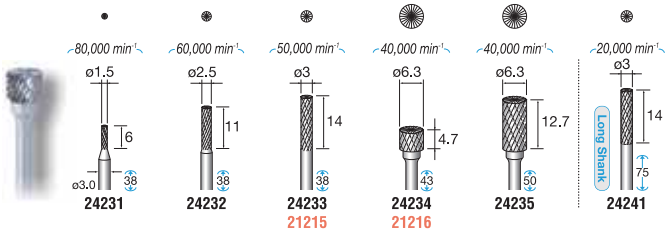


# CARBIDE CUTTERS

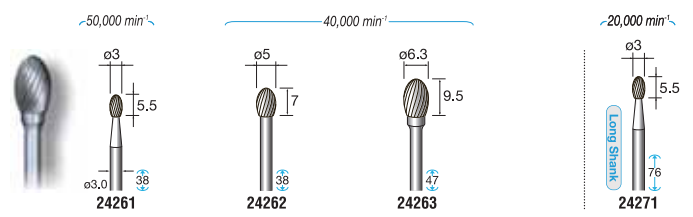
Orange code numbers indicate Titanium-Coated Type.

**SHANK  $\phi 3.0$**

1 pc./pack **Double Cut** End Cut

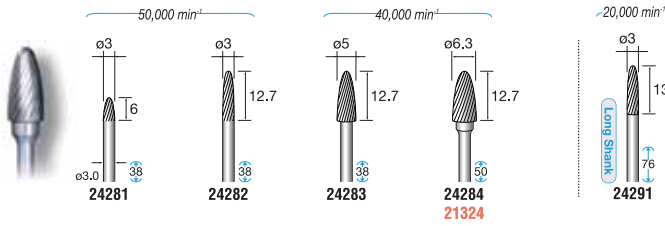


1 pc./pack **Single Cut**

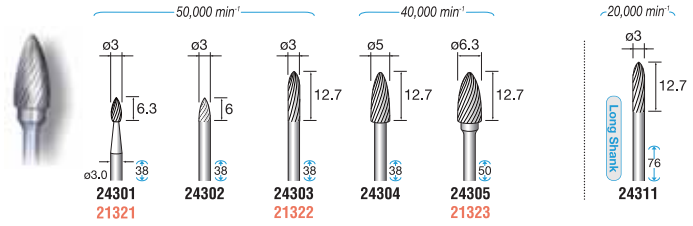


**SHANK  $\phi 3.0$**

1 pc./pack **Single Cut**

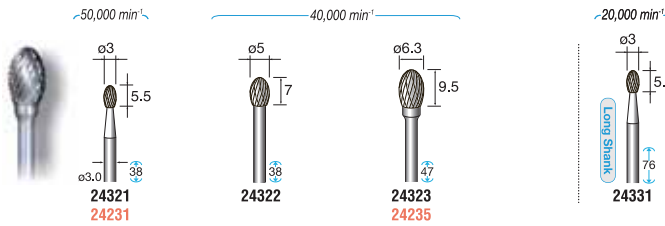


1 pc./pack **Single Cut**

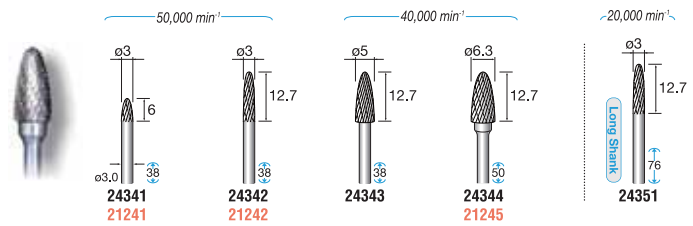


**SHANK  $\phi 3.0$**

1 pc./pack **Double Cut**

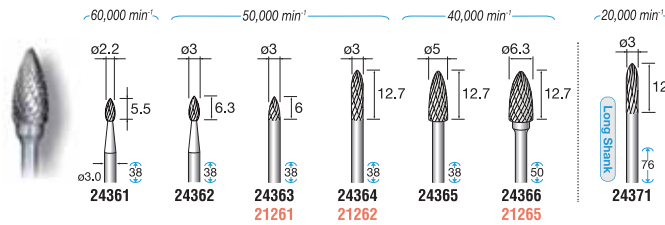


1 pc./pack **Double Cut**

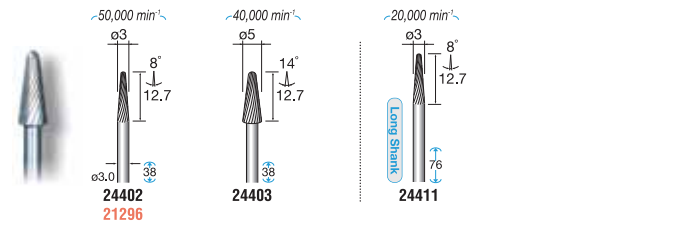


**SHANK  $\phi 3.0$**

1 pc./pack **Double Cut**

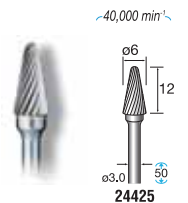


1 pc./pack **Single Cut**

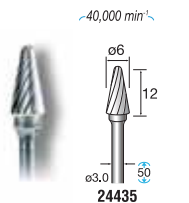


**SHANK  $\phi 3.0$**

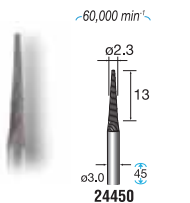
1 pc./pack **Single Cut**



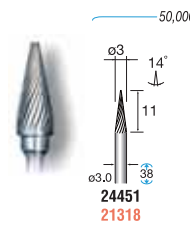
1 pc./pack **Single Cut**



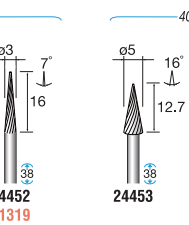
1 pc./pack **Single Cut**



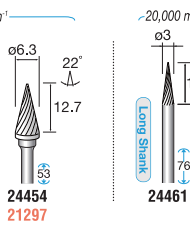
1 pc./pack **Single Cut**



1 pc./pack **Single Cut**



1 pc./pack **Single Cut**

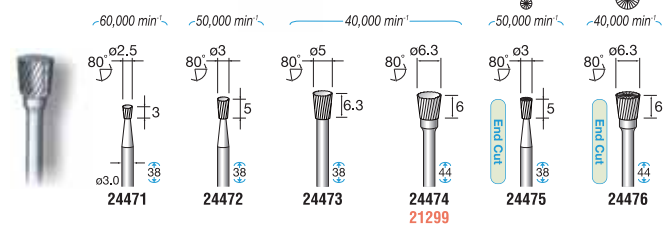


1 pc./pack **Single Cut**



**SHANK  $\phi 3.0$**

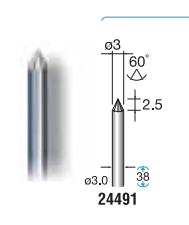
1 pc./pack **Single Cut**



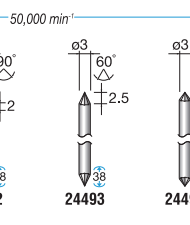
1 pc./pack **Single Cut**



1 pc./pack **Single Cut**



1 pc./pack **Single Cut**



1 pc./pack **Single Cut**



Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

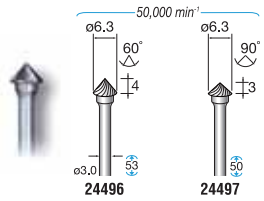
NSK Exclusive Tools

# CARBIDE CUTTERS

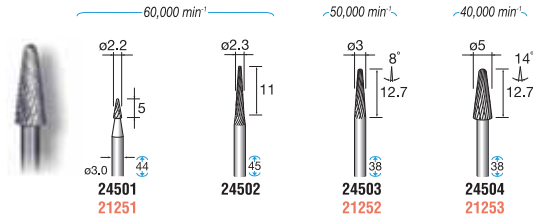
• Orange code numbers indicate Titanium-Coated Type.

## SHANK $\phi 3.0$

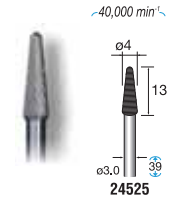
### 1 pc./pack Single Cut



### 1 pc./pack Double Cut

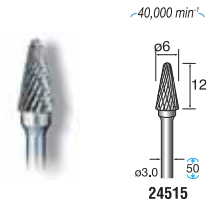


### 1 pc./pack Diamond Cut

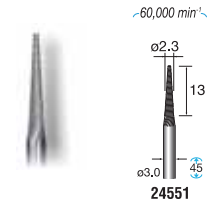


## SHANK $\phi 3.0$

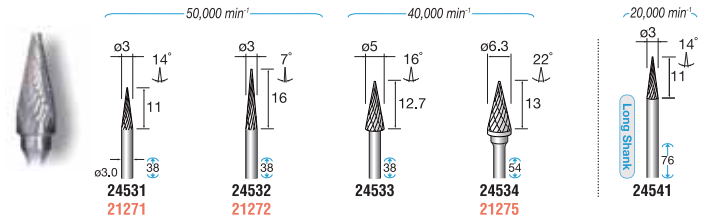
### 1 pc./pack Double Cut



### 1 pc./pack Diamond Cut

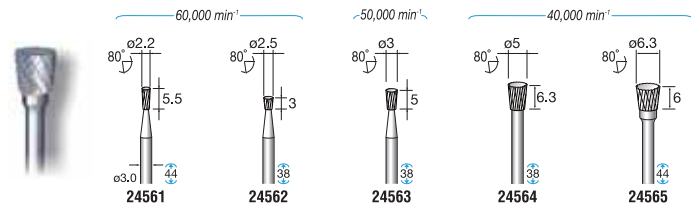


### 1 pc./pack Double Cut



## SHANK $\phi 3.0$

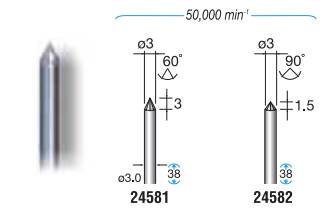
### 1 pc./pack Double Cut



### 1 pc./pack Double Cut

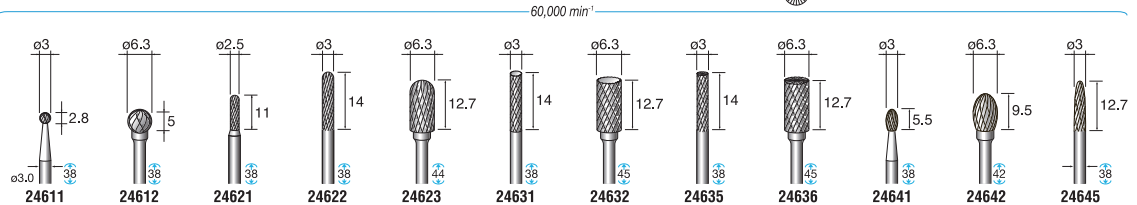


### 1 pc./pack Double Cut



## SHANK $\phi 3.0$

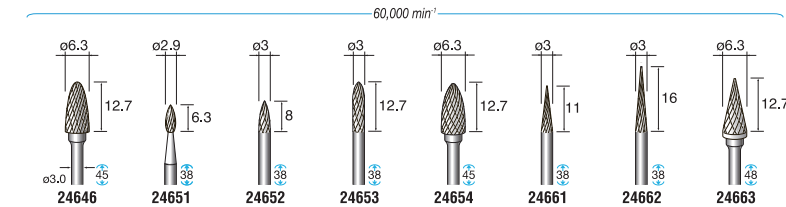
### 1 pc./pack Alloy Cut



### End Cut

## SHANK $\phi 3.0$

### 1 pc./pack Alloy Cut



### 12 pcs./pack Assorted Set

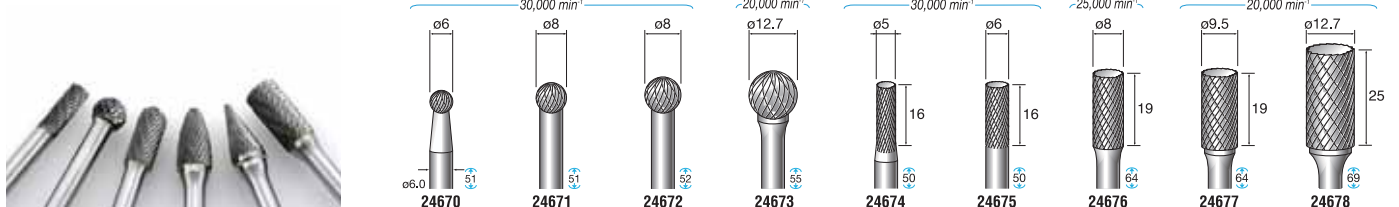


|  |       |
|--|-------|
| <b>24601</b>   |       |
| <b>Set (12 pieces)</b><br>(Each code No. one piece-pack) |       |
| 24611  | 24646 |
| 24612  | 24651 |
| 24622  | 24653 |
| 24623  | 24654 |
| 24631  | 24661 |
| 24632  | 24663 |

\*Wood box will be replaced with the plastic case when the stock of wood box is sold out.

## SHANK $\phi 6.0$

### 1 pc./pack Alloy Cut



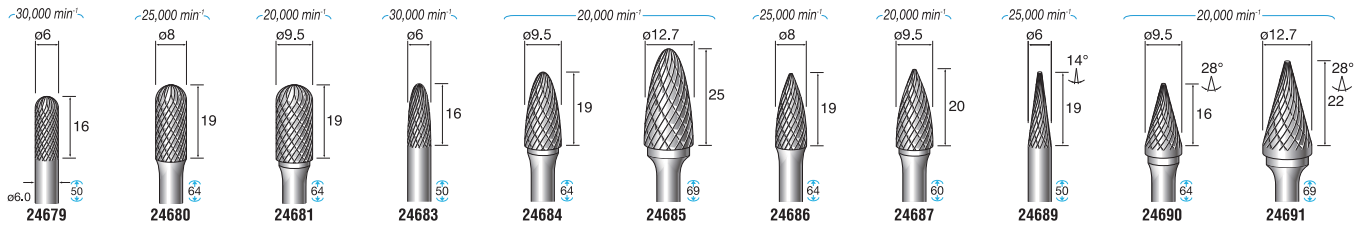


# CARBIDE CUTTERS

Orange code numbers indicate Titanium-Coated Type.

## SHANK $\phi 6.0$

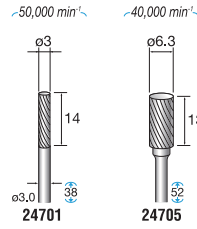
1 pc./pack Alloy Cut



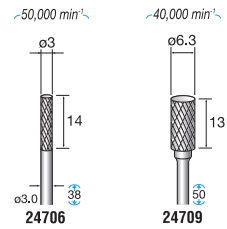
**Left Handed**  
Left handed carbide cutters. For left handed grinders and a wide variety of automated machines.

## SHANK $\phi 3.0$ Left Handed

1 pc./pack Single Cut

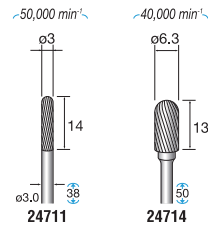


1 pc./pack Double Cut

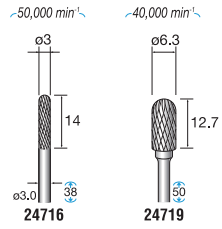


## SHANK $\phi 3.0$ Left Handed

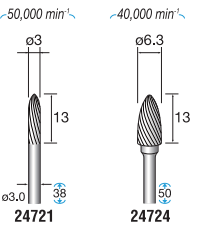
1 pc./pack Single Cut



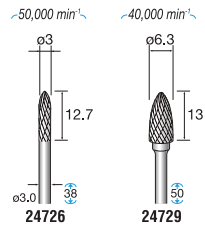
1 pc./pack Double Cut



1 pc./pack Single Cut

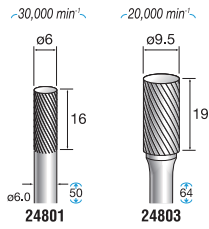


1 pc./pack Double Cut

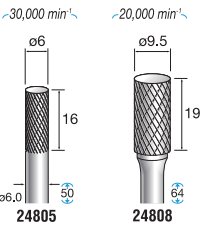


## SHANK $\phi 6.0$ Left Handed

1 pc./pack Single Cut

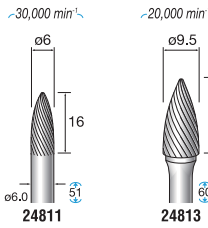


1 pc./pack Double Cut

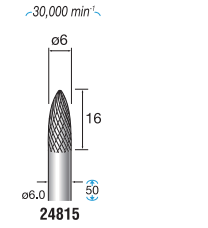


## SHANK $\phi 6.0$ Left Handed

1 pc./pack Single Cut



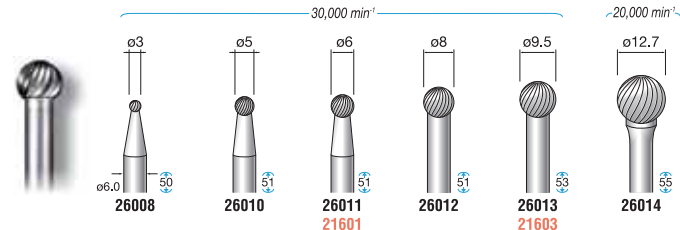
1 pc./pack Double Cut



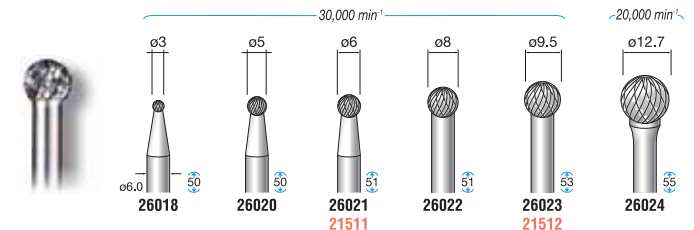
6.0 mm shank diameter series. Ideal for grinding, polishing and general finishing of large work areas.

## SHANK $\phi 6.0$

1 pc./pack Single Cut

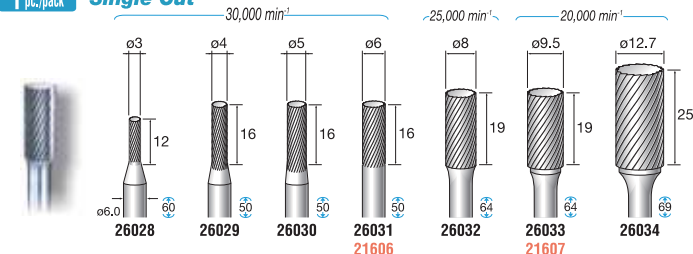


1 pc./pack Double Cut

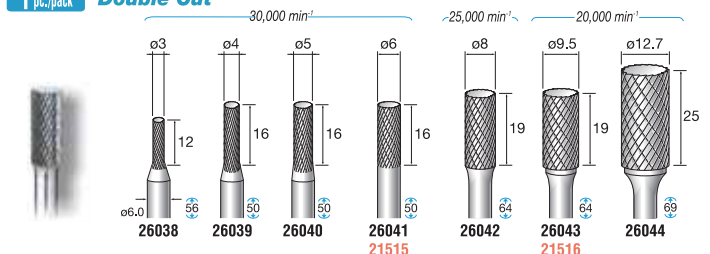


## SHANK $\phi 6.0$

1 pc./pack Single Cut



1 pc./pack Double Cut



Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools



# CARBIDE CUTTERS

• Orange code numbers indicate Titanium-Coated Type.

SHANK  $\phi 6.0$

**1 pc./pack Single Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26048 | 6.0          | 13     | 3          | ~30,000 min <sup>-1</sup> |
| 26049 | 6.0          | 16     | 4          | ~30,000 min <sup>-1</sup> |
| 26050 | 6.0          | 16     | 5          | ~30,000 min <sup>-1</sup> |
| 26051 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26052 | 6.0          | 19     | 8          | ~25,000 min <sup>-1</sup> |
| 26053 | 6.0          | 19     | 9.5        | ~20,000 min <sup>-1</sup> |
| 26054 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

**1 pc./pack Double Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26058 | 6.0          | 13     | 3          | ~30,000 min <sup>-1</sup> |
| 26059 | 6.0          | 16     | 4          | ~30,000 min <sup>-1</sup> |
| 26060 | 6.0          | 16     | 5          | ~30,000 min <sup>-1</sup> |
| 26061 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26062 | 6.0          | 19     | 8          | ~25,000 min <sup>-1</sup> |
| 26063 | 6.0          | 19     | 9.5        | ~20,000 min <sup>-1</sup> |
| 26064 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

SHANK  $\phi 6.0$

**1 pc./pack Single Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26069 | 6.0          | 16     | 4          | ~30,000 min <sup>-1</sup> |
| 26070 | 6.0          | 16     | 5          | ~30,000 min <sup>-1</sup> |
| 26071 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26072 | 6.0          | 19     | 8          | ~25,000 min <sup>-1</sup> |
| 26073 | 6.0          | 19     | 9.5        | ~20,000 min <sup>-1</sup> |
| 26074 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

**1 pc./pack Double Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26079 | 6.0          | 16     | 4          | ~30,000 min <sup>-1</sup> |
| 26080 | 6.0          | 16     | 5          | ~30,000 min <sup>-1</sup> |
| 26081 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26082 | 6.0          | 19     | 8          | ~25,000 min <sup>-1</sup> |
| 26083 | 6.0          | 19     | 9.5        | ~20,000 min <sup>-1</sup> |
| 26084 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

SHANK  $\phi 6.0$

**1 pc./pack Single Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26091 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26092 | 6.0          | 19     | 9.5        | ~20,000 min <sup>-1</sup> |
| 26093 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

**1 pc./pack Double Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26101 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26102 | 6.0          | 19     | 9.5        | ~20,000 min <sup>-1</sup> |
| 26103 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

SHANK  $\phi 6.0$

**1 pc./pack Single Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26111 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26112 | 6.0          | 19     | 8          | ~25,000 min <sup>-1</sup> |
| 26113 | 6.0          | 20     | 10         | ~20,000 min <sup>-1</sup> |
| 26114 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

**1 pc./pack Double Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Speed Range               |
|-------|--------------|--------|------------|---------------------------|
| 26121 | 6.0          | 16     | 6          | ~30,000 min <sup>-1</sup> |
| 26122 | 6.0          | 19     | 8          | ~25,000 min <sup>-1</sup> |
| 26123 | 6.0          | 20     | 9.5        | ~20,000 min <sup>-1</sup> |
| 26124 | 6.0          | 25     | 12.7       | ~20,000 min <sup>-1</sup> |

SHANK  $\phi 6.0$

**1 pc./pack Single Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Angle | Speed Range               |
|-------|--------------|--------|------------|-------|---------------------------|
| 26131 | 6.0          | 13     | 6          | 22°   | ~30,000 min <sup>-1</sup> |
| 26132 | 6.0          | 19     | 6          | 14°   | ~25,000 min <sup>-1</sup> |
| 26133 | 6.0          | 16     | 9.5        | 28°   | ~20,000 min <sup>-1</sup> |
| 26134 | 6.0          | 22     | 12.7       | 28°   | ~20,000 min <sup>-1</sup> |

**1 pc./pack Double Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Angle | Speed Range               |
|-------|--------------|--------|------------|-------|---------------------------|
| 26141 | 6.0          | 13     | 6          | 22°   | ~30,000 min <sup>-1</sup> |
| 26142 | 6.0          | 19     | 6          | 14°   | ~25,000 min <sup>-1</sup> |
| 26143 | 6.0          | 16     | 9.5        | 28°   | ~20,000 min <sup>-1</sup> |
| 26144 | 6.0          | 22     | 12.7       | 28°   | ~20,000 min <sup>-1</sup> |

SHANK  $\phi 6.0$

**1 pc./pack Single Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Angle | Speed Range               |
|-------|--------------|--------|------------|-------|---------------------------|
| 26151 | 6.0          | 16     | 6          | 14°   | ~30,000 min <sup>-1</sup> |
| 26152 | 6.0          | 22     | 8          | 14°   | ~20,000 min <sup>-1</sup> |
| 26153 | 6.0          | 27     | 9.5        | 14°   | ~15,000 min <sup>-1</sup> |
| 26154 | 6.0          | 30     | 12.7       | 14°   | ~15,000 min <sup>-1</sup> |

**1 pc./pack Double Cut End Cut**

| Model | Shank $\phi$ | Length | Tip $\phi$ | Angle | Speed Range               |
|-------|--------------|--------|------------|-------|---------------------------|
| 26161 | 6.0          | 16     | 6          | 14°   | ~30,000 min <sup>-1</sup> |
| 26162 | 6.0          | 22     | 8          | 14°   | ~20,000 min <sup>-1</sup> |
| 26163 | 6.0          | 30     | 10         | 14°   | ~15,000 min <sup>-1</sup> |
| 26164 | 6.0          | 30     | 12.7       | 14°   | ~15,000 min <sup>-1</sup> |

\*Order in standard package quantities.

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools



# CARBIDE CUTTERS

• Orange code numbers indicate Titanium-Coated Type.

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

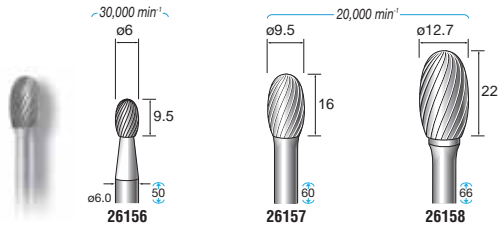
Felt Bobs

Abrasive Compounds & Polishing Tools

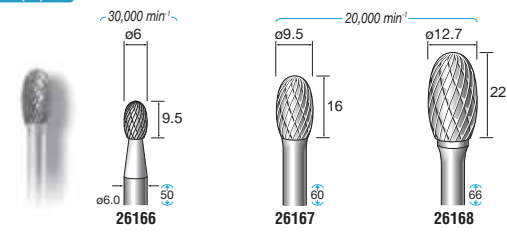
NSK Exclusive Tools

**SHANK  $\phi 6.0$**

**1 pc./pack Single Cut**

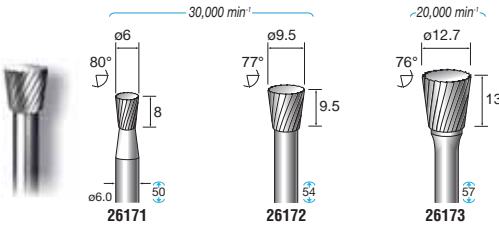


**1 pc./pack Double Cut**

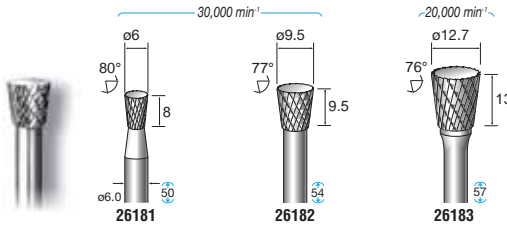


**SHANK  $\phi 6.0$**

**1 pc./pack Single Cut**

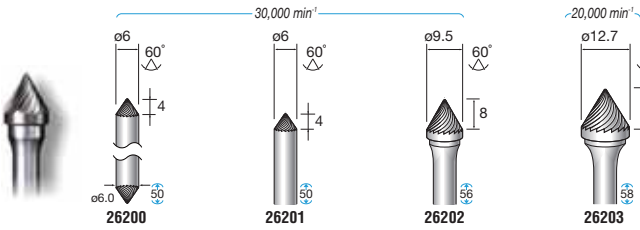


**1 pc./pack Double Cut**

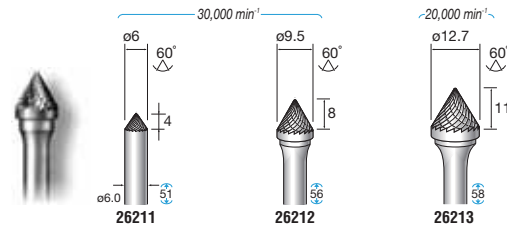


**SHANK  $\phi 6.0$**

**1 pc./pack Single Cut**

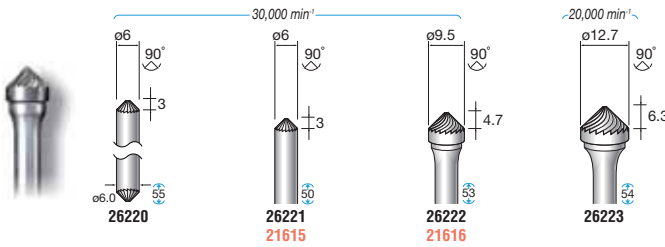


**1 pc./pack Double Cut**

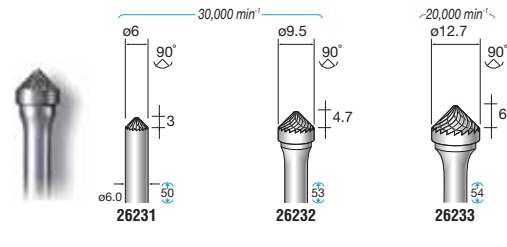


**SHANK  $\phi 6.0$**

**1 pc./pack Single Cut**

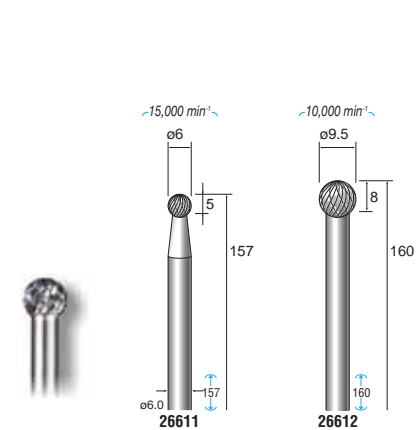


**1 pc./pack Double Cut**

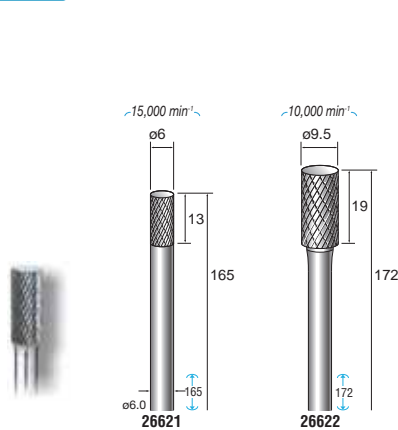


**SHANK  $\phi 6.0$**

**1 pc./pack Double Cut**



**1 pc./pack Double Cut**



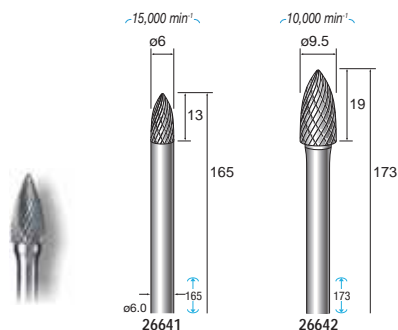
**1 pc./pack Double Cut**



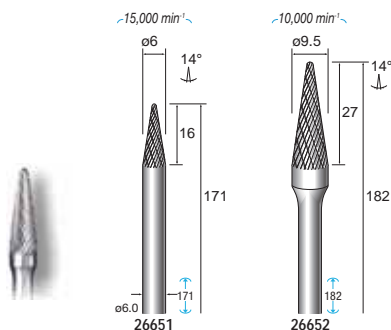
# CARBIDE CUTTERS

SHANK  $\phi 6.0$

1 pc./pack Double Cut

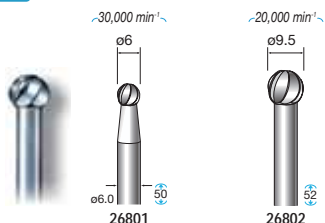


1 pc./pack Double Cut



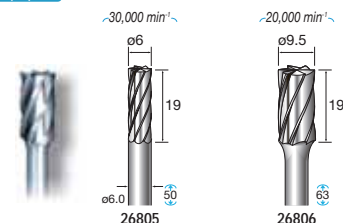
SHANK  $\phi 6.0$

1 pc./pack Single Cut

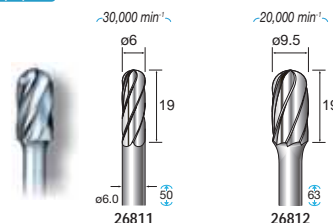


1 pc./pack Single Cut

End Cut

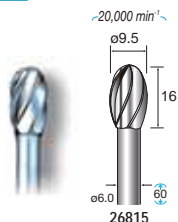


1 pc./pack Single Cut

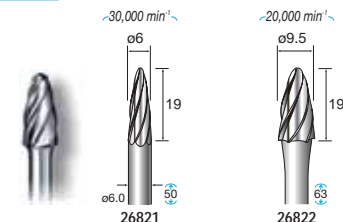


SHANK  $\phi 6.0$

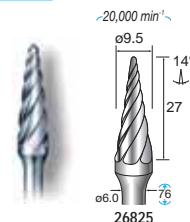
1 pc./pack Single Cut



1 pc./pack Single Cut

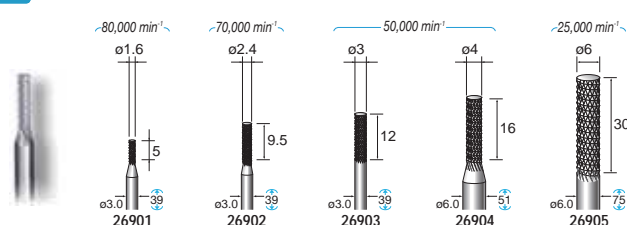


1 pc./pack Single Cut



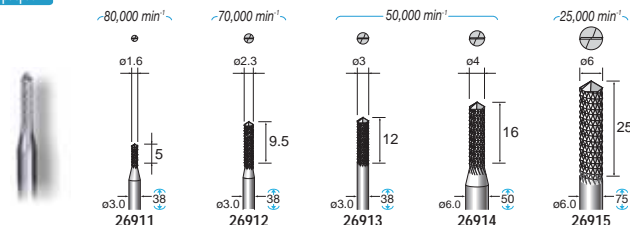
SHANK  $\phi 3.0, \phi 6.0$

1 pc./pack Diamond Cut



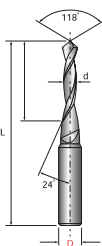
1 pc./pack Diamond Cut

Drill End



SHANK  $\phi 1.0, \phi 1.5, \phi 2.0, \phi 2.5$

1 pc./pack



| D=φ1.0 Length=30 |     |       | D=φ1.5 Length=30 |      |       | D=φ2.0 Length=38 |      |       | D=φ2.5 Length=43 |      |       |
|------------------|-----|-------|------------------|------|-------|------------------|------|-------|------------------|------|-------|
| d                | Ømm | mm    | d                | Ømm  | mm    | d                | Ømm  | mm    | d                | Ømm  | mm    |
| 0.5              | 4.0 | 26935 | 0.8              | 6.3  | 26938 | 1.5              | 11.2 | 26945 | 2.0              | 12.0 | 26950 |
| 0.6              | 4.5 | 26936 | 0.9              | 7.1  | 26939 | 1.6              | 12.0 | 26946 | 2.1              | 12.0 | 26951 |
| 0.7              | 5.6 | 26937 | 1.0              | 9.0  | 26940 | 1.7              | 12.0 | 26947 | 2.2              | 12.0 | 26952 |
|                  |     |       | 1.1              | 9.0  | 26941 | 1.8              | 12.0 | 26948 | 2.3              | 12.0 | 26953 |
|                  |     |       | 1.2              | 10.0 | 26942 | 1.9              | 12.0 | 26949 | 2.4              | 12.0 | 26954 |
|                  |     |       | 1.3              | 10.0 | 26943 |                  |      |       |                  |      |       |
|                  |     |       | 1.4              | 11.2 | 26944 |                  |      |       |                  |      |       |

# CARBIDE CUTTERS

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

**SHANK  $\phi$ 3.0**

**12 pcs./pack Single Cut Assorted Set**



| 28111<br>Titanium Coating                         |       |
|---|-------|
| Set (12 pieces)<br>(Each code No. one piece-pack) |       |
| 21201   | 21245 |
| 21205   | 21261 |
| 21212   | 21262 |
| 21213   | 21265 |
| 21241   | 21272 |
| 21242   | 21275 |

**SHANK  $\phi$ 6.0**

**8 pcs./pack Double Cut Assorted Set**



| 28115<br>Titanium Coating                        |       |
|--|-------|
| Set (8 pieces)<br>(Each code No. one piece-pack) |       |
| 21511  | 21535 |
| 21512  | 21536 |
| 21515  | 21541 |
| 21516  | 21546 |

**SHANK  $\phi$ 3.0**

**12 pcs./pack Single Cut Assorted Set**



| 28141   |       |
|---|-------|
| Set (12 pieces)<br>(Each code No. one piece-pack) |       |
| 24016   | 24301 |
| 24019   | 24303 |
| 24041   | 24305 |
| 24044   | 24402 |
| 24161   | 24452 |
| 24164   | 24454 |

**12 pcs./pack Double Cut Assorted Set**



| 28145   |       |
|---|-------|
| Set (12 pieces)<br>(Each code No. one piece-pack) |       |
| 24073   | 24362 |
| 24076   | 24364 |
| 24093   | 24366 |
| 24096   | 24504 |
| 24214   | 24532 |
| 24217   | 24534 |

**SHANK  $\phi$ 6.0**

**8 pcs./pack Single Cut Assorted Set**



| 28171  |       |
|--|-------|
| Set (8 pieces)<br>(Each code No. one piece-pack) |       |
| 26011  | 26111 |
| 26031  | 26131 |
| 26071  | 26151 |
| 26091  | 26171 |

**8 pcs./pack Single Cut Assorted Set**



| 28175  |       |
|--|-------|
| Set (8 pieces)<br>(Each code No. one piece-pack) |       |
| 26013  | 26113 |
| 26033  | 26133 |
| 26073  | 26153 |
| 26092  | 26172 |

**SHANK  $\phi$ 6.0**

**8 pcs./pack Double Cut Assorted Set**



| 28181  |       |
|--|-------|
| Set (8 pieces)<br>(Each code No. one piece-pack) |       |
| 26021  | 26121 |
| 26041  | 26141 |
| 26081  | 26161 |
| 26101  | 26181 |

**8 pcs./pack Double Cut Assorted Set**



| 28185  |       |
|--|-------|
| Set (8 pieces)<br>(Each code No. one piece-pack) |       |
| 26023  | 26123 |
| 26043  | 26143 |
| 26083  | 26163 |
| 26102  | 26182 |

**SHANK  $\phi$ 3.0**

**12 pcs./pack Alloy Cut Assorted Set**



| 24601   |       |
|---|-------|
| Set (12 pieces)<br>(Each code No. one piece-pack) |       |
| 24611   | 24646 |
| 24612   | 24651 |
| 24622   | 24653 |
| 24623   | 24654 |
| 24631   | 24661 |
| 24632   | 24663 |

\* Wood box will be replaced with the plastic case when the stock of wood box is sold out.

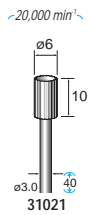
**SPECIALTY TOOLS**



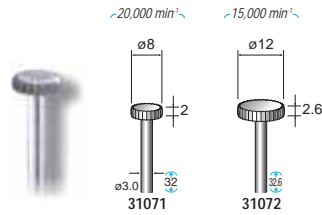
High Speed Steel(H.S.S.)Cutters.  
For cutting of general steels,  
light metals, non-metals, plastics,  
resins, etc.

**SHANK  $\phi 3.0$**

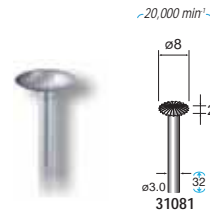
1 pc./pack



1 pc./pack



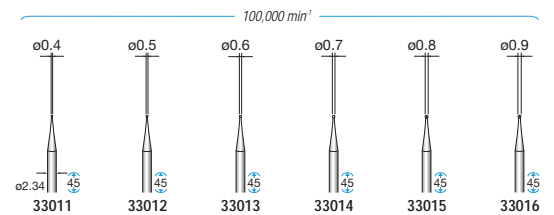
1 pc./pack



Tungsten Vanadium Steel Cutters.  
For fine finishing of soft materials,  
resins, bronze, acrylics, etc.

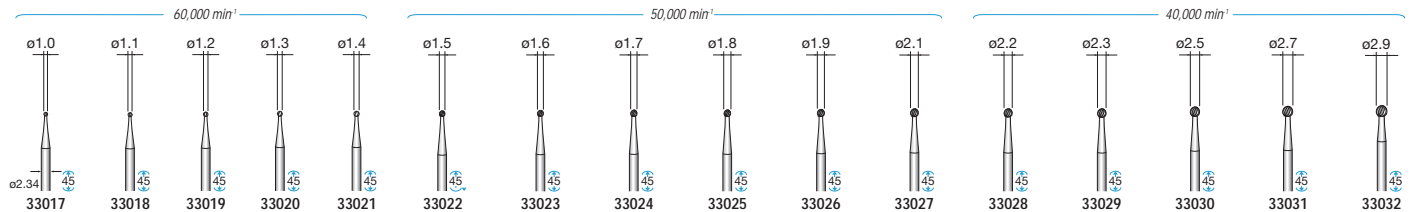
**SHANK  $\phi 2.34$**

12 pcs./pack



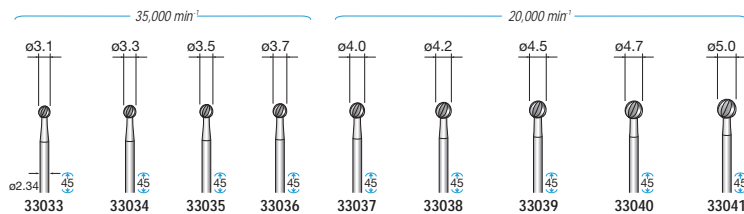
**SHANK  $\phi 2.34$**

12 pcs./pack



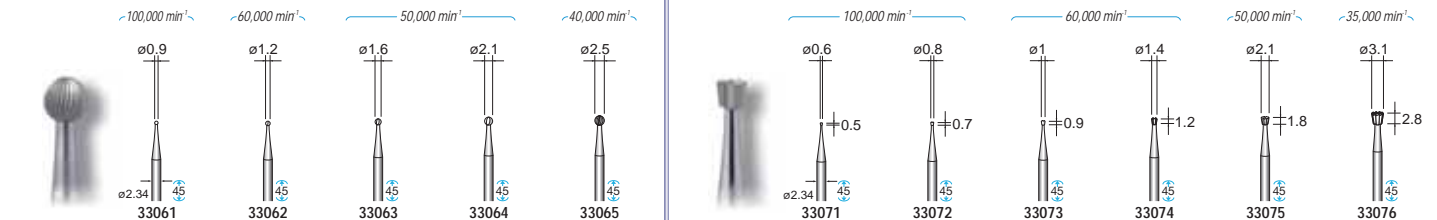
**SHANK  $\phi 2.34$**

12 pcs./pack



**SHANK  $\phi 2.34$**

12 pcs./pack



\*Order in standard package quantities.

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools



**SPECIALTY TOOLS**

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

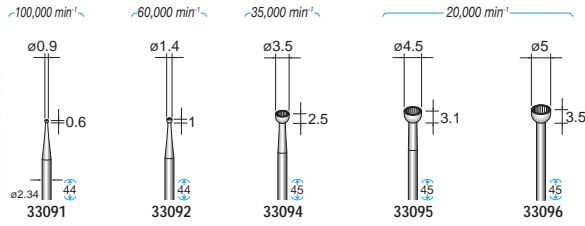
Felt Bobs

Abrasive Compounds & Polishing tools

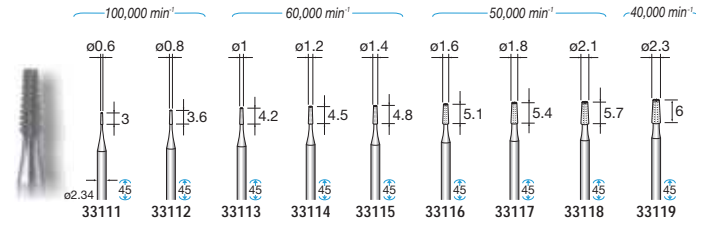
NSK Exclusive Tools

**SHANK  $\phi 2.34$**

12 pcs./pack



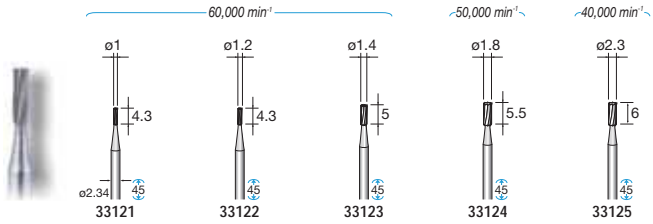
**12 pcs./pack Tapered Type**



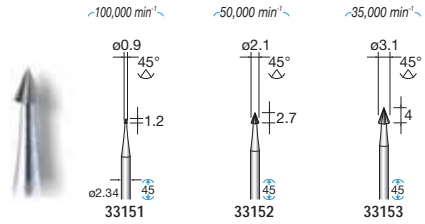
**SHANK  $\phi 2.34$**

12 pcs./pack

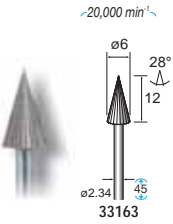
Straight Type



12 pcs./pack

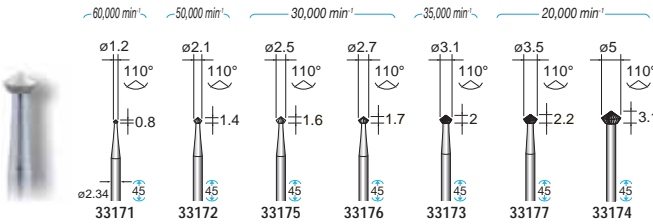


6 pcs./pack

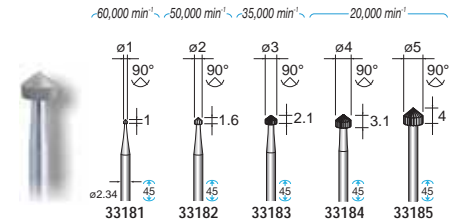


**SHANK  $\phi 2.34$**

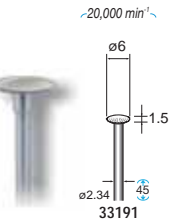
12 pcs./pack



12 pcs./pack

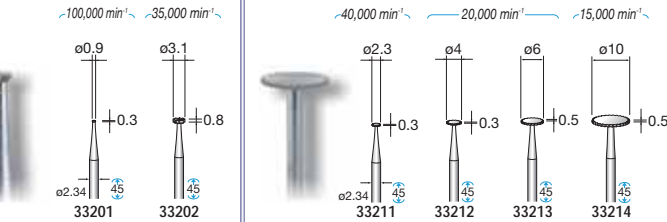


1 pc./pack

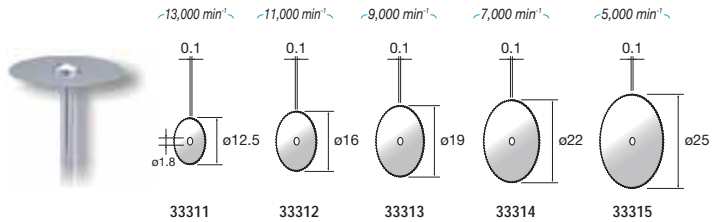


**SHANK  $\phi 2.34$**

12 pcs./pack



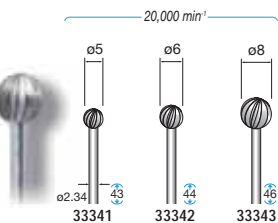
**10 pcs./pack Saw Blade**



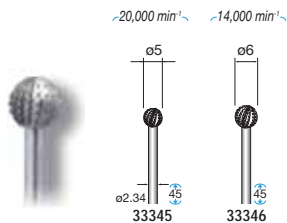
\*Use with corresponding mandrels P.29(37011, 37012, 37015, 37051). \*Mandrel is purchased separately.

**SHANK  $\phi 2.34$**

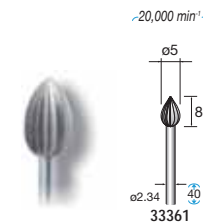
6 pcs./pack



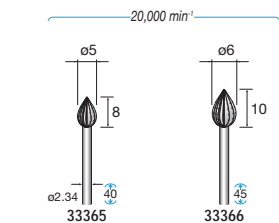
6 pcs./pack



6 pcs./pack

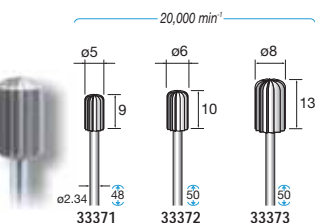


6 pcs./pack

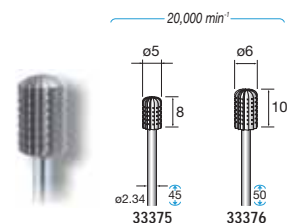


**SHANK  $\phi 2.34$**

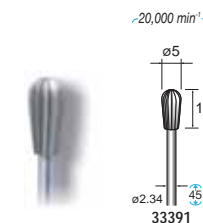
6 pcs./pack



6 pcs./pack

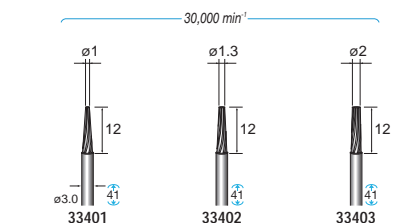


6 pcs./pack



**SHANK  $\phi 3.0$**

6 pcs./pack



\*Cutting for plastic and acryl.

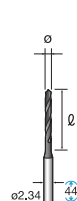
## SPECIALTY TOOLS



Tempered Steel Drills for plastics and woods. High Speed Steel Drills for steels and stainless steels, Carbide Drills for PCB, FRP.

### SHANK $\phi 2.34$

12 pcs./pack **Tempered Steel Drill** (Total Length : 44 mm) : 15,000 min<sup>-1</sup>

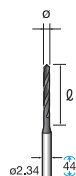


| $\phi$ mm | L mm |       | $\phi$ mm | L mm |       | $\phi$ mm | L mm |       |
|-----------|------|-------|-----------|------|-------|-----------|------|-------|
| 0.5       | 8    | 36011 | 1.2       | 10   | 36018 | 2.3       | 12   | 36029 |
| 0.6       | 8    | 36012 | 1.3       | 10   | 36019 |           |      |       |
| 0.7       | 8    | 36013 | 1.4       | 10   | 36020 |           |      |       |
| 0.8       | 8    | 36014 | 1.5       | 10   | 36021 |           |      |       |
| 0.9       | 10   | 36015 | 1.6       | 10   | 36022 |           |      |       |
| 1.0       | 10   | 36016 | 1.8       | 12   | 36024 |           |      |       |
| 1.1       | 10   | 36017 | 2.1       | 12   | 36027 |           |      |       |

•  $\phi 0.5$ -2.3 mm each 1 pc. Full Size Set  
(No. 36011 ~ 36029 ; 15 pcs. - pack) ;  
Special case provided ..... **36030**

### SHANK $\phi 2.34$

10 pcs./pack **High Speed Steel (H.S.S) Drill** (Total Length : 44 mm) : 20,000 min<sup>-1</sup>

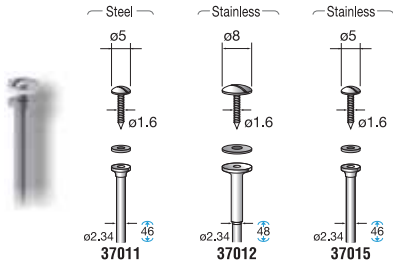


| $\phi$ mm | L mm |       | $\phi$ mm | L mm |       | $\phi$ mm | L mm |       |
|-----------|------|-------|-----------|------|-------|-----------|------|-------|
| 0.5       | 9    | 36051 | 1.2       | 11   | 36058 | 1.9       | 12   | 36065 |
| 0.6       | 9    | 36052 | 1.3       | 11   | 36059 | 2.0       | 12   | 36066 |
| 0.7       | 9    | 36053 | 1.4       | 11   | 36060 | 2.1       | 12   | 36067 |
| 0.8       | 11   | 36054 | 1.5       | 12   | 36061 | 2.2       | 12   | 36068 |
| 0.9       | 11   | 36055 | 1.6       | 12   | 36062 | 2.3       | 12   | 36069 |
| 1.0       | 11   | 36056 | 1.7       | 12   | 36063 |           |      |       |
| 1.1       | 11   | 36057 | 1.8       | 12   | 36064 |           |      |       |

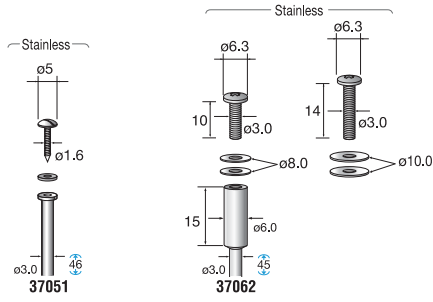
•  $\phi 0.5$ -2.3 mm each 1 pc. Full Size Set  
(No. 36051 ~ 36069 ; 19 pcs. - pack) ;  
Special case provided ..... **36070**

**SPECIALTY TOOLS**

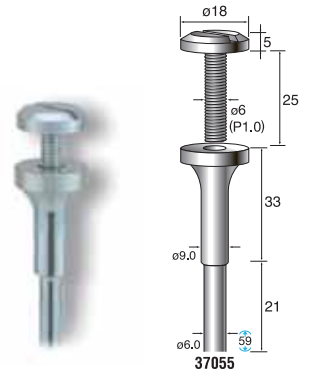
**SHANK  $\phi 2.34$**   
10 pcs./pack Mandrels



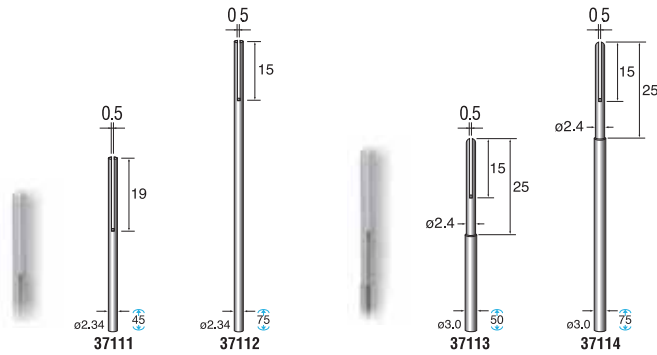
**SHANK  $\phi 3.0$**   
10 pcs./pack Mandrels 3 pcs./pack Mandrels



**SHANK  $\phi 6.0$**   
1 pc./pack Mandrels



**SHANK  $\phi 2.34, \phi 3.0$**   
10 pcs./pack



Diamond / CBN

Carbide Cutters

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# MOUNTED POINTS

## Types of Abrasive Grain

"Abrasive Grain" is a general term of very hard abrasive particles for polishing and grinding. Abrasive Grain is harder than work materials and functions to grind work materials. Abrasive Grain is classified generally into three types.

### Alumina type

Primary ingredient is alumina (aluminium oxide :  $Al_2O_3$ ).

- A** : For rough grinding of iron and steel materials, low carbon steels, forged products, castings and raw steel materials.
- WA** : For general grinding of alloy steels, tool steels and carbon steels.
- PA** : For general grinding of heat treated alloy steels, tool steels, and stainless steels.

### Silicon Carbide type

Primary ingredient is silicon carbide (SiC).

- C** : For general grinding of cast iron, chilled cast iron, copper, bronze, brass, aluminum and non ferrous metals.
- GC** : For general grinding of super hard alloys, ceramics, stone, jewelry, glass, pottery, wood and synthetic resins.

## Mixed Abrasive Grain type

Mixed use of abrasive grain of the same type

- PA • W** : For precision grinding of high speed steel, alloy steels, tool steels and special alloys.
- A • WA** : For rough grinding of iron and steel materials, low carbon steels, forged products, castings, steel materials and stainless steels.

## Bonding Material

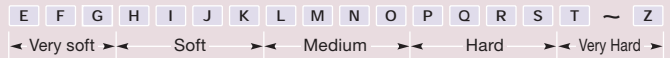
Material used to bond and hold abrasive grains.  
Primary bonding materials are shown below.

- V (vitrified)** : Mainstream of magnetic bonding material, grinding stone
- B (resinoid)** : Bonding material is mainly made of thermosetting
- R (rubber)** : Hard rubber
- E (shellac)** : Thermoplastic resin (natural resin)

## Hardness Grade

This shows bonding strength of abrasive grain, bonding materials and wear resistance of grinding stone. The Hardness Grade is measured by various instruments. The hardness is classified from A to Z, A is the softest while Z is the hardest.

Hardness Grade

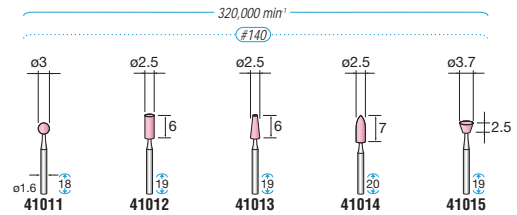


1.6 mm shank diameter series.  
Short Shank Type grindstones for high-speed rotation. Ideal for very small parts.

### SHANK $\phi 1.6$

10 pcs./pack

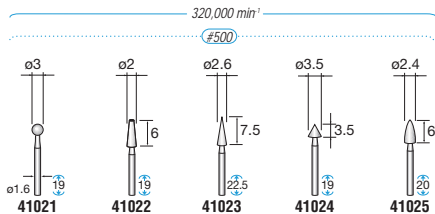
WA V P PINK



### SHANK $\phi 1.6$

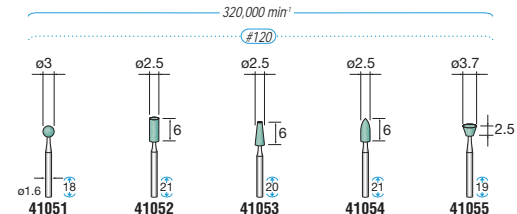
10 pcs./pack

WA V P WHITE



10 pcs./pack

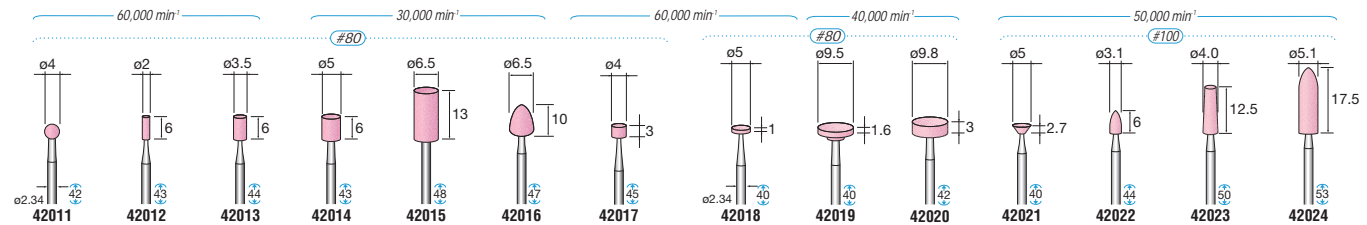
GC V M GREEN



### SHANK $\phi 2.34$

10 pcs./pack

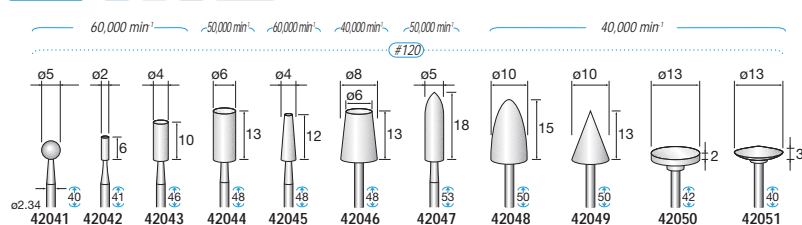
WA V P PINK



### SHANK $\phi 2.34$

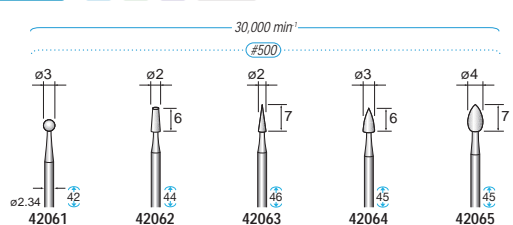
10 pcs./pack

WA V P WHITE



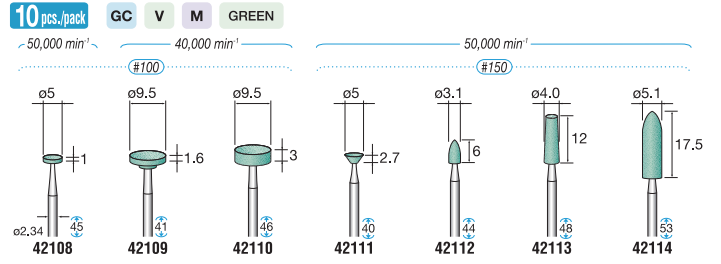
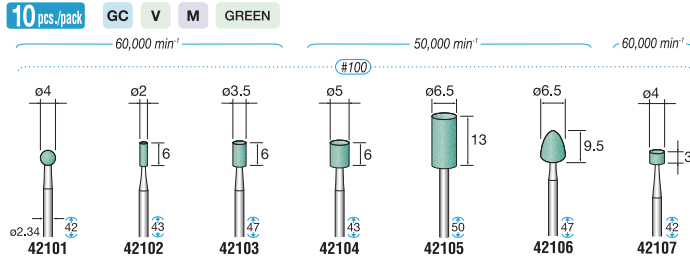
10 pcs./pack

WA V P WHITE



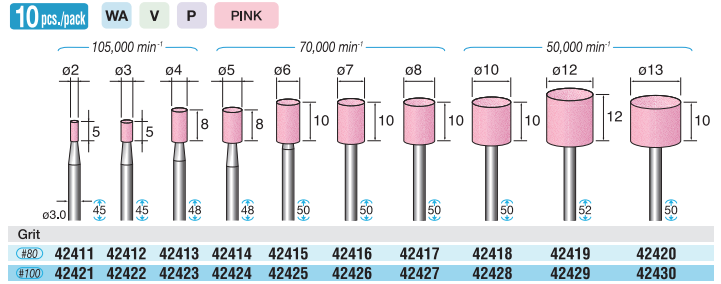
# MOUNTED POINTS

## SHANK $\phi 2.34$

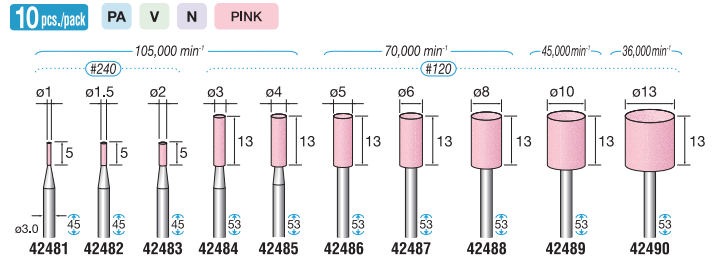
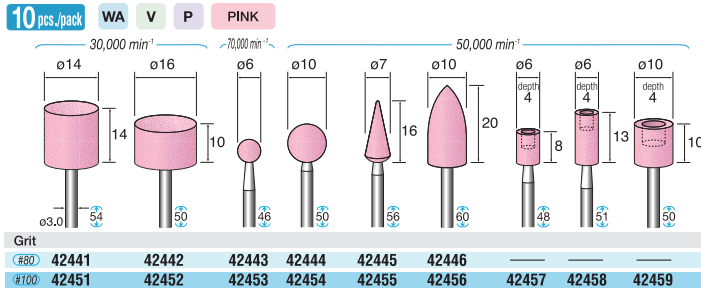


3.0 mm shank diameter series.  
Perfect for high surface finishing,  
precision work.

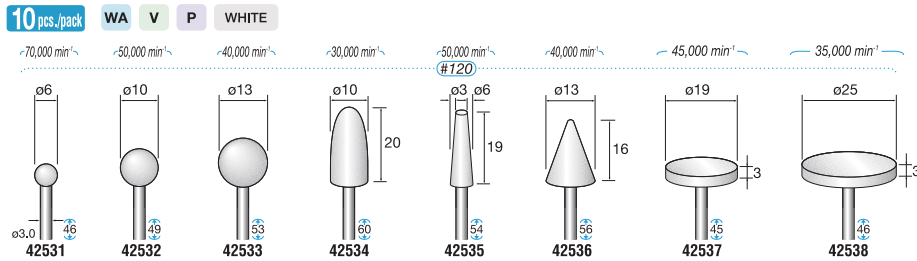
## SHANK $\phi 3.0$



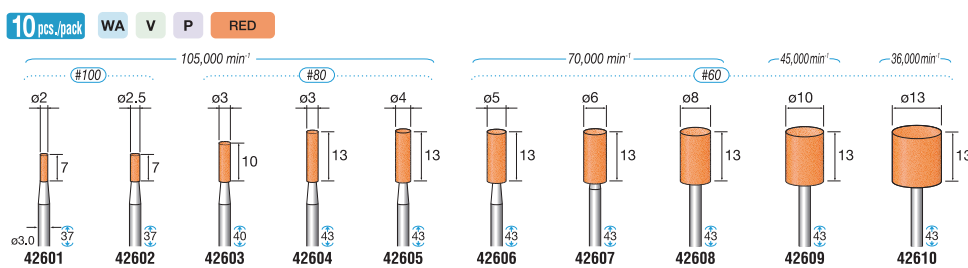
## SHANK $\phi 3.0$



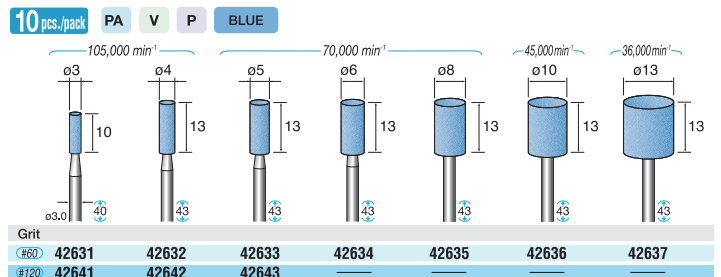
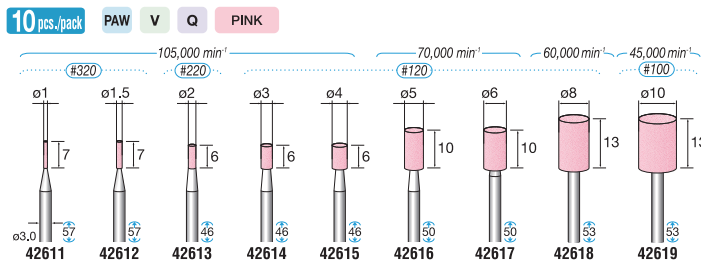
## SHANK $\phi 3.0$



## SHANK $\phi 3.0$



## SHANK $\phi 3.0$

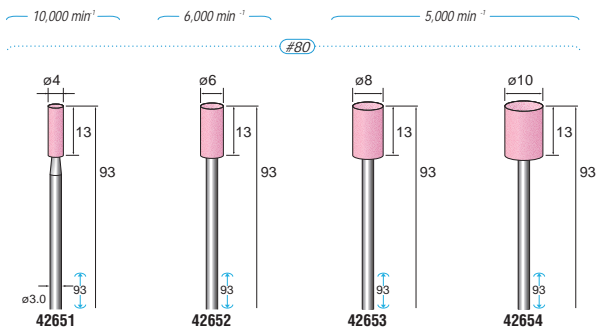




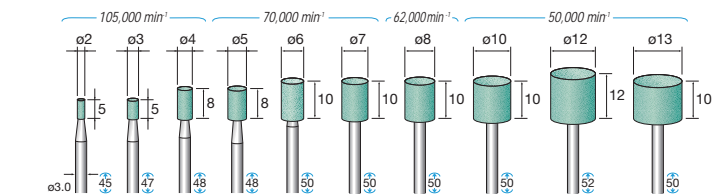
# MOUNTED POINTS

## SHANK $\phi 3.0$

10 pcs./pack WA V P PINK



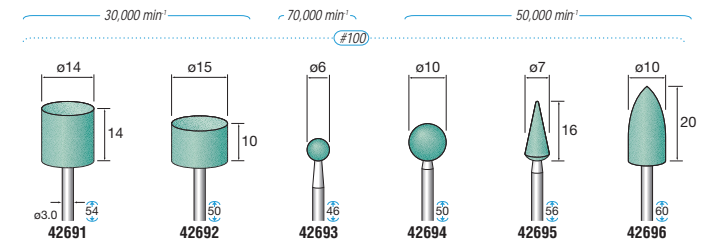
## SHANK $\phi 3.0$



| Grit | 42663 | 42665 | 42667 | 42668 | 42670 |
|------|-------|-------|-------|-------|-------|
| #60  | 42681 | 42682 | 42683 | 42684 | 42685 |
| #100 | 42681 | 42682 | 42683 | 42684 | 42685 |

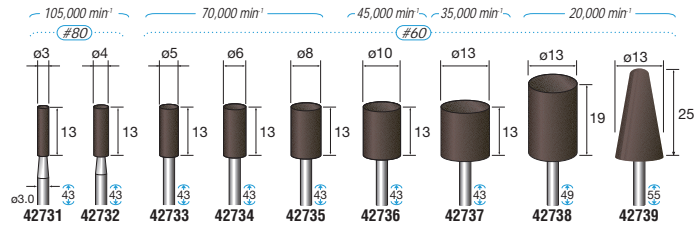
## SHANK $\phi 3.0$

10 pcs./pack GC V M GREEN



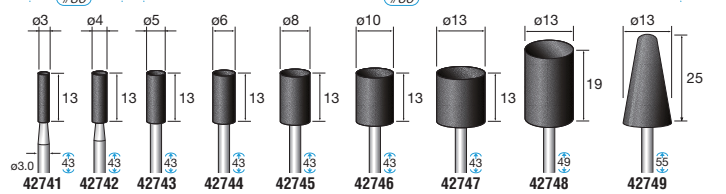
## SHANK $\phi 3.0$

10 pcs./pack A+WA B Q BROWN



## SHANK $\phi 3.0$

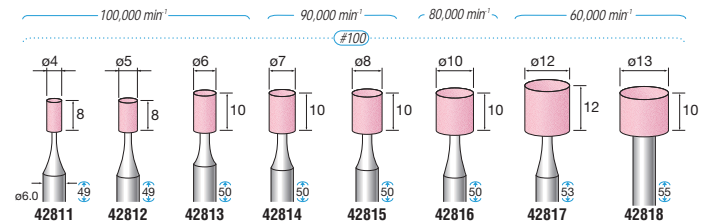
10 pcs./pack A B Q BLACK



6.0 mm shank diameter series.  
High quality finishing grindstones.

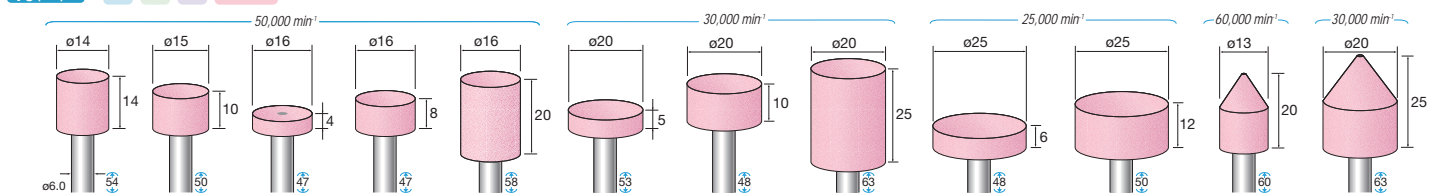
## SHANK $\phi 6.0$

10 pcs./pack WA V Q PINK



## SHANK $\phi 6.0$

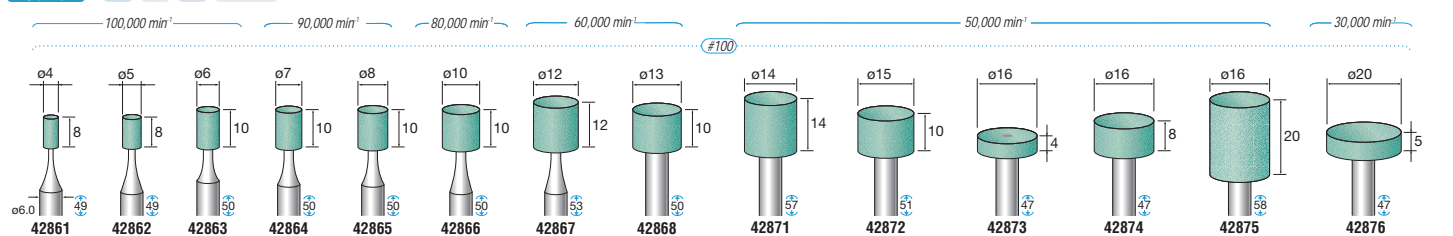
10 pcs./pack WA V Q PINK



| Grit | 42821 | 42822 | 42823 | 42824 | 42825 | 42826 | 42841 | 42842 | 42843 | 42844 | 42845 | 42846 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| #60  | 42821 | 42822 | 42823 | 42824 | 42825 | 42826 | 42841 | 42842 | 42843 | 42844 | 42845 | 42846 |
| #90  | 42833 | 42834 | 42835 | 42836 | 42851 | 42852 | 42853 | 42854 | 42855 | 42856 |       |       |

## SHANK $\phi 6.0$

10 pcs./pack GC V M GREEN



\*Order in standard package quantities.

Diamond / CBN  
Carbide Cutters  
Specialty Tools  
Mounted Points  
Rubberized Abrasives  
Flap Wheels  
Polishing Brushes  
Felt Bobs  
Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools

**MOUNTED POINTS**

Diamond / CBN

Carbide Cutters

Specialty Tools

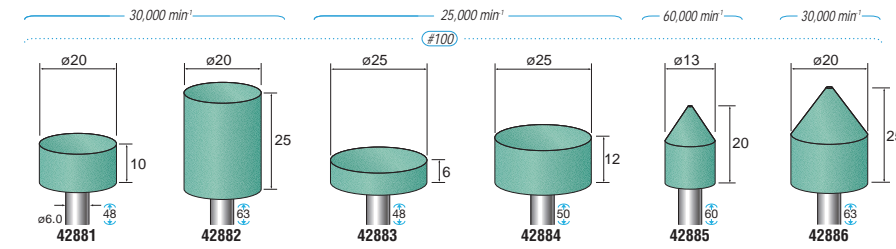
Mounted Points

Rubberized Abrasives

NSK Exclusive Tools

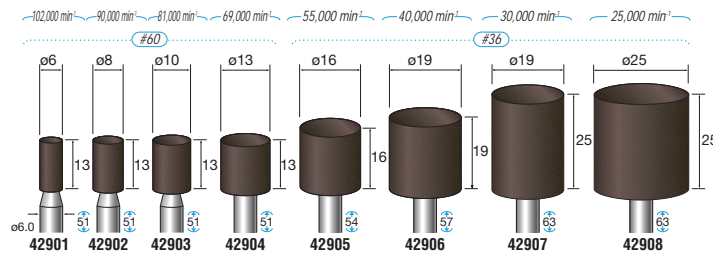
**SHANK  $\phi 6.0$**

10 pcs./pack GC V M GREEN

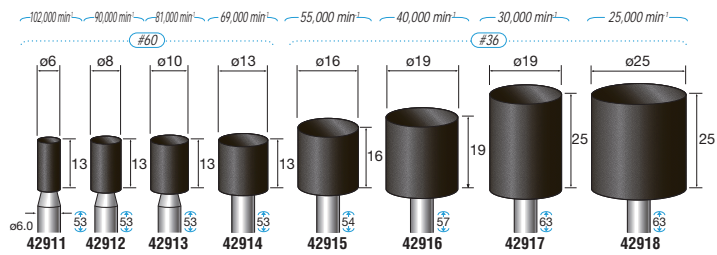


**SHANK  $\phi 6.0$**

10 pcs./pack A-WA B Q BROWN

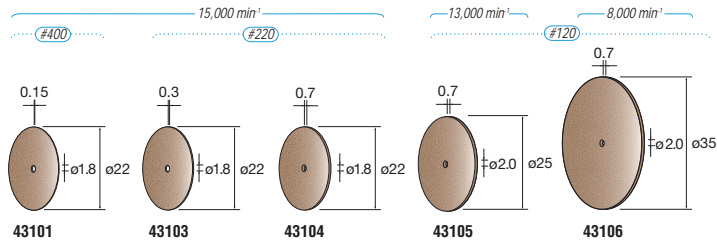


10 pcs./pack A B Q BLACK



Grinding disk for metal grinding, slitting and cutting. Can easily be attached to mandrels (P.29)  
\*Mandrel is purchased separately.

10 pcs./pack WA



**SHANK  $\phi 2.34$**

18 pcs./pack Assorted Set



| 43401  |       |      |       |      |       |
|--|-------|------|-------|------|-------|
| Set (18 pieces) (Each code No. one piece-pack) |       |      |       |      |       |
| WA   |       |      | GC    |      |       |
| #80  | 42011 | #80  | 42020 | #100 | 42101 |
| #80  | 42012 | #120 | 42047 | #100 | 42102 |
| #80  | 42013 | #120 | 42048 | #100 | 42103 |
| #80  | 42014 | #120 | 42050 | #100 | 42104 |
| #80  | 42016 | #120 | 42051 | #100 | 42106 |
| #80  | 42018 | #100 | 42018 | #100 | 42108 |
|  |       |      |       | #100 | 42110 |

**SHANK  $\phi 3.0$**

18 pcs./pack Assorted Set



| 43405  |       |      |       |      |       |
|--|-------|------|-------|------|-------|
| Set (18 pieces) (Each code No. one piece-pack) |       |      |       |      |       |
| WA   |       |      | PA    |      |       |
| #100   | 42421 | #100 | 42428 | #120 | 42484 |
| #100   | 42422 | #100 | 42430 | #120 | 42485 |
| #100   | 42423 | #100 | 42454 | #120 | 42486 |
| #100   | 42424 | #100 | 42455 | #120 | 42487 |
| #100   | 42425 | #100 | 42456 | #120 | 42488 |
| #100   | 42427 | #100 | 42427 | #120 | 42489 |
|  |       |      |       | #120 | 42490 |

**SHANK  $\phi 3.0$**

15 pcs./pack Assorted Set



| 43410  |       |      |       |     |       |
|--|-------|------|-------|-----|-------|
| Set (15 pieces) (Each code No. one piece-pack) |       |      |       |     |       |
| PAW  |       |      | PA    |     |       |
| #320   | 42612 | #120 | 42616 | #60 | 42631 |
| #220   | 42613 | #120 | 42617 | #60 | 42632 |
| #120   | 42614 | #120 | 42618 | #60 | 42633 |
| #120   | 42615 | #100 | 42619 | #60 | 42634 |
|  |       |      |       | #60 | 42635 |
|  |       |      |       | #60 | 42636 |
|  |       |      |       | #60 | 42637 |

12 pcs./pack Assorted Set



| 43415  |       |      |       |  |  |
|--|-------|------|-------|--|--|
| Set (12 pieces) (Each code No. one piece-pack) |       |      |       |  |  |
| GC   |       |      |       |  |  |
| #100   | 42681 | #100 | 42688 |  |  |
| #100   | 42682 | #100 | 42690 |  |  |
| #100   | 42683 | #100 | 42692 |  |  |
| #100   | 42684 | #100 | 42694 |  |  |
| #100   | 42685 | #100 | 42695 |  |  |
| #100   | 42687 | #100 | 42696 |  |  |

# RUBBERIZED ABRASIVES



1.6 mm shank diameter series. Short type for high-speed rotation. Ideal for grinding very small parts.



2.34 mm shank diameter series. Perfect for precision finishing and deburring.

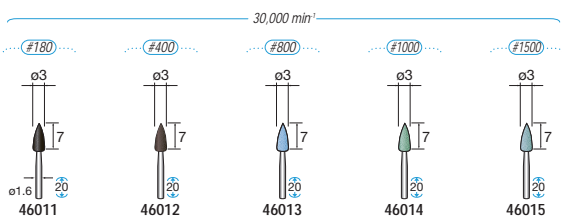
## SHANK Ø1.6

10 pcs./pack

WA

### Silicon Polisher

Abrasive Power ★★★★★  
Grinding Power ★★★★★  
Rubber Hardness Soft



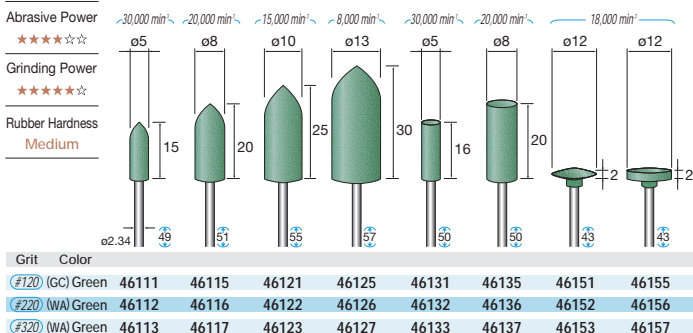
## SHANK Ø2.34

10 pcs./pack

WA GC

### Green Polisher

Abrasive Power ★★★★★  
Grinding Power ★★★★★  
Rubber Hardness Medium

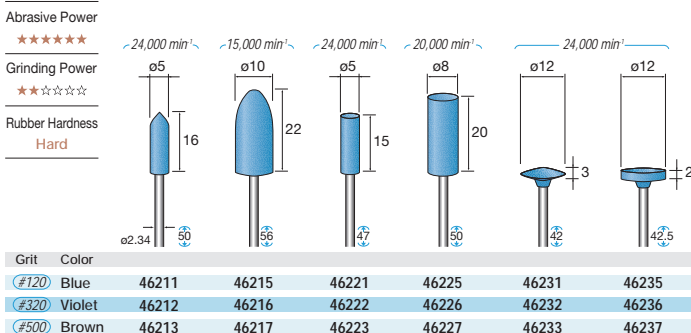


10 pcs./pack

WA

### High Shine Polisher

Abrasive Power ★★★★★  
Grinding Power ★★★★★  
Rubber Hardness Hard



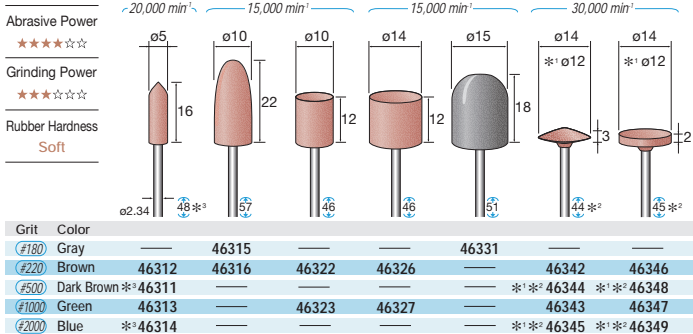
## SHANK Ø2.34

10 pcs./pack

WA

### Silicon Polisher

Abrasive Power ★★★★★  
Grinding Power ★★★★★  
Rubber Hardness Soft



\*1 46344,46345,46348,46349 is diameter ø12.  
\*2 46344,46345,46348,46349 is Total Length 42mm.  
\*3 46311,46314 is Total Length 50mm.



3.0 mm shank diameter series. Produces a smoother, better surface finish due to greater pliability versus standard grindstones.

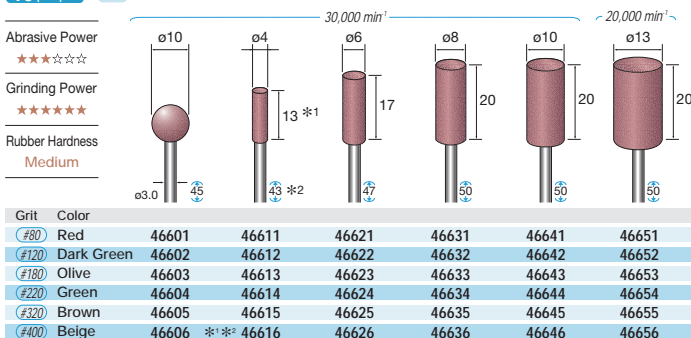
## SHANK Ø3.0

10 pcs./pack

WA

### Power Polisher

Abrasive Power ★★★★★  
Grinding Power ★★★★★  
Rubber Hardness Medium



\*1 46616 is Total Length 15mm. \*2 46616 is Total Length 45mm.

# RUBBERIZED ABRASIVES

## SHANK $\phi 3.0$

### 10 pcs./pack WA GC Green Polisher

Abrasive Power ★★★★★☆  
 Grinding Power ★★★★★☆  
 Rubber Hardness Medium

| Grit      | Color | 46721 | 46731 | 46741 | 46751 | 46761 | 46771 |
|-----------|-------|-------|-------|-------|-------|-------|-------|
| #150 (GC) | Green | 46721 | 46731 | 46741 | 46751 | 46761 | 46771 |
| #220 (WA) | Green | 46722 | 46732 | 46742 | 46752 | 46762 | 46772 |
| #320 (WA) | Green | 46724 | 46734 | 46744 | 46754 | 46764 | 46774 |
| #400 (WA) | Green | 46723 | 46733 | 46743 | 46753 | 46763 | 46773 |

### 10 pcs./pack WA High Shine Polisher

Abrasive Power ★★★★★★  
 Grinding Power ★★★★★☆  
 Rubber Hardness Hard

| Grit | Color  | 46802 | 46812 | 46822 | 46832 |
|------|--------|-------|-------|-------|-------|
| #120 | Blue   | 46802 | 46812 | 46822 | 46832 |
| #220 | Green  | 46805 | 46815 | 46825 | 46835 |
| #320 | Violet | 46803 | 46813 | 46823 | 46833 |
| #500 | Brown  | 46804 | 46814 | 46824 | 46834 |

## SHANK $\phi 3.0$

### 10 pcs./pack WA Green Polisher

Abrasive Power ★★★★★☆  
 Grinding Power ★★★★★☆  
 Rubber Hardness Medium

| Grit | Color | 46861 | 46871 |
|------|-------|-------|-------|
| #120 | Green | 46861 | 46871 |
| #180 | Green | 46862 | 46872 |
| #320 | Green | 46863 | 46873 |
| #400 | Green | 46864 | 46874 |

### 10 pcs./pack WA Long Reach Power Polisher

Abrasive Power ★★★★★☆  
 Grinding Power ★★★★★☆  
 Rubber Hardness Medium

| Grit | Color      | 46901 | 46911 | 46921 | 46931 |
|------|------------|-------|-------|-------|-------|
| #80  | Red        | 46901 | 46911 | 46921 | 46931 |
| #120 | Dark Green | 46902 | 46912 | 46922 | 46932 |
| #180 | Olive      | 46903 | 46913 | 46923 | 46933 |
| #220 | Green      | 46904 | 46914 | 46924 | 46934 |
| #320 | Brown      | 46905 | 46915 | 46925 | 46935 |

## SHANK $\phi 3.0$

### 10 pcs./pack WA Special Rubber Grindstone For High-Speed Rotation (For 60,000min<sup>-1</sup>)



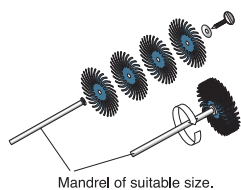
Special rubber grindstones for high speed rotation.  
 Useful for grinding and polishing with IMPULSE & ESPERT 500 (Both Nakanishi Micro-grinder Series) because of long durability at high speeds of 60,000min<sup>-1</sup>.

- Micro Air Grinder "IMPULSE".....Max. Speed: 60,000min<sup>-1</sup>
- Brushless Micro-Grinder "ESPERT 500" .....Max. Speed: 50,000min<sup>-1</sup>

Abrasive Power ★★★★★☆  
 Grinding Power ★★★★★☆  
 Rubber Hardness Medium

| Grit | Color  | 46951 | 46956 | 46961 | 46966 |
|------|--------|-------|-------|-------|-------|
| #80  | Brown  | 46951 | 46956 | 46961 | 46966 |
| #120 | Black  | 46952 | 46957 | 46962 | 46967 |
| #220 | Red    | 46953 | 46958 | 46963 | 46968 |
| #320 | Violet | 46954 | 46959 | 46964 | 46969 |

# RUBBERIZED ABRASIVES



Spiral abrasive rubber disk for finishing. Useful for efficient finishing because of the spiral shape. These tools can be used with mandrels (37011, 37051, 37062, 47042, 47043, 47044). Please use a mandrel of suitable size.

**10 pcs./pack**

30,000 min<sup>-1</sup>

0.8  
14.3  
1.6

30,000 min<sup>-1</sup>

0.8  
19  
1.6

25,000 min<sup>-1</sup>

1.5  
25.4  
3.2

| Grit  | Color | Code  | Grit  | Color  | Code  | Grit | Color  | Code  |
|-------|-------|-------|-------|--------|-------|------|--------|-------|
| #120  | White | 47001 | #80   | Yellow | 47011 | #36  | Brown  | 47021 |
| #220  | Brown | 47002 | #220  | Brown  | 47012 | #50  | Green  | 47022 |
| #400  | Blue  | 47003 | #400  | Blue   | 47013 | #80  | Yellow | 47023 |
| #800  | Pink  | 47004 | #800  | Pink   | 47014 | #120 | White  | 47024 |
| #3000 | Beige | 47005 | #3000 | Beige  | 47015 |      |        |       |
| #8000 | Green | 47006 | #8000 | Green  | 47016 |      |        |       |

Assorted Set

47009

Set (12 pieces)  
(47001-47006)

Assorted Set

47019

Set (12 pieces)  
(47011-47016)

Assorted Set

47029

Set (8 pieces)  
(47021-47024)

**5 pcs./pack**

| Grit  | Color  | Code  |
|-------|--------|-------|
| #80   | Yellow | 47031 |
| #120  | White  | 47032 |
| #220  | Brown  | 47033 |
| #400  | Blue   | 47034 |
| #800  | Pink   | 47035 |
| #3000 | Beige  | 47036 |
| #8000 | Green  | 47037 |

**Assorted Set**

47039

Set (7 pieces)  
(47031-47037)

**SHANK Ø2.34, Ø3.0, Ø6.0**

**10 pcs./pack**

Ø14.3 · Ø19mm  
1-8

Ø5  
Ø1.6

37011    37051

**3 pcs./pack**

Ø25.4mm  
1-4

Ø6.3  
10  
14  
Ø3.0  
Ø8.0  
Ø10.0

37062

**1 pc./pack**

1-2

Ø25

47042

3-7

Ø25

47043

10-12

Ø25

47044



6.0 mm shank diameter series. Easy to use rubber grindstone's feature low noise levels and because of increased pliability produce very fine surface finishes.

**SHANK Ø6.0**

**10 pcs./pack WA Power Polisher**

| Abrasive Power | Grinding Power | Rubber Hardness |
|----------------|----------------|-----------------|
| ★★★★☆          | ★★★★★          | Medium          |

20,000 min<sup>-1</sup>

Ø10  
20  
60

15,000 min<sup>-1</sup>

Ø15  
25  
60

12,000 min<sup>-1</sup>

Ø20  
20  
55

12,000 min<sup>-1</sup>

Ø25  
25  
60

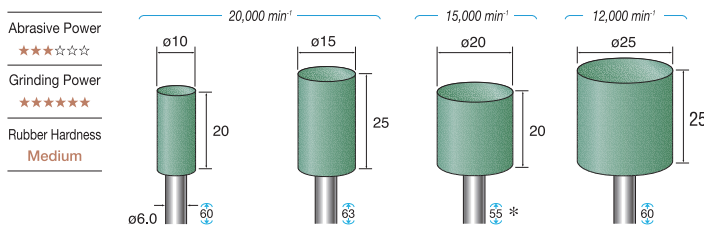
| Grit | Color      | Code  | Code  | Code  | Code  |
|------|------------|-------|-------|-------|-------|
| #80  | Red        | 47501 | 47511 | 47521 | 47531 |
| #120 | Dark Green | 47502 | 47512 | 47522 | 47532 |
| #220 | Green      | 47503 | 47513 | 47523 | 47533 |
| #320 | Brown      | 47504 | 47514 | 47524 | 47534 |



# RUBBERIZED ABRASIVES

## SHANK $\phi 6.0$

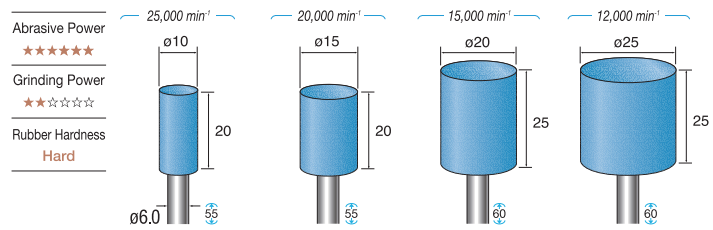
### 10 pcs./pack WA Green Polisher



| Grit | Color | 47551 | 47561 | 47571   | 47581 |
|------|-------|-------|-------|---------|-------|
| #120 | Green | 47551 | 47561 | 47571   | 47581 |
| #220 | Green | 47552 | 47562 | * 47572 | 47582 |
| #320 | Green | 47553 | 47563 | 47573   | 47583 |
| #400 | Green | 47554 | 47564 | * 47574 | 47584 |

\*47572,47574 is Total Length 60mm.

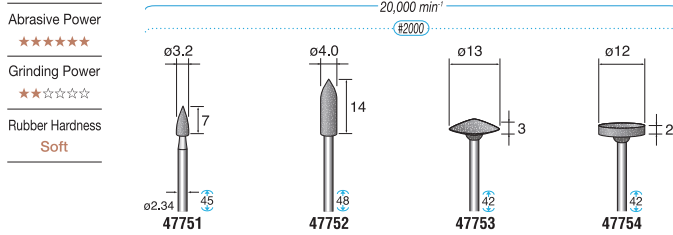
### 10 pcs./pack WA High Shine Polisher



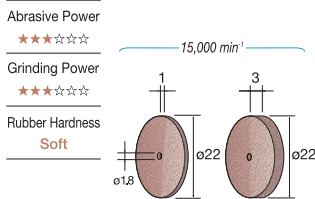
| Grit | Color  | 47601 | 47611 | 47621 | 47631 |
|------|--------|-------|-------|-------|-------|
| #80  | Red    | 47601 | 47611 | 47621 | 47631 |
| #120 | Blue   | 47602 | 47612 | 47622 | 47632 |
| #220 | Green  | 47603 | 47613 | 47623 | 47633 |
| #320 | Violet | 47604 | 47614 | 47624 | 47634 |
| #500 | Brown  | 47605 | 47615 | 47625 | 47635 |

## SHANK $\phi 2.34$

### 3 pcs./pack



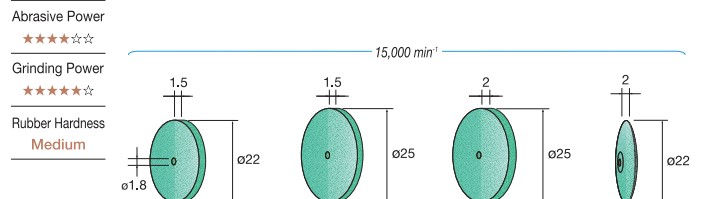
### 10 pcs./pack WA Silicon Wheel Rubber Grindstone



| Grit  | Color      | 47804 | 47805 | 47806 | 47807 |
|-------|------------|-------|-------|-------|-------|
| #120  | Black      | 47804 | 47805 | 47806 | 47807 |
| #180  | Gray       | 47802 | 47805 | 47806 | 47807 |
| #240  | Brown      | 47802 | 47806 | 47806 | 47807 |
| #500  | Dark Brown | 47808 | 47808 | 47808 | 47808 |
| #1800 | Green      | 47803 | 47807 | 47807 | 47807 |

\*Use after attaching to mandrel P.29 (No.37011~37051).  
\*Mandrel needs to be purchased separately.

### 10 pcs./pack WA Green Wheel Rubber Grindstone



| Grit | Color | 47841 | 47851 | 47861 | 47871 |
|------|-------|-------|-------|-------|-------|
| #120 | Green | 47841 | 47851 | 47861 | 47871 |
| #220 | Green | 47842 | 47852 | 47862 | 47872 |
| #320 | Green | 47843 | 47853 | 47863 | 47873 |

\*Use after attaching to mandrel P.29 (No. 37011~37051).  
\*Mandrel needs to be purchased separately.

## SHANK $\phi 2.34$

### 12 pcs./pack Abrasive Rubber Point Assortment Set



| 47901  |                            |                         |
|--|----------------------------|-------------------------|
| Set (12 pieces) (Each code No. one piece-pack) |                            |                         |
| Green Polisher (#220)                          | High Shine Polisher (#320) | Silicon Polisher (#500) |
| 46112  | 46212                      | 46312                   |
| 46122  | 46216                      | 46316                   |
| 46152  | 46232                      | 46342                   |
| 46156  | 46236                      | 46346                   |

## SHANK $\phi 3.0$

### 12 pcs./pack Abrasive Rubber Point Assortment Set



| 47905  |                       |                            |
|--|-----------------------|----------------------------|
| Set (12 pieces) (Each code No. one piece-pack) |                       |                            |
| Power Polisher (#180)                          | Green Polisher (#150) | High Shine Polisher (#320) |
| 46623  | 46741                 | 46803                      |
| 46633  | 46751                 | 46813                      |
| 46643  | 46761                 | 46823                      |
| 46653  | 46771                 | 46833                      |

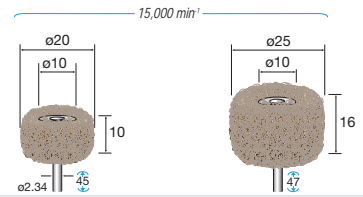
# FLAP WHEELS



Nylon fabric fiber flap wheels.  
Perfect for light polishing.

## SHANK $\phi 2.34$

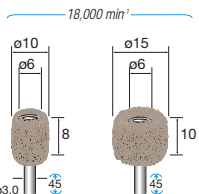
10 pcs./pack



| Grit | Color | 48701 | 48711 |
|------|-------|-------|-------|
| #180 | Brown |       |       |

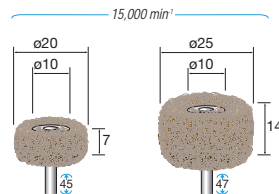
## SHANK $\phi 3.0$

5 pcs./pack    5 pcs./pack



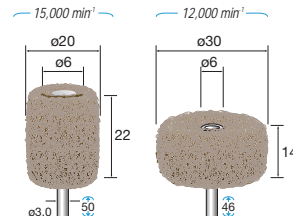
| Grit | Color     | 48681 | 48691 |
|------|-----------|-------|-------|
| #120 | Red Brown |       |       |
| #180 | Brown     |       |       |
| #320 | Red Brown |       |       |
| #400 | Green     |       |       |
| #600 | Gray      |       |       |

10 pcs./pack    10 pcs./pack



| Grit | Color      | 48704 | 48714 |
|------|------------|-------|-------|
| #120 | Dark Brown |       |       |
| #180 | Brown      |       |       |
| #320 | Red Brown  |       |       |
| #400 | Green      |       |       |
| #600 | Beige      |       |       |

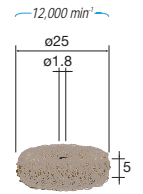
3 pcs./pack



| Grit | Color     | 48724 | 48731 |
|------|-----------|-------|-------|
| #120 | Red Brown |       |       |
| #180 | Brown     |       |       |
| #320 | Red Brown |       |       |
| #400 | Green     |       |       |
| #600 | Gray      |       |       |

10 pcs./pack

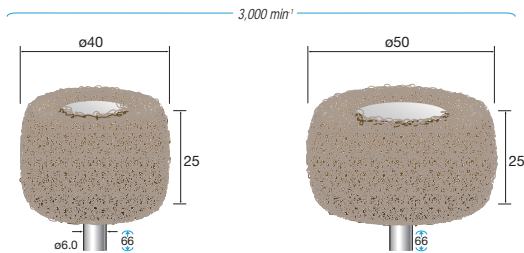
\*Use after attaching to mandrel P29.  
\*Mandrel needs to be purchased separately.



| Grit | Color     | 48736 |
|------|-----------|-------|
| #120 | Red Brown |       |
| #180 | Brown     |       |
| #320 | Red Brown |       |
| #400 | Green     |       |
| #600 | Gray      |       |

## SHANK $\phi 6.0$

3 pcs./pack



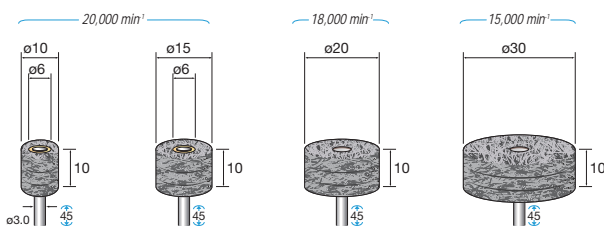
| Grit | Color     | 48744 | 48754 |
|------|-----------|-------|-------|
| #120 | Red Brown |       |       |
| #180 | Brown     |       |       |
| #320 | Red Brown |       |       |



Soft, sander made of non-woven polyester fabric. High quality, strong fibers prevent loading and are ideal for light polishing.

## SHANK $\phi 3.0$

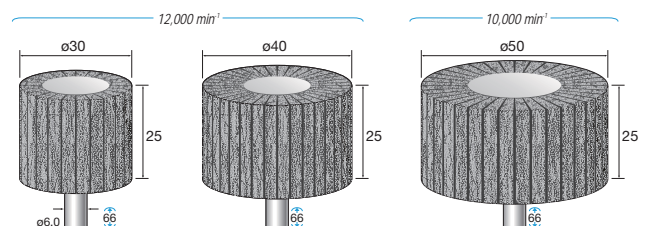
3 pcs./pack    ⚠ Need to be used dry. (Do not use water or grinding solution)



| Grit | 48783 | 48793 | 48803 | 48813 |
|------|-------|-------|-------|-------|
| #120 |       |       |       |       |
| #240 |       |       |       |       |
| #400 |       |       |       |       |
| #600 |       |       |       |       |

## SHANK $\phi 6.0$

3 pcs./pack    ⚠ Need to be used dry. (Do not use water or grinding solution)



| Grit | 48823 | 48833 | 48843 |
|------|-------|-------|-------|
| #120 |       |       |       |
| #240 |       |       |       |
| #400 |       |       |       |
| #600 |       |       |       |

# FLAP WHEELS



Nylon fabric polishing tools. High quality fibers are highly resistant to loading and very flexible for polishing irregular shapes.

Assorted Set

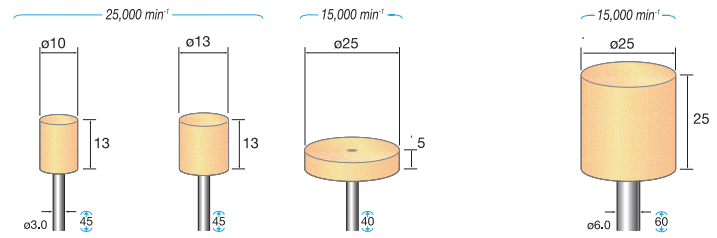
**48889**  
Set (7 pieces)  
(48881-48887)

**48899**  
Set (7 pieces)  
(48891-48897)

**SHANK  $\phi$ 3.0.6.0**

10 pcs./pack

5 pcs./pack



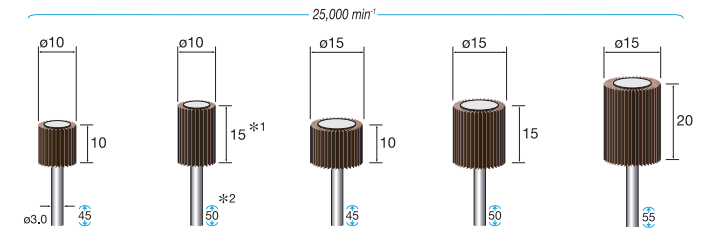
| Grit  | Color  | 48871 | 48881 | 48891 | 48931 |
|-------|--------|-------|-------|-------|-------|
| #120  | Gray   | 48871 | 48881 | 48891 | 48931 |
| #240  | Purple | 48872 | 48882 | 48892 | 48932 |
| #320  | Red    | 48873 | 48883 | 48893 | 48933 |
| #600  | Blue   | 48874 | 48884 | 48894 | 48934 |
| #800  | Violet | 48875 | 48885 | 48895 | 48935 |
| #1000 | Orange | 48876 | 48886 | 48896 | 48936 |
| #1500 | Yellow | 48877 | 48887 | 48897 | 48937 |



Flap wheels are made from many tightly, evenly packed abrasive cloth affixed to steel mandrels. They are highly effective for finishing of irregular shapes and flat surfaces.

**SHANK  $\phi$ 3.0**

5 pcs./pack

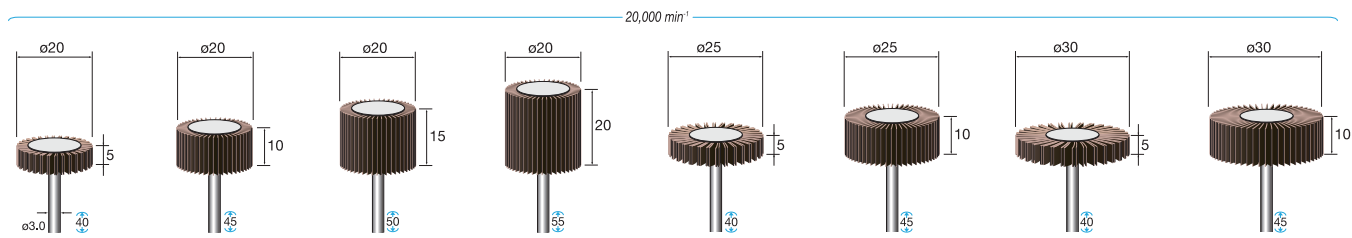


| Grit | 49101 | 49111      | 49121 | 49222 | 49131 |
|------|-------|------------|-------|-------|-------|
| #60  | 49101 | *1*2 49111 | 49121 | —     | 49131 |
| #80  | 49102 | 49112      | 49122 | 49222 | 49132 |
| #120 | 49103 | *1*2 49113 | 49123 | —     | 49133 |
| #150 | 49104 | 49114      | 49124 | 49224 | 49134 |
| #240 | 49105 | 49115      | 49125 | 49225 | 49135 |
| #320 | 49106 | 49116      | 49126 | 49226 | 49136 |
| #600 | 49107 | *1*2 49117 | 49127 | —     | 49137 |

\*1: 49111, 49113, 49117 is Head Length 20mm.  
\*2: 49111, 49113, 49117 is Total Length 55mm.

**SHANK  $\phi$ 3.0**

5 pcs./pack



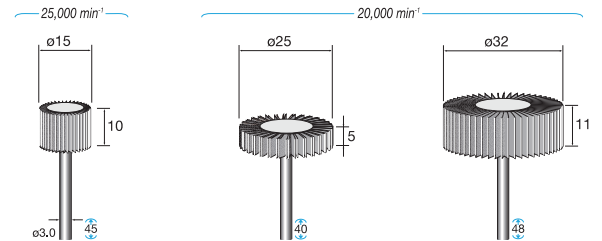
| Grit | 49141 | 49151 | 49232 | 49161 | 49171 | 49181 | 49191 | 49201 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| #60  | 49141 | 49151 | 49232 | 49161 | 49171 | 49181 | 49191 | 49201 |
| #80  | 49142 | 49152 | 49232 | 49162 | 49172 | 49182 | 49192 | 49202 |
| #120 | 49143 | 49153 | —     | 49163 | 49173 | 49183 | 49193 | 49203 |
| #150 | 49144 | 49154 | 49234 | 49164 | 49174 | 49184 | 49194 | 49204 |
| #240 | 49145 | 49155 | 49235 | 49165 | 49175 | 49185 | 49195 | 49205 |
| #320 | 49146 | 49156 | 49236 | 49166 | 49176 | 49186 | 49196 | 49206 |
| #600 | 49147 | 49157 | —     | 49167 | 49177 | 49187 | 49197 | 49207 |

# FLAP WHEELS



Diamond flap wheel made of electroplate diamond abrasive cloths. Perfect for polishing ceramics, glass, FRP, super hard alloys, etc.

**SHANK  $\phi$ 3.0**  
1 pc./pack



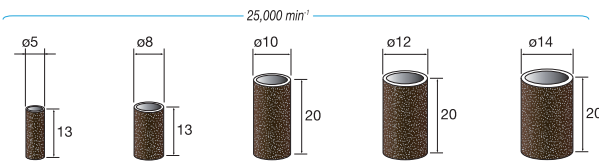
| Grit | 25,000 min <sup>-1</sup> | 20,000 min <sup>-1</sup> | 20,000 min <sup>-1</sup> |
|------|--------------------------|--------------------------|--------------------------|
| #120 | 49303                    | 49313                    | 49323                    |
| #180 | 49304                    | 49314                    | 49324                    |
| #240 | 49305                    | 49315                    | 49325                    |
| #400 | 49306                    | 49316                    | 49326                    |
| #600 | 49307                    | 49317                    | 49327                    |

**SHANK  $\phi$ 3.0**



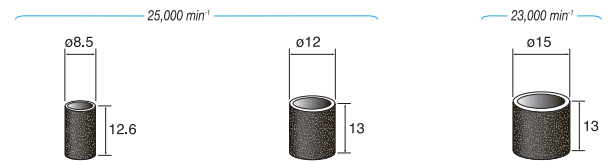
Seamless abrasive cartridges are easily pushed onto a rubber holder and can be quickly changed. They are ideal for finishing wide open areas.

**20 pcs./pack Cartridge (Seamless Abrasives)**



| Grit | 25,000 min <sup>-1</sup> | 25,000 min <sup>-1</sup> | 25,000 min <sup>-1</sup> | 25,000 min <sup>-1</sup> | 25,000 min <sup>-1</sup> |
|------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| #80  | 49401                    | 49411                    | 49421                    | 49431                    | 49441                    |
| #120 | 49402                    | 49412                    | 49422                    | 49432                    | 49442                    |
| #180 | 49403                    | 49413                    | 49423                    | 49433                    | 49443                    |
| #240 | 49404                    | 49414                    | 49424                    | 49434                    | 49444                    |
| #320 | 49405                    | 49415                    | 49425                    | 49435                    | 49445                    |
| #400 | 49406                    | 49416                    | 49426                    | 49436                    | 49446                    |
| #600 | 49407                    | 49417                    | 49427                    | 49437                    | 49447                    |

**200 pcs./pack Cartridge (Seamless Abrasives)**

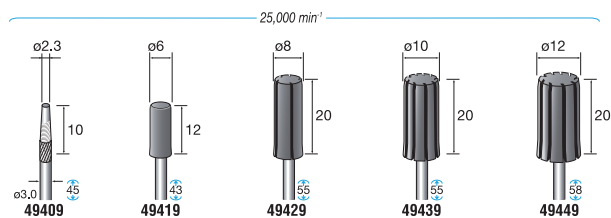


| Grit | 25,000 min <sup>-1</sup> | 23,000 min <sup>-1</sup> | 23,000 min <sup>-1</sup> |
|------|--------------------------|--------------------------|--------------------------|
| #80  | 49461                    | 49471                    | 49481                    |
| #120 | 49462                    | 49472                    | —                        |
| #180 | 49463                    | 49473                    | 49483                    |

**3 pcs./pack Cartridge Seamless Abrasives (Screw Type Special Rubber Holder)**



**3 pcs./pack Cartridge Seamless Abrasives (Special Rubber Holder)**



(49409 is made from metal)

# FLAP WHEELS

SHANK  $\phi 3.0$



Seamless cap abrasives are easily pushed onto a rubber holder and can be quickly changed. Both the sides and ends can be used for polishing and finishing.

## 20 pcs./pack Cap (Seamless Abrasives)

|      | 40,000 min <sup>-1</sup> | 30,000 min <sup>-1</sup> | 16,000 min <sup>-1</sup> | 12,000 min <sup>-1</sup> | 40,000 min <sup>-1</sup> | 30,000 min <sup>-1</sup> | 20,000 min <sup>-1</sup> | 16,000 min <sup>-1</sup> | 12,000 min <sup>-1</sup> | 40,000 min <sup>-1</sup> | 30,000 min <sup>-1</sup> | 20,000 min <sup>-1</sup> | 16,000 min <sup>-1</sup> | 12,000 min <sup>-1</sup> |
|------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|      | $\phi 7$                 | $\phi 9$                 | $\phi 15$                | $\phi 18$                | $\phi 7$                 | $\phi 9$                 | $\phi 12$                | $\phi 15$                | $\phi 18$                | $\phi 7$                 | $\phi 9$                 | $\phi 12$                | $\phi 15$                | $\phi 18$                |
|      | 12                       | 14                       | 19                       | 27                       | 12                       | 14                       | 16                       | 20                       | 26                       | 10                       | 12                       | 15                       | 18                       | 26                       |
| Grit |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| #60  | —                        | 49511                    | 49531                    | 49541                    | 49551                    | 49561                    | 49571                    | 49581                    | 49591                    | 49601                    | —                        | —                        | 49631                    | 49641                    |
| #150 | 49502                    | —                        | 49532                    | 49542                    | 49552                    | 49562                    | 49572                    | 49582                    | 49592                    | 49602                    | 49612                    | 49622                    | 49632                    | 49642                    |
| #320 | 49503                    | 49513                    | 49533                    | 49543                    | 49553                    | 49563                    | 49573                    | 49583                    | 49593                    | 49603                    | 49613                    | 49623                    | 49633                    | 49643                    |



## 3 pcs./pack Cap Seamless Abrasives (Special Rubber Holder)

|  | 40,000 min <sup>-1</sup> | 30,000 min <sup>-1</sup> | 20,000 min <sup>-1</sup> | 40,000 min <sup>-1</sup> | 30,000 min <sup>-1</sup> | 40,000 min <sup>-1</sup> | 30,000 min <sup>-1</sup> | 20,000 min <sup>-1</sup> |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|  | $\phi 5$                 | $\phi 7$                 | $\phi 10$                | $\phi 5$                 | $\phi 7$                 | $\phi 5$                 | $\phi 7$                 | $\phi 10$                |
|  | 11                       | 13                       | 15                       | 11                       | 13                       | 10                       | 12                       | 15                       |
|  | $\phi 3.0$               | $\phi 3.7$               | $\phi 3.9$               | $\phi 3.6$               | $\phi 3.8$               | $\phi 3.7$               | $\phi 3.8$               | $\phi 4.0$               |
|  | 49505                    | 49515                    | 49525                    | 49555                    | 49565                    | 49605                    | 49615                    | 49625                    |

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools



# POLISHING BRUSHES

## Selection and Use of Polishing Brushes

### ◆ Selection of Brush Materials :

Brushes should be selected according to the desired finish.

### ◆ Length and Diameter of Wire :

Longer brush wires are very flexible and best suited to polishing. Shorter brush wires are suited to heavier cutting. Before using, cut the brush wires to the required length.

### ◆ Density of Wire Material :

Higher density wires cut quicker due to their greater rigidity.

### ◆ Brushing Pressure :

Using the edge of the applied perpendicular brush to the polishing surface is the most effective method. Use pressure sufficient to deflect the brush tips 1 to 2 mm.

### ◆ Rotation Direction of Brush :

Set rotation direction of the micro-grinder considering the lay of the bristles. (Nakanishi micro-grinders can rotate in either direction)

### ◆ Suitable Brush Rotation Speed :

Using brushes at less than the maximum allowable speed makes the brush last longer. Confirm suitable rotation speed by test brushing a small area at first.

### ◆ Features of Polishing Brushes :

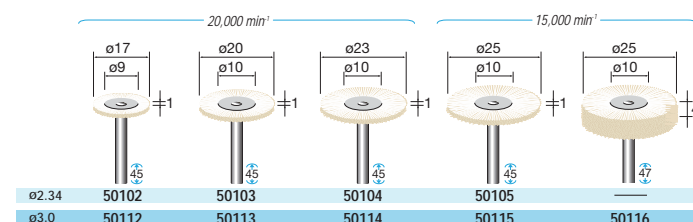
The brushes conform to the polishing surface and result in uniform surface finishes. Brushes are superior tools for finishing compared to other tools.



Polishing brushes with  $\phi 2.34$  mm and  $\phi 3.0$  mm shanks. They are made from bristle, goat and horse hair.

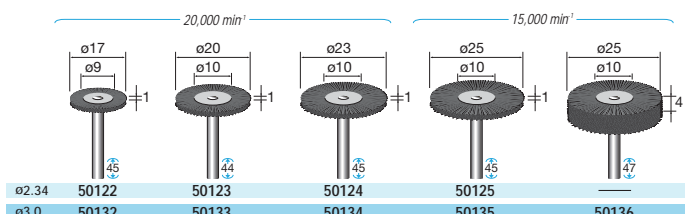
### SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack Hard Type • Hardness : Hard • Color : White • Material : Bristle

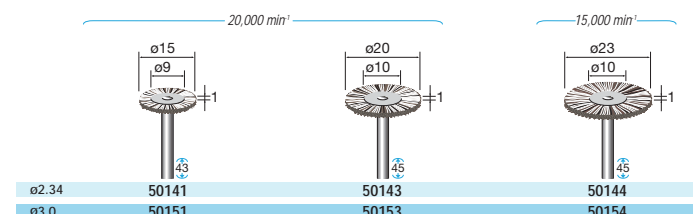


### SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack Hard Type • Hardness : Hard • Color : Black • Material : Bristle

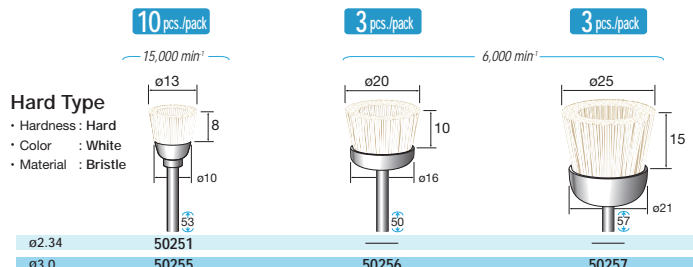
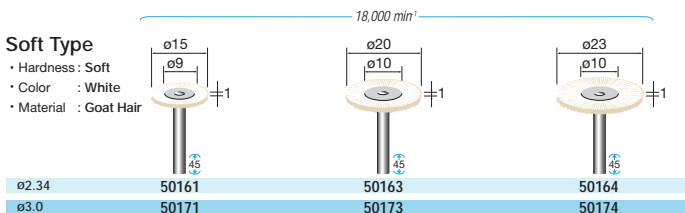


10 pcs./pack Medium Type • Hardness : Medium • Color : Brown • Material : Horse Hair



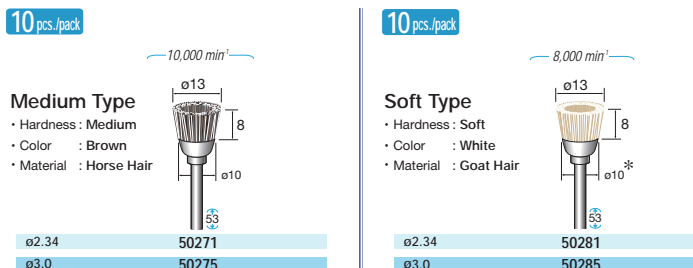
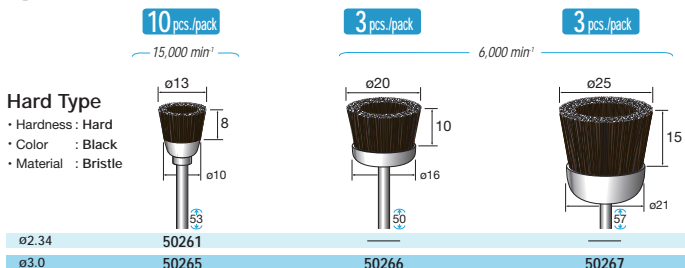
### SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack Soft Type  
• Hardness : Soft  
• Color : White  
• Material : Goat Hair



### SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack Hard Type  
• Hardness : Hard  
• Color : Black  
• Material : Bristle



\* 50285 is diameter  $\phi 11$ .

\*Order in standard package quantities.

Diamond / CAN  
Carbide Cutters  
Specialty Tools  
Mounted Points  
Rubberized Abrasives  
Flap Wheels  
Polishing Brushes  
Felt Bobs  
Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools

# POLISHING BRUSHES

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

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Felt Bobs

Abrasive Compounds & Polishing Tools

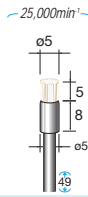
NSK Exclusive Tools

**SHANK**  $\phi 2.34, \phi 3.0$

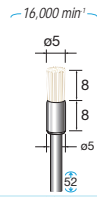
10 pcs./pack

**Hard Type**

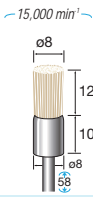
- Hardness : Hard
- Color : White
- Material : Bristle



$\phi 2.34$  **50311**  
 $\phi 3.0$  **50315**



$\phi 2.34$  **50312**  
 $\phi 3.0$  **50316**

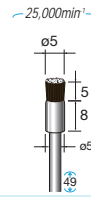


$\phi 2.34$  **50317**  
 $\phi 3.0$  **50317**

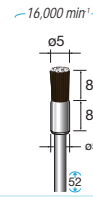
10 pcs./pack

**Hard Type**

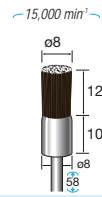
- Hardness : Hard
- Color : Black
- Material : Bristle



$\phi 2.34$  **50321**  
 $\phi 3.0$  **50325**



$\phi 2.34$  **50322**  
 $\phi 3.0$  **50326**



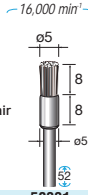
$\phi 2.34$  **50327**  
 $\phi 3.0$  **50327**

**SHANK**  $\phi 2.34, \phi 3.0$

10 pcs./pack

**Medium Type**

- Hardness : Medium
- Color : Brown
- Material : Horse Hair

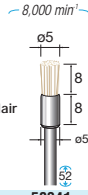


$\phi 2.34$  **50331**  
 $\phi 3.0$  **50335**

10 pcs./pack

**Soft Type**

- Hardness : Soft
- Color : White
- Material : Goat Hair



$\phi 2.34$  **50341**  
 $\phi 3.0$  **50345**

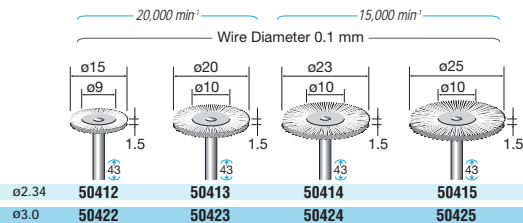


Wire Brushes are made from stainless, steel and brass wires. Ideal for light burr and rust removal, and fine finishing.

**SHANK**  $\phi 2.34, \phi 3.0$

**Stainless**

10 pcs./pack

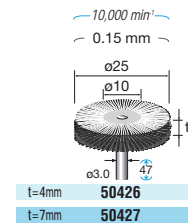


$\phi 2.34$  **50412** **50413** **50414** **50415**  
 $\phi 3.0$  **50422** **50423** **50424** **50425**

**SHANK**  $\phi 3.0$

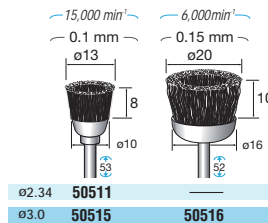
**Stainless**

5 pcs./pack



$t=4\text{mm}$  **50426**  
 $t=7\text{mm}$  **50427**

10 pcs./pack

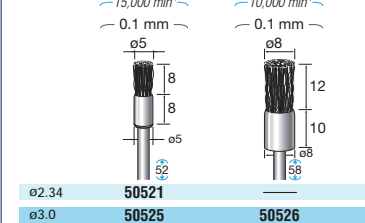


$\phi 2.34$  **50511**  
 $\phi 3.0$  **50515** **50516**

**SHANK**  $\phi 2.34, \phi 3.0$

**Stainless**

10 pcs./pack

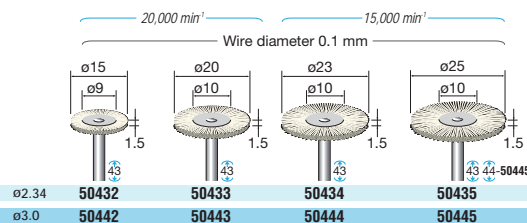


$\phi 2.34$  **50521**  
 $\phi 3.0$  **50525** **50526**

**SHANK**  $\phi 2.34, \phi 3.0$

**Steel**

10 pcs./pack

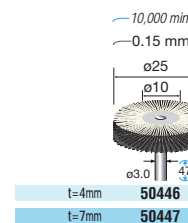


$\phi 2.34$  **50432** **50433** **50434** **50435**  
 $\phi 3.0$  **50442** **50443** **50444** **50445**

**SHANK**  $\phi 3.0$

**Steel**

5 pcs./pack



$t=4\text{mm}$  **50446**  
 $t=7\text{mm}$  **50447**

**SHANK**  $\phi 2.34, \phi 3.0$

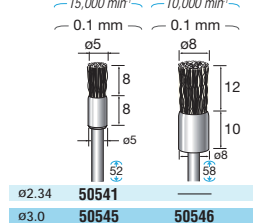
**Steel**

10 pcs./pack



$\phi 2.34$  **50531**  
 $\phi 3.0$  **50535** **50536**

10 pcs./pack

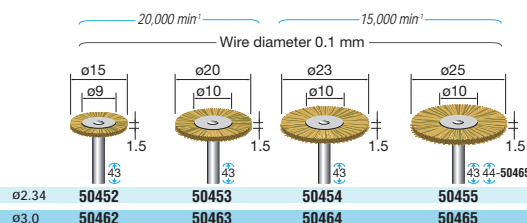


$\phi 2.34$  **50541**  
 $\phi 3.0$  **50545** **50546**

**SHANK**  $\phi 2.34, \phi 3.0$

**Brass**

10 pcs./pack

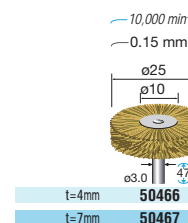


$\phi 2.34$  **50452** **50453** **50454** **50455**  
 $\phi 3.0$  **50462** **50463** **50464** **50465**

**SHANK**  $\phi 3.0$

**Brass**

5 pcs./pack

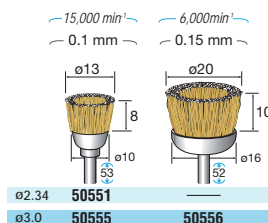


$t=4\text{mm}$  **50466**  
 $t=7\text{mm}$  **50467**

**SHANK**  $\phi 2.34, \phi 3.0$

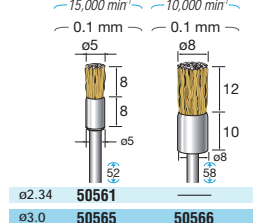
**Brass**

10 pcs./pack



$\phi 2.34$  **50551**  
 $\phi 3.0$  **50555** **50556**

10 pcs./pack



$\phi 2.34$  **50561**  
 $\phi 3.0$  **50565** **50566**

# POLISHING BRUSHES



Nylon brushes are ideal for polishing medical, scientific, chemical and electronic components and devices. They are highly flexible and have superior wear resistance.



**Nylon Brush**  
Wire diameter [0,2 mm]



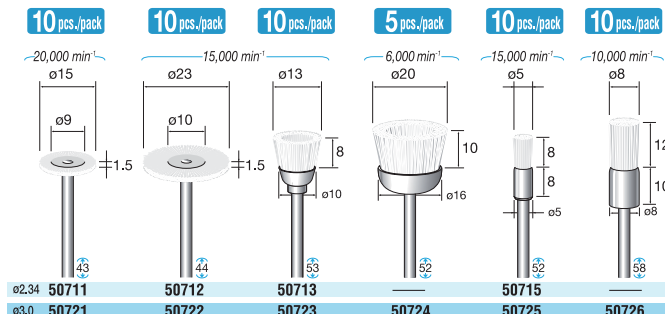
**Heatproof Nylon Brush**  
Wire diameter [0,2 mm]



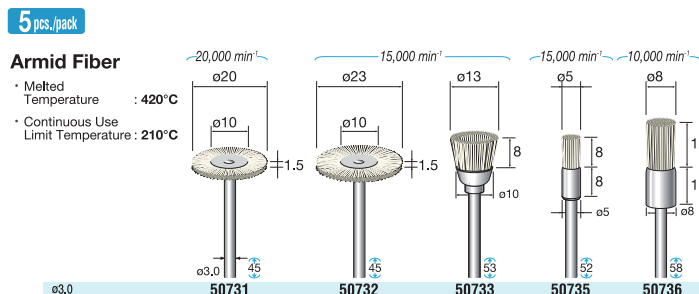
**Nylon Brush**  
contained proof material against static electricity  
Wire diameter [0,15 mm]

**SHANK**  $\phi 2.34, \phi 3.0$

**Nylon Brush** Wire diameter [0,2 mm]

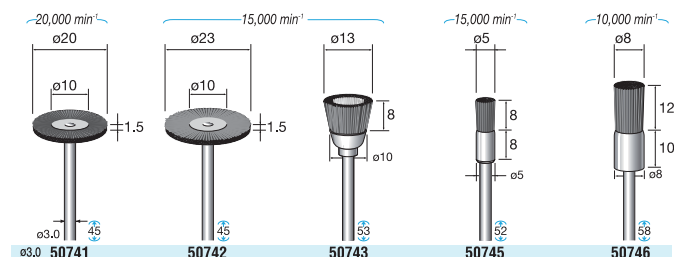


**Heatproof Nylon Brush** Wire diameter [0,2 mm]



**SHANK**  $\phi 3.0$

**5 pcs./pack Nylon Brush** contained proof material against static electricity Wire diameter [0,15 mm]



Abrasive and diamond impregnated nylon brushes. Ideal for fine burr removal and polishing of very small areas.



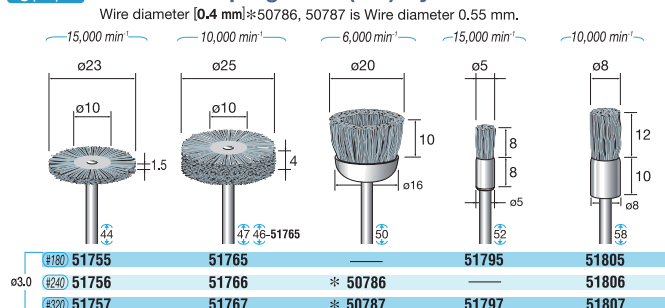
**Abrasive Impregnated (GC) Nylon Brush**  
Wire diameter [0,2-0,5 mm]



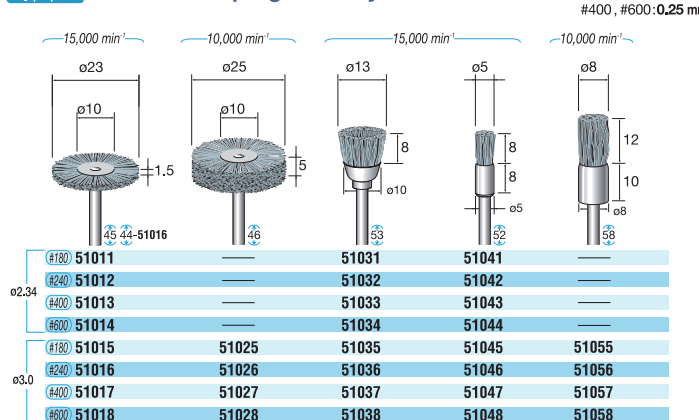
**Diamond Impregnated Nylon Brush**  
Wire diameter [0,2-0,5 mm]

**SHANK**  $\phi 2.34, \phi 3.0$

**5 pcs./pack Abrasive Impregnated (GC) Nylon Brush**



**1 pc./pack Diamond Impregnated Nylon Brush** Wire diameter [#180, #240:0,4 mm #400, #600:0,25 mm]



\*Order in standard package quantities.

Diamond / CBN  
Carbide Cutters  
Specialty Tools  
Mounted Points  
Rubberized Abrasives  
Flap Wheels  
Polishing Brushes  
Felt Bobs  
Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools

# INSIDE POLISHING BRUSHES



Inside diameter brushes are made from wire fixed to a straight shank. Ideal for polishing internal surfaces, ID threads and curved surfaces.

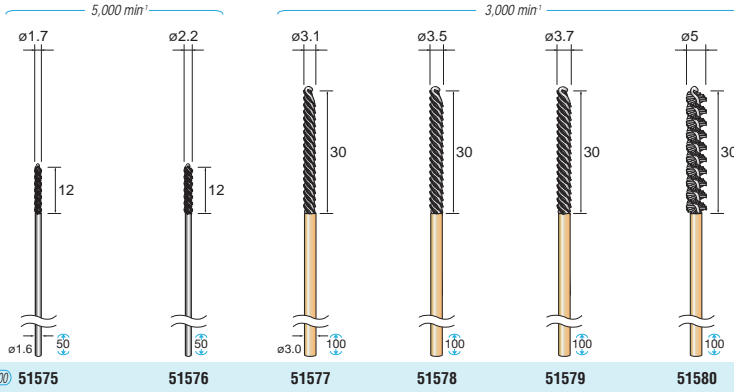


- Abrasive Impregnated Nylon Brush
- Bristle Brush
- Wire Brush

⚠ Do not exceed the maximum rotating speed. Long length brushes are highly susceptible to shank and brush deflection.

**SHANK**  $\phi 1.6, \phi 3.0$

2 pcs./pack



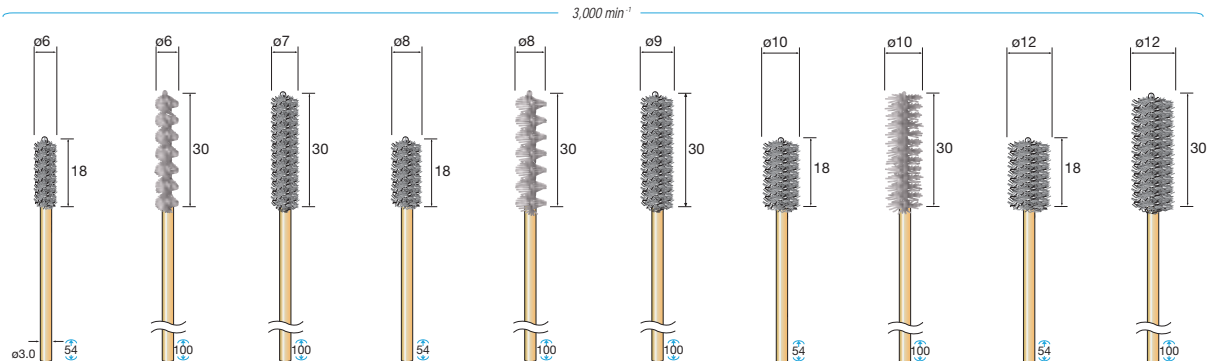
Brush Materials

Abrasive Impregnated Nylon Brush (GC)

|      |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|
| #600 | 51575 | 51576 | 51577 | 51578 | 51579 | 51580 |
|------|-------|-------|-------|-------|-------|-------|

**SHANK**  $\phi 3.0$

1 pc./pack



Brush Materials

Abrasive Impregnated Nylon Brush (GC)

Abrasive Impregnated Nylon Brush (GC)

Bristle Brush (Quality: Bristle / Hard / Black)

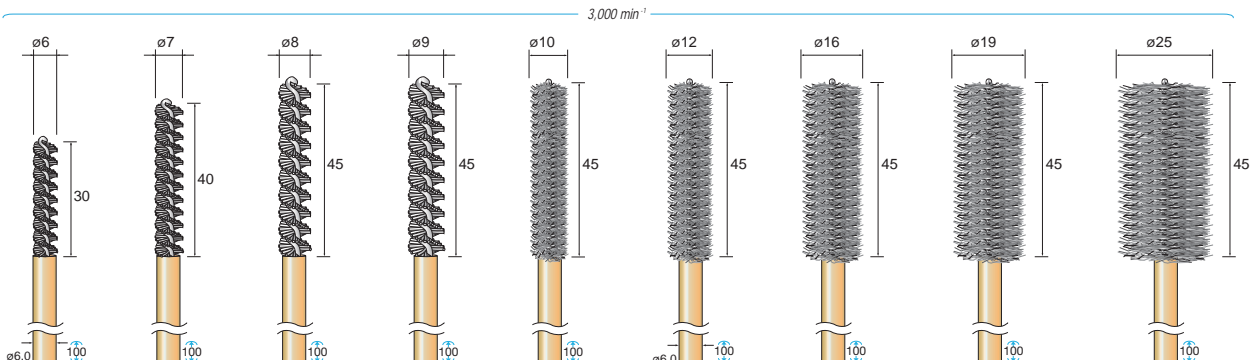
Wire Brush (Stainless Wire: Wire Diameter 0.1 mm)

Wire Brush (Stainless Wire: Wire Diameter 0.15 mm)

|      |       |       |       |
|------|-------|-------|-------|
| #320 | 51581 | 51582 | 51583 |
| #600 | 51586 | 51587 | 51588 |
|      | 51601 | 51602 | 51603 |
|      | 51641 | 51621 | 51626 |
|      | 51642 | 51622 | 51627 |
|      | 51643 | 51623 | 51644 |
|      | 51628 | 51631 | 51632 |
|      | 51633 | 51634 | 51635 |
|      | 51636 | 51637 | 51638 |
|      | 51639 | 51640 |       |

**SHANK**  $\phi 6.0$

1 pc./pack



Brush Materials

Abrasive Impregnated Nylon Brush (GC)

Wire Brush (Stainless Wire)

|      |                        |      |                        |      |                        |      |                        |      |                        |      |                        |      |                        |      |                        |      |                        |
|------|------------------------|------|------------------------|------|------------------------|------|------------------------|------|------------------------|------|------------------------|------|------------------------|------|------------------------|------|------------------------|
| #500 | 51591                  | #120 | 51592                  | #120 | 51593                  | #120 | 51594                  | #120 | 51595                  | #120 | 51596                  | #120 | 51597                  | #120 | 51598                  | #120 | 51599                  |
|      | (Wire Diameter 0.3mm)  |      | (Wire Diameter 0.55mm) |      | (Wire Diameter 0.55mm) |      | (Wire Diameter 0.35mm) |      | (Wire Diameter 0.55mm) |      | (Wire Diameter 0.55mm) |      | (Wire Diameter 0.55mm) |      | (Wire Diameter 0.55mm) |      | (Wire Diameter 0.55mm) |
|      | 51611                  |      | 51612                  |      | 51613                  |      | 51614                  |      | 51615                  |      | 51616                  |      | 51617                  |      | 51618                  |      | 51619                  |
|      | (Wire Diameter 0.08mm) |      | (Wire Diameter 0.1mm)  |      | (Wire Diameter 0.1mm)  |      | (Wire Diameter 0.1mm)  |      | (Wire Diameter 0.15mm) |      | (Wire Diameter 0.15mm) |      | (Wire Diameter 0.15mm) |      | (Wire Diameter 0.15mm) |      | (Wire Diameter 0.15mm) |

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

## WIRE LAPPING TOOLS



Wire lapping tools are made from banded piano wire. Ideal for burr removal and finishing of metals and plastics. They are also suited to polishing with abrasive compounds.

⚠ Do not exceed the maximum rotating speed. Long length brushes are highly susceptible to shank and brush deflection.

SHANK  $\varnothing 2.34, \varnothing 3.0$

1 pc./pack

|  |                    | 10,000 min <sup>-1</sup> |                 |                 |                 |
|--|--------------------|--------------------------|-----------------|-----------------|-----------------|
|  |                    | 2 Wires                  | 4 Wires         | 6 Wires         | 12 Wires        |
|  | $\varnothing 4$    | $\varnothing 4$          | $\varnothing 4$ | $\varnothing 4$ | $\varnothing 4$ |
|  | 30                 | 30                       | 30              | 30              | 30              |
|  | $\varnothing 2.34$ |                          | 51651           | 51652           | 51653           |
|  | $\varnothing 3.0$  | 51660                    | 51661           | 51662           | 51663           |

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools



**FELT BOBS**



Felt bobs are made from 100% high quality wool. They are designed for superior finishing with abrasive compounds or with their embedded abrasives.

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

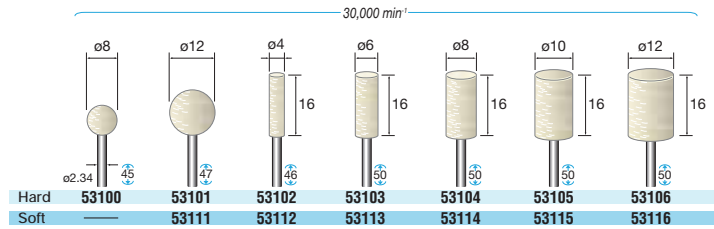
Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools  
NSK Exclusive Tools

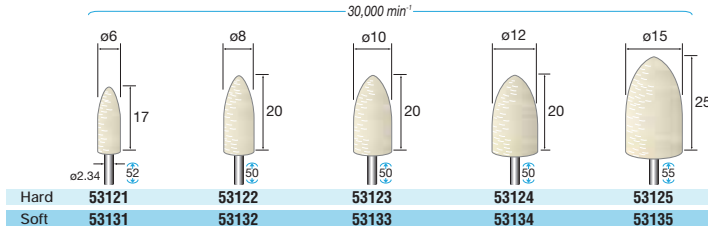
**SHANK  $\phi 2.34$**

10 pcs./pack

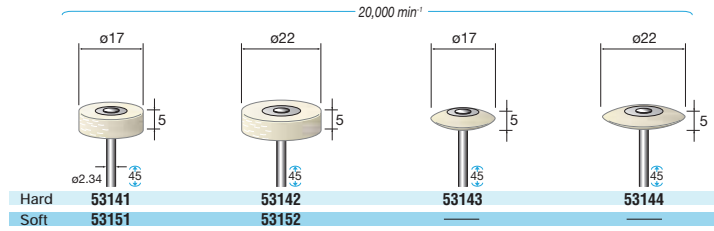


**SHANK  $\phi 2.34$**

10 pcs./pack



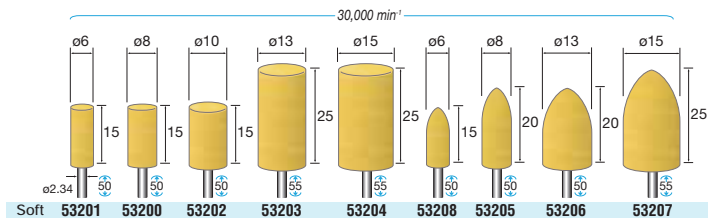
10 pcs./pack



**SHANK  $\phi 2.34$**

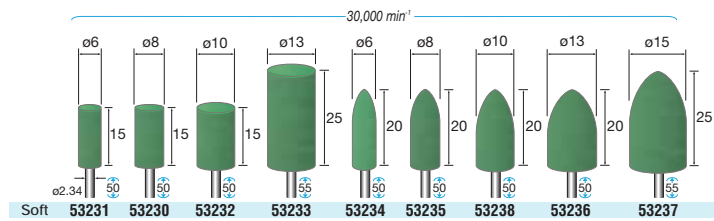
10 pcs./pack

**Yellow Polishing Felt Bobs WA (Alumina) Embedded Type**



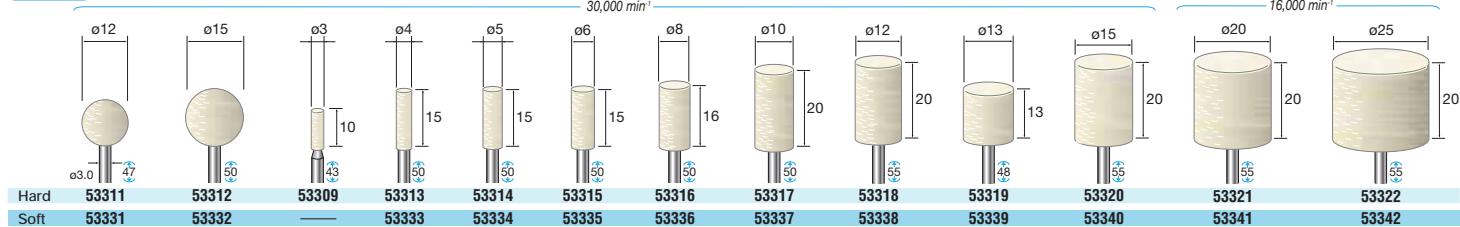
10 pcs./pack

**Green Polishing Felt Bobs Chromium Oxide (Blue Rouge) Embedded Type**



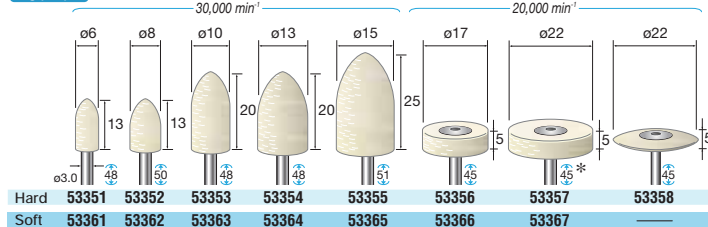
**SHANK  $\phi 3.0$**

10 pcs./pack

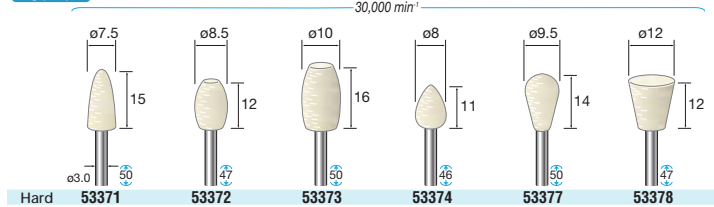


**SHANK  $\phi 3.0$**

10 pcs./pack



10 pcs./pack

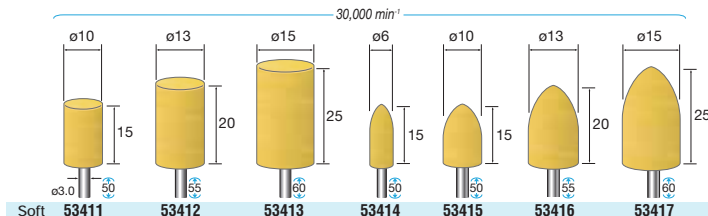


\*53367 is Total Length 44mm.

**SHANK  $\phi 3.0$**

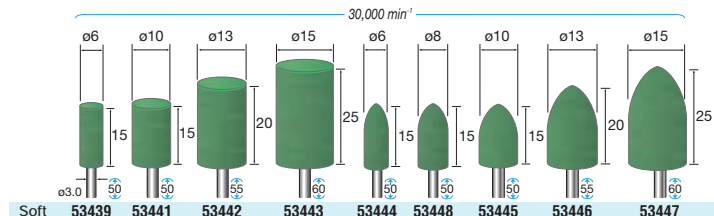
10 pcs./pack

**Yellow Polishing Felt Bobs WA (Alumina) Embedded Type**



10 pcs./pack

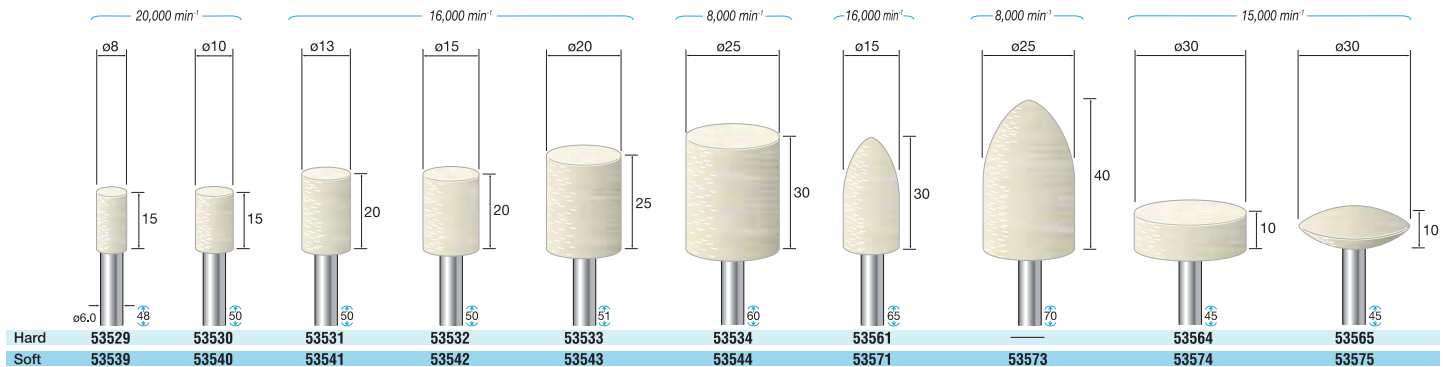
**Green Polishing Felt Bobs Chromium Oxide (Blue Rouge) Embedded Type**



# FELT BOBS

SHANK  $\phi 6.0$

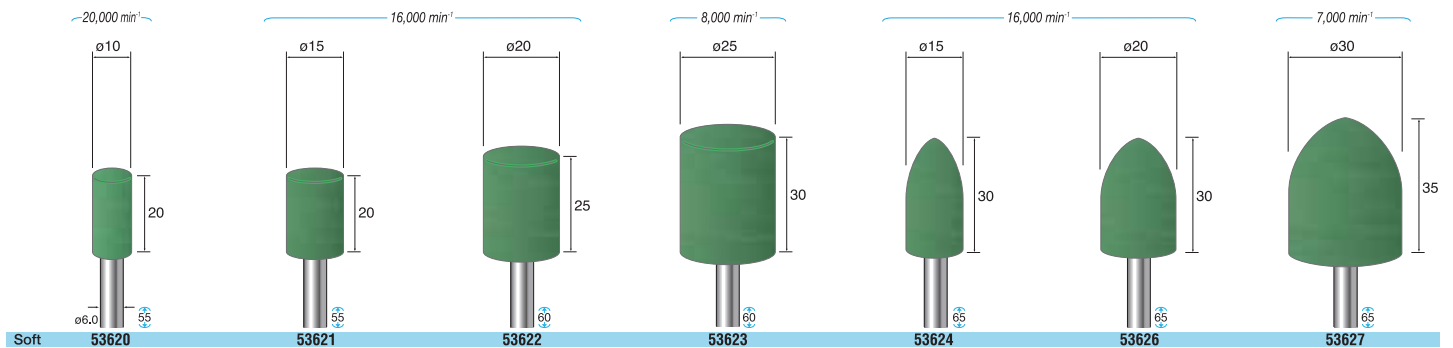
5 pcs./pack



SHANK  $\phi 6.0$

5 pcs./pack

Green Polishing Felt Bobs Chormium Oxide (Blue Rouge) Embedded Type.

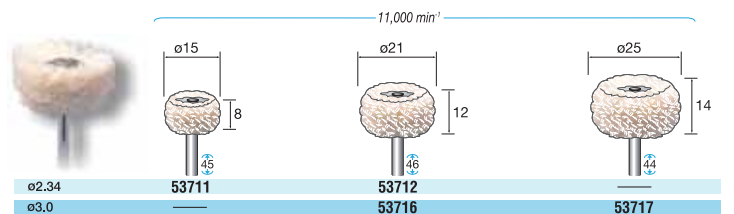


Cotton polishing bobs are made for soft polishing. They are well suited to a wide variety of materials.

SHANK  $\phi 2.34, \phi 3.0$

10 pcs./pack

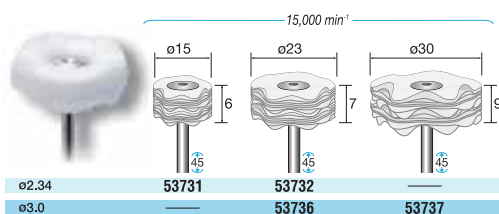
Cotton Thread Bobs



SHANK  $\phi 2.34, \phi 3.0$

10 pcs./pack

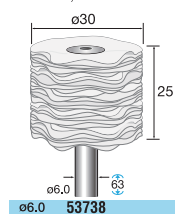
Cloth Bobs



SHANK  $\phi 6.0$

5 pcs./pack

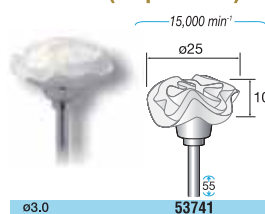
Cloth Bobs (Cup Model)



SHANK  $\phi 3.0$

10 pcs./pack

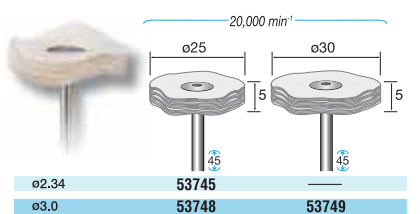
Cloth Bobs (Cup Model)



SHANK  $\phi 2.34, \phi 3.0$

10 pcs./pack

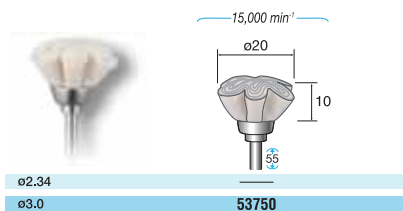
Soft Cotton Bobs



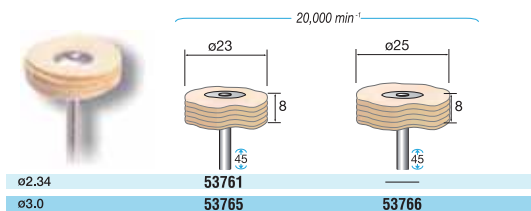
SHANK  $\phi 2.34, \phi 3.0$

10 pcs./pack

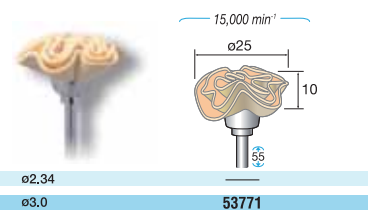
Soft Cotton Bobs (Cup Model)



10 pcs./pack Chamois Skin Bobs



10 pcs./pack Chamois Skin Bobs (Cup Model)



**FELT BOBS**

**SHANK  $\phi 2.34, \phi 3.0$**

**5 pcs./pack Cotton Bobs**

Technical drawings of Cotton Bobs. Two sizes are shown:  $\phi 25$  (RPM range 15,000 min<sup>-1</sup>) and  $\phi 30$  (RPM range 13,000 min<sup>-1</sup>). Each bob has a thickness of 5mm and a 45-degree chamfered edge. The shank diameter is  $\phi 2.34$  or  $\phi 3.0$ .

|             |              |              |
|-------------|--------------|--------------|
| $\phi 2.34$ | <b>53782</b> | <b>53783</b> |
| $\phi 3.0$  | <b>53787</b> | <b>53788</b> |

**3 pcs./pack**

Technical drawing of a Cotton Bob with diameter  $\phi 30$ , height 23mm, and a 45-degree chamfered edge. The shank diameter is  $\phi 6.0$  with a 62-degree chamfer.

**53790**

**5 pcs./pack**

**Dark Brown Cotton Bobs**

For metal semi-finishing.  
Using polishing materials.

Technical drawings of Dark Brown Cotton Bobs. Two sizes are shown:  $\phi 25$  (RPM range 15,000 min<sup>-1</sup>) and  $\phi 30$  (RPM range 13,000 min<sup>-1</sup>). Each bob has a thickness of 5mm and a 45-degree chamfered edge. The shank diameter is  $\phi 2.34$  or  $\phi 3.0$ .

|             |              |              |
|-------------|--------------|--------------|
| $\phi 2.34$ | <b>53792</b> | <b>53793</b> |
| $\phi 3.0$  | <b>53797</b> | <b>53798</b> |

**SHANK  $\phi 2.34, \phi 3.0$**

**5 pcs./pack Sisal Bobs**

Technical drawings of Sisal Bobs. Two sizes are shown:  $\phi 25$  (RPM range 15,000 min<sup>-1</sup>) and  $\phi 30$  (RPM range 12,000 min<sup>-1</sup>). Each bob has a thickness of 5mm and a 45-degree chamfered edge. The shank diameter is  $\phi 2.34$  or  $\phi 3.0$ .

|             |              |              |
|-------------|--------------|--------------|
| $\phi 2.34$ | <b>53802</b> | <b>53803</b> |
| $\phi 3.0$  | <b>53807</b> | <b>53808</b> |

**3 pcs./pack**

Technical drawing of a Sisal Bob with diameter  $\phi 30$ , height 21mm, and a 45-degree chamfered edge. The shank diameter is  $\phi 6.0$  with a 62-degree chamfer.

**53810**

**SHANK  $\phi 1.3$**

**10 pcs./pack**

Technical drawings of five abrasive wheels. RPM ranges are 20,000 min<sup>-1</sup>, 18,000 min<sup>-1</sup>, and 20,000 min<sup>-1</sup>. Diameters are  $\phi 17$ ,  $\phi 17$ ,  $\phi 22$ ,  $\phi 22$ , and  $\phi 25$ . Thicknesses are 3mm, 5mm, 2mm, 3mm, and 3mm. Shank diameter is  $\phi 1.3$ .

|      |              |              |              |              |              |
|------|--------------|--------------|--------------|--------------|--------------|
| Hard | <b>53901</b> | <b>53902</b> | <b>53903</b> | <b>53904</b> | <b>53921</b> |
| Soft | <b>53911</b> | <b>53912</b> | <b>53913</b> | <b>53914</b> | <b>53925</b> |

\*Use after attaching to mandrel P.29 (No. 37011, 37012, 37015, 37051).  
\*Mandrel needs to be purchased separately.

**SHANK  $\phi 3.0$**

**10 pcs./pack**

Technical drawings of two abrasive wheels. RPM range is 18,000 min<sup>-1</sup>. Diameters are  $\phi 22$  and  $\phi 25$ . Thickness is 5mm. Shank diameter is  $\phi 3$ .

|      |              |              |
|------|--------------|--------------|
| Hard | <b>53907</b> | <b>53923</b> |
| Soft | <b>53917</b> | <b>53927</b> |

\*Use after attaching to mandrel (No. 37052).  
\*Mandrel needs to be purchased separately.

**3 pcs./pack Mandrels**

Technical drawings of three mandrel types. Dimensions include diameters  $\phi 6.3$ ,  $\phi 3.0$ ,  $\phi 8.0$ , and  $\phi 10.0$ , and lengths 10mm, 14mm, and 15mm. Shank diameter is  $\phi 3.0$  with a 45-degree chamfer.

**37062**

**SHANK  $\phi 1.3$**

**10 pcs./pack Knife Edge Type**

Technical drawings of three Knife Edge Type abrasive wheels. RPM ranges are 20,000 min<sup>-1</sup>, 18,000 min<sup>-1</sup>, and 16,000 min<sup>-1</sup>. Diameters are  $\phi 17$ ,  $\phi 22$ , and  $\phi 25$ . Thickness is 5mm. Shank diameter is  $\phi 1.3$ .

|      |              |              |              |
|------|--------------|--------------|--------------|
| Hard | <b>53931</b> | <b>53932</b> | <b>53933</b> |
|------|--------------|--------------|--------------|

\*Use after attaching to mandrel P.29 (No. 37011, 37012, 37015, 37051).  
\*Mandrel needs to be purchased separately.

**SHANK  $\phi 3.0$**

**16 pcs./pack Polishing Piled Bobs Assorted Set**

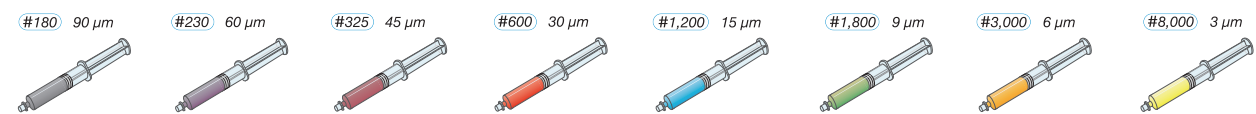


|                                |              |              |              |
|--------------------------------|--------------|--------------|--------------|
| <b>54105</b>                   |              |              |              |
| Set (16 pieces)                |              |              |              |
| (Each code No. one piece-pack) |              |              |              |
| <b>53312</b>                   | <b>53351</b> | <b>53412</b> | <b>53716</b> |
| <b>53316</b>                   | <b>53353</b> | <b>53416</b> | <b>53736</b> |
| <b>53318</b>                   | <b>53355</b> | <b>53442</b> | <b>53741</b> |
| <b>53320</b>                   | <b>53357</b> | <b>53446</b> | <b>53765</b> |

# ABRASIVE COMPOUNDS & POLISHING TOOLS

## 1 pc./pack Diamond Compounds

5 g plastic syring



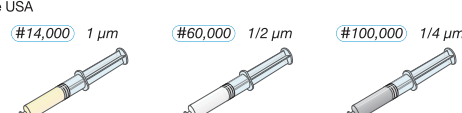
| Standard | Water Soluble | 55101 (Black) | 55102 (Violet) | 55103 (Brown)     | 55104 (Red) | 55106 (Blue) | 55108 (Green) | 55109 (Orange) | 55110 (Yellow) |
|----------|---------------|---------------|----------------|-------------------|-------------|--------------|---------------|----------------|----------------|
|          | Oil-Based     | 55121 (Black) | 55122 (Violet) | 55123 (Brown)     | 55124 (Red) | 55126 (Blue) | 55128 (Green) | 55129 (Orange) | 55130 (Yellow) |
| Heavy    | Oil-Based     |               | 55242 (Violet) | 55243 (Brick-red) | 55244 (Red) | 55246 (Blue) | 55248 (Green) | 55249 (Orange) | 55250 (Yellow) |

The color in the illustration is the standard type.  
 \* The micron grades indicate median range of grain diameters. \* We recommend weak solutions for grinding, polishing, etc.

## 1 pc./pack Diamond Compounds

cf. Country of manufacture USA


5 g plastic syring



| Standard | Water Soluble | 55111 (Ivory) | 55112 (White) |              |
|----------|---------------|---------------|---------------|--------------|
|          | Oil-Based     | 55131 (Ivory) | 55132 (White) | 55133 (Gray) |

The color in the illustration is the standard type.  
 \* The micron grades indicate median range of grain diameters.  
 \* We recommend weak solutions for grinding, polishing, etc.


## 1 pc./pack Diamond Micron Powder



| Micron Range μm (Grit) | 10 Carats | 50 Carats | Micron Range μm (Grit) | 10 Carats | 50 Carats |
|------------------------|-----------|-----------|------------------------|-----------|-----------|
| 80-100 (#200)          | 55301     | 55311     | 6-12 (#1,800)          | 55306     | 55316     |
| 40-60 (#400)           | 55302     | 55312     | 4-6 (#3,000)           | 55307     | 55317     |
| 30-40 (#600)           | 55303     | 55313     | 2-4 (#8,000)           | 55308     | 55318     |
| 20-30 (#800)           | 55304     | 55314     | 0-2 (#14,000)          | 55309     | 55319     |
| 10-20 (#1,200)         | 55305     | 55315     | 0-1 (#28,000)          | 55310     | 55320     |

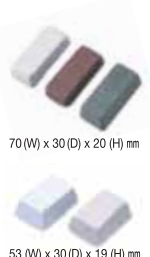
## 1 pc./pack Diamond Compound, Weak Solution

cf. Country of manufacture USA



|               |        |       |
|---------------|--------|-------|
| Water Soluble | 500 cc | 55331 |
| Oil-based     | 500 cc | 55332 |

## 2 pcs./pack Polishing Compound (Solid Type)

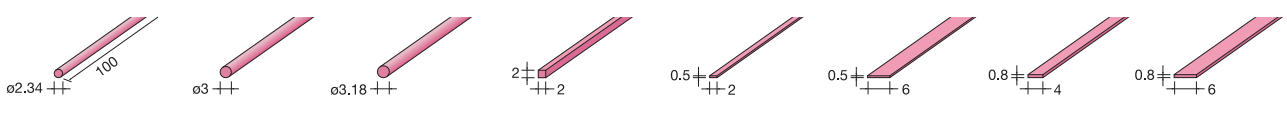


|            |   | Applications   |
|------------|---|--|
| For Metals | Alumina for metal pre-finishing (white rouge) | 55341 ♦ Aluminum, stainless steel, brass, chrome, etc.                         |
|            | Tripoli for metal pre-finishing (red rouge)   | 55342 ♦ Iron, aluminum, etc.   |
|            | Chrome oxide for metal finishing (blue rouge) | 55343 ♦ Precious metals, aluminum, stainless steel, brass, copper alloys, etc. |
| For Resins | For resin pre-finishing (white rouge)         | 55345 ♦ For synthetic resins and coated surfaces                               |
|            | For resin finishing (white rouge)             | 55346 ♦ For synthetic resins and acrylics for coated surfaces                  |



The latest technology in polishing. These stones are very flexible and can be ground to shape. They are very long lasting and will hold the desired shape even after long use.

## 1 pc./pack Ceramic Fiber Grindstone (Total Length 100 mm)



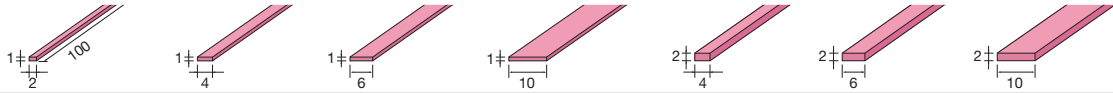
| Grit  | Color  |       |       |       |       |       |       |
|-------|--------|-------|-------|-------|-------|-------|-------|
| #180  | Ivory  | 55514 | —     | 55534 | 55554 | —     | 55584 |
| #300  | Brown  | —     | —     | 55535 | 55555 | —     | 55585 |
| #400  | Orange | 55516 | 55526 | 55536 | 55556 | 55576 | 55586 |
| #600  | Black  | —     | —     | 55537 | 55557 | —     | 55587 |
| #800  | Blue   | —     | —     | 55538 | —     | —     | 55588 |
| #1000 | White  | 55519 | 55529 | 55539 | 55559 | 55579 | 55589 |
| #1200 | Pink   | 55520 | 55530 | 55540 | 55560 | 55580 | 55590 |
|       |        |       |       |       |       |       | 55600 |
|       |        |       |       |       |       |       | 55604 |
|       |        |       |       |       |       |       | 55605 |
|       |        |       |       |       |       |       | 55606 |
|       |        |       |       |       |       |       | —     |
|       |        |       |       |       |       |       | —     |
|       |        |       |       |       |       |       | 55609 |
|       |        |       |       |       |       |       | 55610 |

\* Order in standard package quantities.

Diamond / CAN  
 Carboride Cutters  
 Specialty Tools  
 Mounted Points  
 Rubberized Abrasives  
 Flap Wheels  
 Polishing Brushes  
 Felt Bobs  
 Abrasive Compounds & Polishing Tools  
 NSK Exclusive Tools

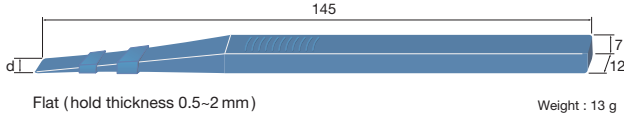
# ABRASIVE COMPOUNDS & POLISHING TOOLS

## 1 pc./pack Ceramic Fiber Grindstone (Total Length 100 mm)



| Grit  | Color  |       |       |       |       |       |       |       |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| #180  | Ivory  | 55614 | —     | —     | —     | 55744 | 55764 | 55764 |
| #300  | Brown  | —     | —     | —     | —     | 55745 | 55765 | 55765 |
| #400  | Orange | 55616 | 55626 | 55656 | 55686 | 55726 | 55746 | 55766 |
| #600  | Black  | 55617 | —     | —     | —     | —     | 55747 | 55767 |
| #800  | Blue   | —     | —     | —     | —     | 55728 | 55748 | 55768 |
| #1000 | White  | —     | 55629 | 55659 | 55689 | 55729 | 55749 | 55769 |
| #1200 | Pink   | —     | 55630 | 55660 | 55690 | 55730 | 55750 | 55770 |

## 2 pcs./pack Special Hand Holder For Ceramic Fiber Grindstones



Flat (hold thickness 0.5~2 mm)

Weight : 13 g

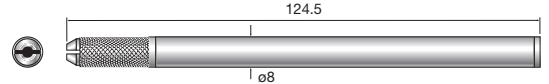
| d               |       |
|-----------------|-------|
| For 2 mm width  | 55461 |
| For 4 mm width  | 55462 |
| For 6 mm width  | 55463 |
| For 10 mm width | 55464 |

4 Types (for 2, 4, 6 and 10 mm width) ..... 55465



Abrasive Stone Sticks with high quality performance. They are highly effective for polishing.

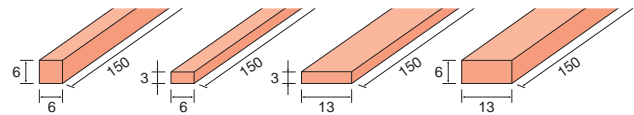
## 1 pc./pack Rounded Hand Holder (Pin Vice)



• Attachable shank diameter is ø2.7~3.0 mm

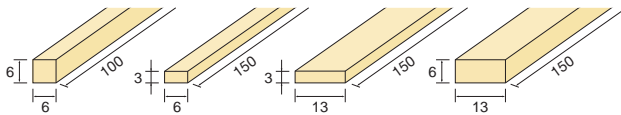
Weight : 22 g  
ø3 mm 57631

## 6 pcs./pack WA Abrasive Fiber Grindstone



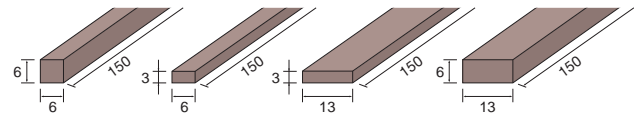
| Grit |       |       |       |       |
|------|-------|-------|-------|-------|
| #150 | 56156 | 56161 | 56166 | 56166 |
| #220 | 56122 | 56157 | 56162 | 56167 |
| #320 | 56123 | 56158 | 56163 | 56168 |
| #400 | 56124 | 56159 | 56164 | 56169 |
| #600 | 56125 | 56160 | 56165 | 56170 |

## 6 pcs./pack WA Abrasive Fiber Grindstone



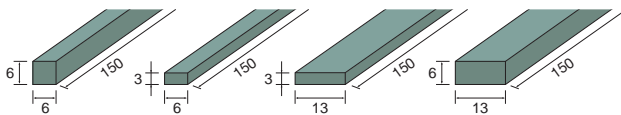
| Grit |       |       |       |       |
|------|-------|-------|-------|-------|
| #120 | 56231 | 56241 | 56245 | 56245 |
| #180 | 56232 | 56242 | 56246 | 56246 |
| #220 | 56218 | 56233 | 56243 | 56247 |
| #320 | 56234 | 56244 | 56248 | 56248 |

## 6 pcs./pack WA Abrasive Fiber Grindstone



| Grit |       |       |       |       |
|------|-------|-------|-------|-------|
| #100 | 56341 | 56361 | 56371 | 56381 |
| #120 | 56342 | 56362 | 56372 | 56382 |
| #180 | 56343 | 56363 | 56373 | 56383 |
| #320 | 56345 | 56365 | 56375 | 56385 |
| #600 | 56346 | 56366 | 56376 | 56386 |

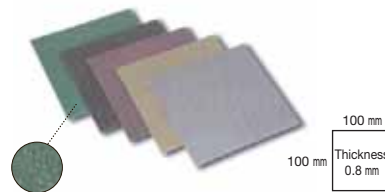
## 6 pcs./pack GC/Sic Abrasive Fiber Grindstone



| Grit |       |       |       |       |
|------|-------|-------|-------|-------|
| #240 | 56417 | 56432 | 56437 | 56442 |
| #320 | 56418 | 56433 | 56438 | 56443 |
| #400 | 56419 | 56434 | 56439 | 56444 |
| #600 | 56420 | 56435 | 56440 | 56445 |

## 1 pc./pack Electroplated Diamond Sheet (Dot-Pattern Electroplated Type)

• Strongly bonded diamond-electroplated nickel alloy sheets.

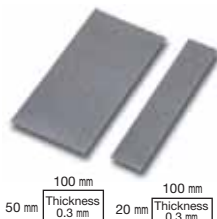


| Grit  | Grain Diameter | Color  |       |
|-------|----------------|--------|-------|
| # 60  | 250 μ          | Green  | 56701 |
| # 120 | 125 μ          | Black  | 56702 |
| # 200 | 74 μ           | Red    | 56703 |
| # 400 | 40 μ           | Yellow | 56704 |
| # 800 | 20 μ           | Gray   | 56705 |

Adhesive Back

## 1 pc./pack Electroplated Diamond Sheet (Fully Electroplated Type)

• Ultra-thin copper alloy is used for base material. Diamond abrasive is electroplated on the full sheet.



| Grit  | Size (mm) |          | Grit    | Size (mm) |          |
|-------|-----------|----------|---------|-----------|----------|
|       | 100 x 20  | 100 x 50 |         | 100 x 20  | 100 x 50 |
| # 120 | 56731     | 56741    | # 600   | 56736     | 56746    |
| # 150 | 56732     | 56742    | # 800   | 56737     | 56747    |
| # 200 | 56733     | 56743    | # 1,200 | 56738     | 56748    |
| # 300 | 56734     | 56744    | # 1,800 | —         | 56749    |
| # 400 | 56735     | 56745    |         |           |          |

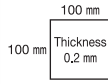
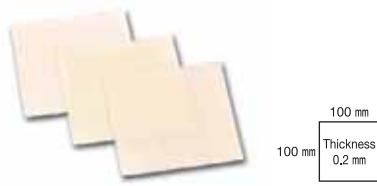
Adhesive Back



# ABRASIVE COMPOUNDS & POLISHING TOOLS

## 1 pc./pack Diamond Lapping Film (Film Coated Type)

• Fine grain diamond is coated on a strong polyester film.

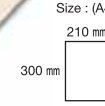


| Grit    | Grain Diameter | Color |       |
|---------|----------------|-------|-------|
| # 400   | 40 μ           | Ivory | 56802 |
| # 800   | 25 μ           | Ivory | 56804 |
| # 1,000 | 15 μ           | Ivory | 56805 |
| # 1,500 | 12 μ           | Ivory | 56806 |
| # 3,000 | 6 μ            | Ivory | 56807 |

Adhesive Back

## 1 pc./pack Felt Sheet

• Ideal for fine finishing with various abrasive compounds.

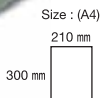


| Thickness |       |
|-----------|-------|
| 1 mm      | 56901 |
| 2 mm      | 56902 |
| 3 mm      | 56903 |

Adhesive Back

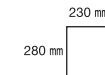
## 1 pc./pack Abrasive Embedded Felt Sheet

• Chrome oxide (green rouge) is embedded into the felt sheet.



| Thickness |       |
|-----------|-------|
| 1 mm      | 56911 |

## 5 pcs./pack Lapping Film Sheet



| Grit     | Grain Diameter | Color        |       |
|----------|----------------|--------------|-------|
| # 400    | 40 μ           | Ivory        | 56962 |
| # 600    | 30 μ           | Green        | 56963 |
| # 800    | 20 μ           | Blue         | 56964 |
| # 1,000  | 15 μ           | Purple       | 56965 |
| # 1,500  | 10 μ           | Yellow Ocher | 56967 |
| # 3,000  | 5 μ            | Yellow       | 56968 |
| # 6,000  | 2 μ            | Light Blue   | 56969 |
| # 10,000 | 1 μ            | Yellow       | 56970 |

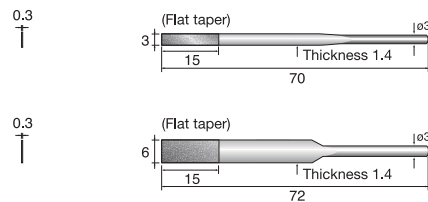
Adhesive Back



Diamond files for precise finishing. Highly durable, they retain sharpness even after long use.

## SHANK Ø3.0

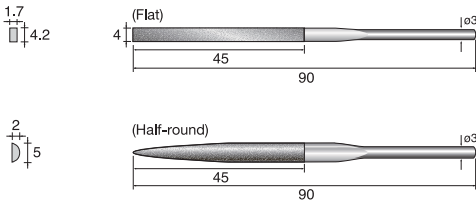
### 1 pc./pack Diamond Files (Flat Taper)



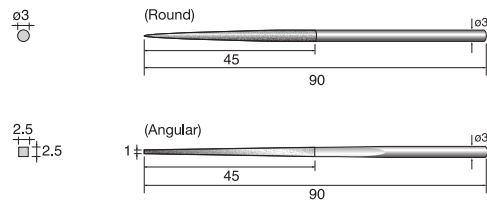
| Grit  |       |
|-------|-------|
| # 200 | 62301 |
| # 400 | 62302 |
| # 600 | 62303 |
| # 200 | 62305 |
| # 400 | 62306 |
| # 600 | 62307 |

## SHANK Ø3.0

### 1 pc./pack Diamond Files (Flat, Half-Round, Round, Angular)



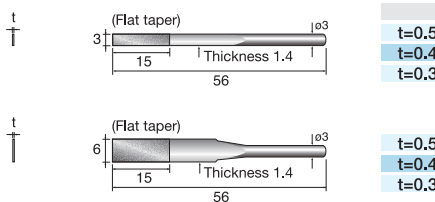
| Grit  |       |
|-------|-------|
| # 150 | 62311 |
| # 150 | 62313 |



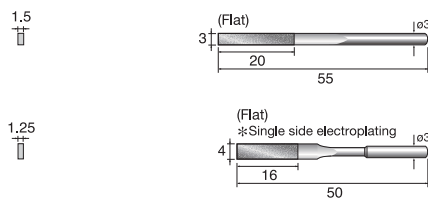
| Grit  |       |
|-------|-------|
| # 150 | 62315 |
| # 150 | 62317 |

## SHANK Ø3.0

### 1 pc./pack Diamond Files (Flat Taper, Flat)



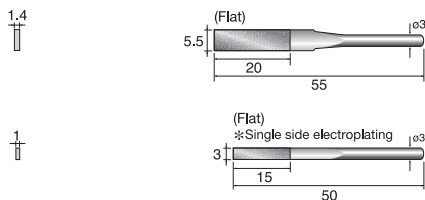
| Grit         |       |
|--------------|-------|
| t=0.5 # 200  | 62801 |
| t=0.4 # 400  | 62802 |
| t=0.35 # 600 | 62803 |
| t=0.5 # 200  | 62805 |
| t=0.4 # 400  | 62806 |
| t=0.35 # 600 | 62807 |



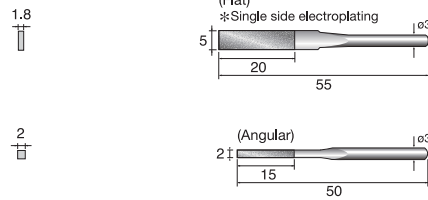
| Grit  |       |
|-------|-------|
| # 150 | 62811 |
| # 200 | 62812 |
| # 400 | 62813 |
| # 100 | 62814 |

## SHANK Ø3.0

### 1 pc./pack Diamond Files (Flat, Angular)



| Grit  |       |
|-------|-------|
| # 150 | 62815 |
| # 200 | 62816 |
| # 400 | 62817 |
| # 150 | 62821 |
| # 200 | 62822 |
| # 400 | 62823 |



| Grit  |       |
|-------|-------|
| # 150 | 62825 |
| # 200 | 62826 |
| # 400 | 62827 |
| # 150 | 62831 |
| # 200 | 62832 |
| # 400 | 62833 |

# ABRASIVE COMPOUNDS & POLISHING TOOLS

## SHANK $\phi 3.0$

1 pc./pack **Diamond Files (Round, Round taper)**

| Symbol   | Shape   | Length | Width | Grit  | Part No. |
|----------|---------|--------|-------|-------|----------|
| $\phi 1$ | (Round) | 50     | 15    | # 100 | 62840    |
|          |         |        |       | # 150 | 62841    |
|          |         |        |       | # 200 | 62842    |
|          |         |        |       | # 400 | 62843    |
| $\phi 2$ | (Round) | 50     | 15    | # 150 | 62845    |
|          |         |        |       | # 200 | 62846    |
|          |         |        |       | # 400 | 62847    |
|          |         |        |       |       |          |

| Symbol     | Shape         | Length | Width | Grit  | Part No. |
|------------|---------------|--------|-------|-------|----------|
| $\phi 3$   | (Round)       | 55     | 20    | # 150 | 62851    |
|            |               |        |       | # 200 | 62852    |
|            |               |        |       | # 400 | 62853    |
| $\phi 0.5$ | (Round Taper) | 51     | 25    | # 150 | 62855    |
|            |               |        |       | # 200 | 62856    |
|            |               |        |       | # 400 | 62857    |

## SHANK $\phi 3.0$

1 pc./pack **Diamond Files (Half-Round, Triangular)**

| Symbol | Shape        | Length | Width | Grit  | Part No. |
|--------|--------------|--------|-------|-------|----------|
| $1.5$  | (Half-round) | 50     | 15    | # 150 | 62865    |
|        |              |        |       | # 200 | 62866    |
|        |              |        |       | # 400 | 62867    |
| $2$    | (Half-round) | 55     | 20    | # 150 | 62871    |
|        |              |        |       | # 200 | 62872    |
|        |              |        |       | # 400 | 62873    |

| Symbol | Shape        | Length | Width | Grit  | Part No. |
|--------|--------------|--------|-------|-------|----------|
| $2.6$  | (Triangular) | 55     | 20    | # 150 | 62881    |
|        |              |        |       | # 200 | 62882    |
|        |              |        |       | # 400 | 62883    |



Diamond files for precise finishing. Highly durable, they retain sharpness even after long use.

## SHANK $\phi 3.0$

1 pc./pack **Diamond Files (Flat Taper)**

| Symbol | Shape        | Length | Width | Thickness | Grit  | Part No. |
|--------|--------------|--------|-------|-----------|-------|----------|
| $0.6$  | (Flat taper) | 130    | 30    | 1.7       | # 200 | 57101    |
|        |              |        |       |           | # 400 | 57102    |
|        |              |        |       |           | # 600 | 57103    |
| $0.6$  | (Flat taper) | 130    | 30    | 1.7       | # 200 | 57104    |
|        |              |        |       |           | # 400 | 57105    |
|        |              |        |       |           | # 600 | 57106    |

## SHANK $\phi 3.0$

1 pc./pack **Diamond Files (Flat Taper, Thin Flat, Flat)**

| Symbol | Shape        | Length | Width | Thickness | Grit  | Part No. |
|--------|--------------|--------|-------|-----------|-------|----------|
| $0.6$  | (Flat taper) | 130    | 30    | 1.7       | # 200 | 57107    |
|        |              |        |       |           | # 400 | 57108    |
|        |              |        |       |           | # 600 | 57109    |
| $0.5$  | (Thin flat)  | 140    | 40    | 5.5       | # 150 | 57110    |
|        |              |        |       |           | # 200 | 57111    |
|        |              |        |       |           | # 400 | 57112    |

| Symbol | Shape       | Length | Width | Thickness | Grit  | Part No. |
|--------|-------------|--------|-------|-----------|-------|----------|
| $0.8$  | (Thin flat) | 140    | 50    | 5.5       | # 150 | 57113    |
|        |             |        |       |           | # 200 | 57114    |
|        |             |        |       |           | # 400 | 57115    |
| $1.4$  | (Flat)      | 140    | 50    | 6         | # 120 | 57116    |
|        |             |        |       |           | # 200 | 57117    |
|        |             |        |       |           | # 400 | 57118    |

## SHANK $\phi 1.0, \phi 2.0, \phi 3.0, \phi 3.4$

1 pc./pack **Diamond Files (Round)**

| Symbol   | Shape   | Length | Width | Grit  | Part No. |
|----------|---------|--------|-------|-------|----------|
| $\phi 1$ | (Round) | 140    | 40    | # 200 | 57131    |
|          |         |        |       | # 400 | 57132    |
|          |         |        |       |       |          |
| $\phi 2$ | (Round) | 140    | 40    | # 200 | 57133    |
|          |         |        |       | # 400 | 57134    |
|          |         |        |       |       |          |

| Symbol     | Shape   | Length | Width | Grit  | Part No. |
|------------|---------|--------|-------|-------|----------|
| $\phi 3$   | (Round) | 140    | 50    | # 120 | 57135    |
|            |         |        |       | # 200 | 57136    |
|            |         |        |       | # 400 | 57137    |
| $\phi 3.5$ | (Round) | 180    | 60    | # 120 | 57138    |
|            |         |        |       | # 200 | 57139    |
|            |         |        |       |       |          |

## SHANK $\phi 3.0, \phi 3.4$

1 pc./pack **Diamond Files (Half-Round)**

| Symbol | Shape        | Length | Width | Grit  | Part No. |
|--------|--------------|--------|-------|-------|----------|
| $2$    | (Half-round) | 140    | 50    | # 120 | 57141    |
|        |              |        |       | # 200 | 57142    |
|        |              |        |       |       |          |
| $2$    | (Half-round) | 180    | 60    | # 120 | 57144    |
|        |              |        |       | # 200 | 57145    |
|        |              |        |       |       |          |

1 pc./pack **Diamond Files (Angular)**

| Symbol | Shape     | Length | Width | Grit  | Part No. |
|--------|-----------|--------|-------|-------|----------|
| $2.5$  | (Angular) | 140    | 50    | # 120 | 57151    |
|        |           |        |       | # 200 | 57152    |
|        |           |        |       |       |          |
| $3$    | (Angular) | 180    | 60    | # 200 | 57154    |
|        |           |        |       |       |          |
|        |           |        |       |       |          |

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

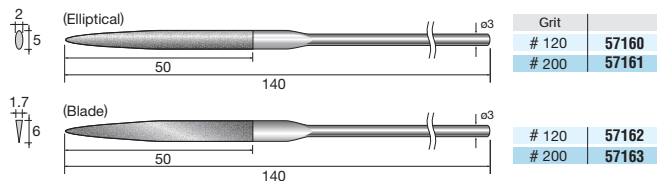
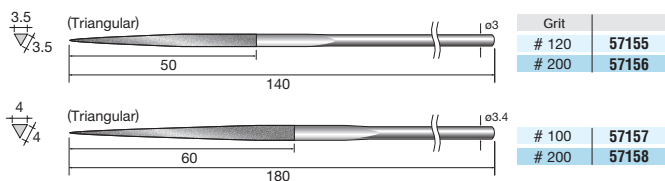
Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

# ABRASIVE COMPOUNDS & POLISHING TOOLS

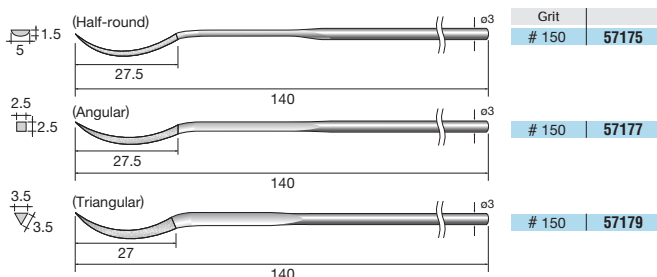
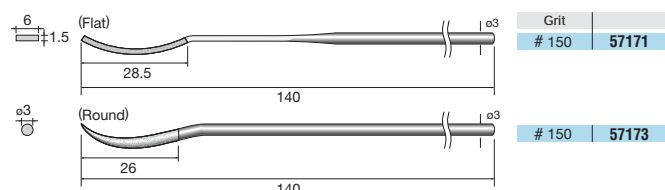
## SHANK $\phi 3.0, \phi 3.4$

### 1 pc./pack Diamond Files (Triangular, Elliptical, Blade)



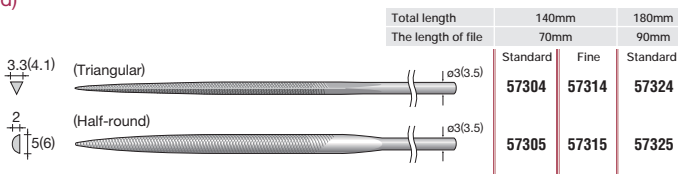
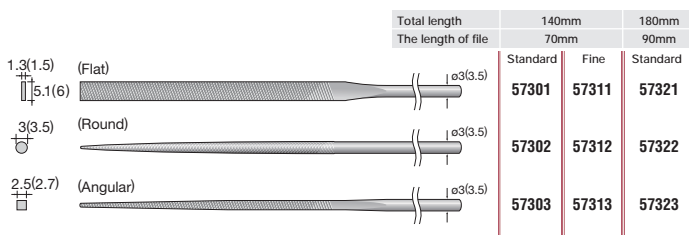
## SHANK $\phi 3.0$

### 1 pc./pack Diamond Files (Sickle Type) (Flat, Round, Half-Round, Angular, Triangular)



## SHANK $\phi 3.0, \phi 3.5$

### 3 pcs./pack Precision Finishing Files (Flat, Round, Angular, Triangular, Half-Round)

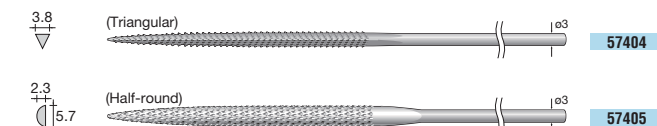
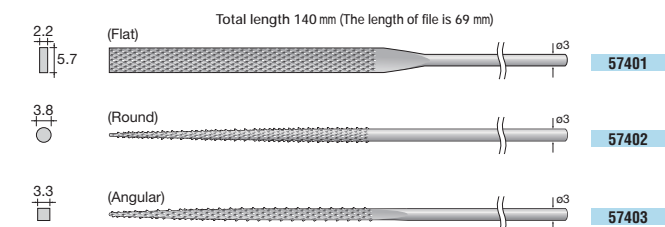


- 5 files-pack set**
- **Standard (total length 140mm) set** (No.57301-No.57305 : 1pc. each) ..... **57309**
  - **Fine (total length 140mm) set** (No.57311-No.57315 : 1pc. each) ..... **57319**
  - **Standard (total length 180mm) set** (No.57321-No.57325 : 1pc. each) ..... **57329**

\* (Figures) means dimensions for standard file total length 180mm.

## SHANK $\phi 3.0$

### 3 pcs./pack Rasps for plastics and wood working (Flat, Round, Angular, Triangular, Half-Round)



- 5 files-pack set**
- **Rasps set for plastics and wood working** for plastics and woodworking (No.57401-No.57405 : 1pc. each) ..... **57410**

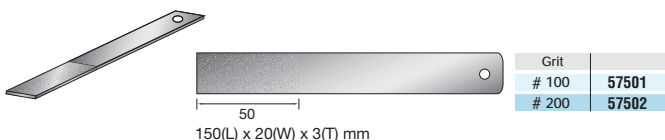
### 1 pc./pack Special Grip Handle

- Attachable shank diameter is  $\phi 2\sim 4$  mm



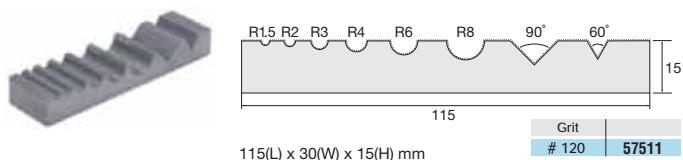
### 1 pc./pack Diamond Hand Dresser

- Light weight, electroplated diamond dresser. Ideally suited to a wide variety of applications.



### 1 pc./pack Diamond Block Dresser

- Can be molded for purpose use, by turning a work with axis, or by vibrating and pushing a stick abrasive material.



# ABRASIVE COMPOUNDS & POLISHING TOOLS

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

1 pc./pack

## Grindstone Dresser

• Used for dressing diamond / CBN wheels, metal or resin bond.



|            | Size                                       | WA                     | GC                     |
|------------|--|------------------------|------------------------|
| Handy Type | Flat Plate Type<br>75(W) x 25(D) x 8(H) mm | <b>57521</b><br>(#80)  | <b>57526</b><br>(#80)  |
|            | Mini Type<br>50(W) x 7(D) x 7(H) mm        | <b>57531</b><br>(#200) | <b>57536</b><br>(#360) |
| Stick Type | 100(W) x 20(D) x 15(H) mm                  | <b>57541</b><br>(#200) | <b>57546</b><br>(#360) |

1 pc./pack

## Natural Diamond Single Stone Dresser

• Used for dressing or shaping standard grindstones.



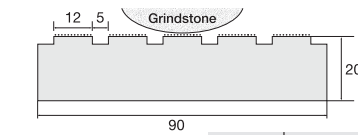
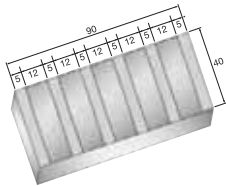
\* Shank diameter :  $\phi$ 11mm  
Length : 100mm

| No. of Carats | Recommended Grindstone Outer Diameter |              |
|---------------|---------------------------------------|--------------|
| 1/2 (0.5ct)   | $\phi$ 150-200mm                      | <b>57552</b> |
| 3/4 (0.75ct)  | $\phi$ 255-300mm                      | <b>57553</b> |
| 1ct           | $\phi$ 300-355mm                      | <b>57554</b> |

1 pc./pack

## Tooling Block Dresser

• Dresser with electroplated diamonds on a block metal surface.



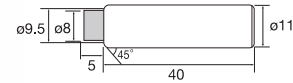
| Grit |              |
|------|--------------|
| # 80 | <b>57571</b> |

90(L) x 40(W) x 20(H) mm

1 pc./pack

## Imprint Dresser For Truing

• Used to adjust the grinding surface of diamond, CBN foil and standard grindstones.



| Grit  |              |
|-------|--------------|
| # 100 | <b>57581</b> |

# NAKANISHI's EXCLUSIVE TOOLS

## Exclusive Tools of Ultrasonic Polisher "SHEENUS ZERO"



Special electroplated diamond files of Nakanishi's ultrasonic polisher "SHEENUS ZERO". Ideal for fine burr removal and rough finishing.

### 1 pc./pack Electroplated Diamond File

| File Type                             | Diagram | Grit  | Part No. |
|---------------------------------------|---------|-------|----------|
| Flat taper                            |         | # 200 | 60101    |
|                                       |         | # 320 | 60102    |
|                                       |         | # 600 | 60103    |
| Flat                                  |         | # 200 | 60105    |
|                                       |         | # 320 | 60106    |
|                                       |         | # 600 | 60107    |
| *60107 is thickness 0.8mm.            |         |       |          |
| Flat bent                             |         | # 200 | 60111    |
|                                       |         | # 320 | 60112    |
|                                       |         | # 600 | 60113    |
| Column with the rounded edge          |         | # 200 | 60151    |
|                                       |         | # 320 | 60152    |
|                                       |         | # 600 | 60153    |
| Column with the rounded edge          |         | # 200 | 60155    |
|                                       |         | # 320 | 60156    |
|                                       |         | # 600 | 60157    |
| Round taper (cone-shaped)             |         | # 200 | 60181    |
|                                       |         | # 320 | 60182    |
|                                       |         | # 600 | 60183    |
| Triangular taper (Triangular pyramid) |         | # 200 | 60185    |
|                                       |         | # 320 | 60186    |
|                                       |         | # 600 | 60187    |
| Oval taper                            |         | # 200 | 60191    |
|                                       |         | # 320 | 60192    |
|                                       |         | # 600 | 60193    |
| Flat long                             |         | # 200 | 60115    |
|                                       |         | # 320 | 60116    |
|                                       |         | # 600 | 60117    |
| Flat long taper                       |         | # 200 | 60231    |
|                                       |         | # 320 | 60232    |
|                                       |         | # 600 | 60233    |
| Flat long taper                       |         | # 200 | 60235    |
|                                       |         | # 320 | 60236    |
|                                       |         | # 600 | 60237    |

### 2 pcs./pack Ceramic Fiber Grindstone (Total Length 50 mm)

- Alumina fiber abrasive with the strength and the flexibility for rough or fine finishing.



| Grain   | Color  | W = 4 mm | W = 6 mm |
|---------|--------|----------|----------|
| # 120   | Violet | 60511    | 60516    |
| # 220   | Brown  | 60512    | 60517    |
| # 400   | Orange | 60513    | 60518    |
| # 800   | Blue   | 60514    | 60519    |
| # 1,200 | Red    | 60515    | 60520    |

| Grain   | Color   | ø3 mm |
|---------|---------|-------|
| # 220   | Gray    | 60551 |
| # 300   | Magenta | 60552 |
| # 400   | Orange  | 60553 |
| # 600   | Black   | 60554 |
| # 800   | Blue    | 60555 |
| # 1,000 | White   | 60556 |
| # 1,200 | Red     | 60557 |

### 5 pcs./pack Brass Lapping Tip (Total Length 40 mm)

- Lapping tools for finishing using diamond or abrasive compounds.



| Grain diameter | Part No. |
|----------------|----------|
| d=ø2 mm        | 60801    |
| d=ø3 mm        | 60802    |
|                | 60805    |

\*Use after clamping in Special Tip Holder

### 2 pcs./pack Special Tip Holder • Choose by tip size and shape.

| Grain diameter | Part No. |
|----------------|----------|
| d= ø2.0 mm     | 60901    |
| d= ø3.0 mm     | 60902    |
| d= ø3.3 mm     | 60903    |
| d= ø3.2 mm     | 60904    |

- Used for Round Ceramic Fiber Grindstone. Best for soft materials.

| d=         | Part No. |
|------------|----------|
| d= ø2.0 mm | 60911    |
| d= ø3.0 mm | 60912    |
| d= ø3.2 mm | 60913    |

- Used for round tip (Brass Lapping Tip, Electroplated Diamond File: ● marked products on P.59). Best for hard materials.

| Grain thickness | Part No. |
|-----------------|----------|
| t=0.8 mm        | 60921    |
| t=1.0 mm        | 60922    |
| t=2.0 mm        | 60923    |
| t=3.0 mm        | 60924    |
| t=3.3 mm        | 60925    |

- Used for Flat Ceramic Fiber Grindstone. Best for both hard and soft materials.



**NAKANISHI's EXCLUSIVE TOOLS**

Exclusive Tools of Electromotive Polisher

**"LUSTER", "MINI-LUSTER", "SWING-LUSTER"**



**LUSTER**

Best for finishing large open work areas.

● Marked tools can be used for Sheenus neo with the Tip Holder. (60912)

**SHANK  $\phi 3.0$**

**1 pc./pack Electroplated Diamond File**

|            |  |       |                |
|------------|--|-------|----------------|
| Flat taper |  | Grit  |                |
|            |  | # 200 | <b>62301</b> ● |
|            |  | # 400 | <b>62302</b> ● |
| Flat taper |  | # 200 | <b>62305</b>   |
|            |  | # 400 | <b>62306</b>   |
|            |  | # 600 | <b>62307</b>   |
| Flat       |  | # 150 | <b>62311</b>   |

|            |  |       |                |
|------------|--|-------|----------------|
| Half-round |  | Grit  |                |
|            |  | # 150 | <b>62313</b>   |
| Round      |  | # 150 | <b>62315</b>   |
|            |  | # 200 | <b>62316</b>   |
|            |  | # 400 | <b>62317</b> ● |
| Angular    |  | # 150 | <b>62317</b> ● |
|            |  | # 200 | <b>62318</b>   |
|            |  | # 400 | <b>62319</b>   |

**1 pc./pack Diamond File Flat Type**

\* Use with stone holder No.62502.  
\* File part is flat taper.

|  |       |                          |
|--|-------|--------------------------|
|  | Grit  |                          |
|  | # 150 | t=0.7~1.3mm <b>62351</b> |
|  | # 200 | t=0.6~1.2mm <b>62352</b> |
|  | # 400 | t=0.5~1.0mm <b>62353</b> |

|  |       |                          |
|--|-------|--------------------------|
|  | Grit  |                          |
|  | # 150 | t=0.7~1.3mm <b>62355</b> |
|  | # 200 | t=0.6~1.2mm <b>62356</b> |
|  | # 400 | t=0.5~1.0mm <b>62357</b> |
|  | Grit  |                          |
|  | # 150 | t=0.7~1.3mm <b>62361</b> |
|  | # 200 | t=0.6~1.2mm <b>62362</b> |
|  | # 400 | t=0.5~1.0mm <b>62363</b> |

**SHANK  $\phi 3.0, \phi 3.5$**

**3 pcs./pack Precision Finishing Files (Flat, Round, Angular, Triangular, Half-Round)**

|                           | Total length<br>The length of file | 140mm<br>70mm |              | 180mm<br>90mm |
|---------------------------|------------------------------------|---------------|--------------|---------------|
|                           |                                    | Standard      | Fine         | Standard      |
| 1.3(1.5)<br>5.1(6) (Flat) |                                    | <b>57301</b>  | <b>57311</b> | <b>57321</b>  |
| 3(3.5) (Round)            |                                    | <b>57302</b>  | <b>57312</b> | <b>57322</b>  |
| 2.5(2.7) (Angular)        |                                    | <b>57303</b>  | <b>57313</b> | <b>57323</b>  |

\*(Figures) means dimensions for standard file total length 180mm.

|                        | Total length<br>The length of file | 140mm<br>70mm |              | 180mm<br>90mm |
|------------------------|------------------------------------|---------------|--------------|---------------|
|                        |                                    | Standard      | Fine         | Standard      |
| 3.3(4.1) (Triangular)  |                                    | <b>57304</b>  | <b>57314</b> | <b>57324</b>  |
| 2<br>5(6) (Half-round) |                                    | <b>57305</b>  | <b>57315</b> | <b>57325</b>  |

**5 files-pack set**

- Standard (total length 140mm) set (No.57301~No.57305 : 1pc. each) ..... **57309**
- Fine (total length 140mm) set (No.57311~No.57315 : 1pc. each) ..... **57319**
- Standard (total length 180mm) set (No.57321~No.57325 : 1pc. each) ..... **57329**

**SHANK  $\phi 3.0$**

**3 pcs./pack Rasps for plastics and wood working (Flat, Round, Angular, Triangular, Half-Round)**

|                   |  |              |
|-------------------|--|--------------|
| 2.2<br>5.7 (Flat) |  | <b>57401</b> |
| 3.8 (Round)       |  | <b>57402</b> |
| 3.3 (Angular)     |  | <b>57403</b> |

|                         |  |              |
|-------------------------|--|--------------|
| 3.8 (Triangular)        |  | <b>57404</b> |
| 2.3<br>5.7 (Half-round) |  | <b>57405</b> |

**5 files-pack set**

- Rasps set for plastics and wood working for plastics and woodworking (No.57401~No.57405 : 1pc. each) ..... **57410**

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

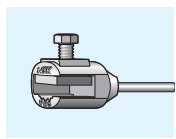
Felt Bobs

Abrasive Compounds & Polishing Tools

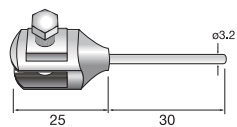
NSK Exclusive Tools

# NAKANISHI's EXCLUSIVE TOOLS

## 1 pc./pack Stone Holder



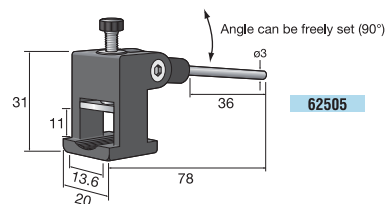
Maximum clamping thickness 4.5 x Width 11 mm



62502



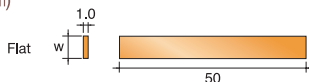
Maximum clamping thickness 11 x Width 13.5 mm



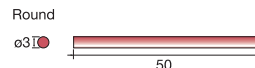
62505

## 2 pcs./pack Ceramic Fiber Grindstone (Total Length 50 mm)

- Alumina fiber abrasive with the strength and the flexibility for rough or fine finishing.

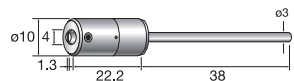


| Grit    | Color  | W = 4 mm | W = 6 mm | W = 10 mm |
|---------|--------|----------|----------|-----------|
| # 120   | Violet | 60511    | 60516    | 60521     |
| # 220   | Brown  | 60512    | 60517    | 60522     |
| # 400   | Orange | 60513    | 60518    | 60523     |
| # 800   | Blue   | 60514    | 60519    | 60524     |
| # 1,200 | Red    | 60515    | 60520    | 60525     |

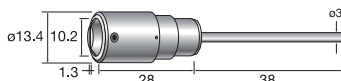


| Grit    | Color   | ø3 mm |
|---------|---------|-------|
| # 220   | Gray    | 60551 |
| # 300   | Magenta | 60552 |
| # 400   | Orange  | 60553 |
| # 600   | Black   | 60554 |
| # 800   | Blue    | 60555 |
| # 1,000 | White   | 60556 |
| # 1,200 | Red     | 60557 |

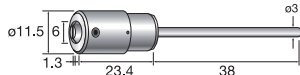
## 1 pc./pack Ceramic Fiber Grindstone Holder · Grindstone Holder



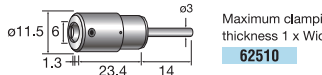
Maximum clamping thickness 1 x Width 4 mm  
62506



Maximum clamping thickness 1 x Width 10 mm  
62508

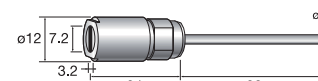


Maximum clamping thickness 1 x Width 6 mm  
62507



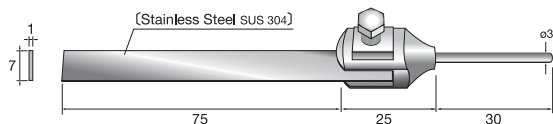
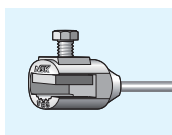
Maximum clamping thickness 1 x Width 6 mm  
62510

### Grindstone Holder

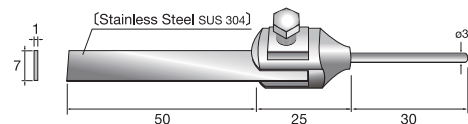


Maximum clamping thickness 3 x Width 6 mm  
62509

## 1 pc./pack Flat Holder • Tip for use with abrasive sheets.



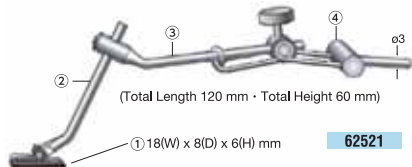
62512



62982

## 1 pc./pack Angular Pad Holder

- Holder for use with abrasive tips for polishing flat surfaces.



62521

| Grit |       |
|------|-------|
| ①    | 62525 |
| ②    | 62526 |
| ③    | 62527 |
| ④    | 62751 |

## Abrasive Tip (For Flat Holder and Angular Pad Holder)

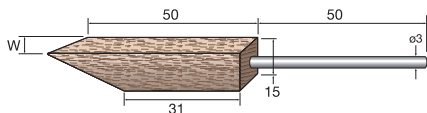
### 100 pcs./pack Sand Paper Tip



| Grit  |       | Grit    |       |
|-------|-------|---------|-------|
| # 120 | 62552 | # 1,000 | 62559 |
| # 320 | 62555 | # 1,500 | 62560 |
| # 600 | 62557 |         |       |

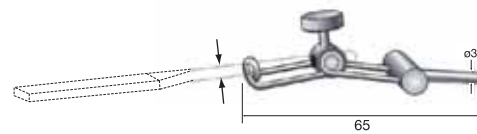
Adhesive Back

## 3 pcs./pack Wood Tip Holder



| W     |       |
|-------|-------|
| 10 mm | 62621 |
| 15 mm | 62622 |
| 20 mm | 62623 |

## 1 pc./pack Spring Holder



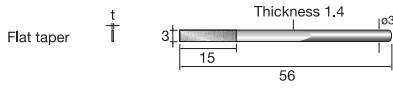
\* Mountable shaft diameter range ø1-ø3.3 mm

62751

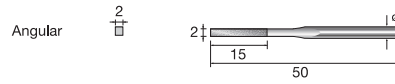
**NAKANISHI'S EXCLUSIVE TOOLS**

**SHANK  $\phi 3.0$**

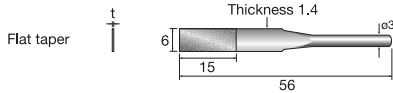
**1 pc./pack Electroplated Diamond File**



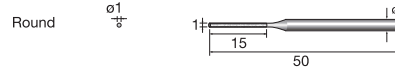
| t       | Grit  |              |
|---------|-------|--------------|
| 0.5 mm  | # 200 | <b>62801</b> |
| 0.4 mm  | # 400 | <b>62802</b> |
| 0.35 mm | # 600 | <b>62803</b> |



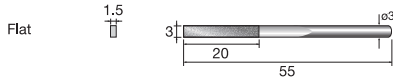
| Grit  |              |
|-------|--------------|
| # 150 | <b>62831</b> |
| # 200 | <b>62832</b> |
| # 400 | <b>62833</b> |



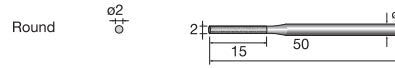
|         |       |              |
|---------|-------|--------------|
| 0.5 mm  | # 200 | <b>62805</b> |
| 0.4 mm  | # 400 | <b>62806</b> |
| 0.35 mm | # 600 | <b>62807</b> |



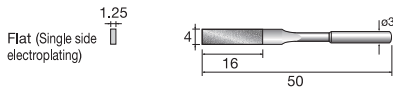
|       |              |
|-------|--------------|
| # 100 | <b>62840</b> |
| # 150 | <b>62841</b> |
| # 200 | <b>62842</b> |
| # 400 | <b>62843</b> |



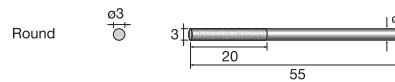
|       |              |
|-------|--------------|
| # 150 | <b>62811</b> |
| # 200 | <b>62812</b> |
| # 400 | <b>62813</b> |



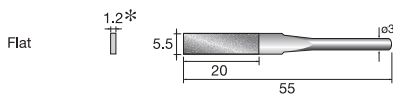
|       |              |
|-------|--------------|
| # 150 | <b>62845</b> |
| # 200 | <b>62846</b> |
| # 400 | <b>62847</b> |



|       |              |
|-------|--------------|
| # 100 | <b>62814</b> |
|-------|--------------|



|       |              |
|-------|--------------|
| # 150 | <b>62851</b> |
| # 200 | <b>62852</b> |
| # 400 | <b>62853</b> |

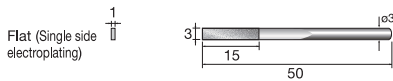


|       |              |
|-------|--------------|
| # 150 | <b>62815</b> |
| # 200 | <b>62816</b> |
| # 400 | <b>62817</b> |

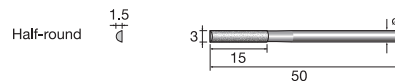


|       |              |
|-------|--------------|
| # 150 | <b>62855</b> |
| # 200 | <b>62856</b> |
| # 400 | <b>62857</b> |

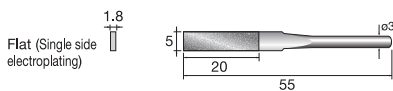
\* 62815 is thickness 1.4mm.



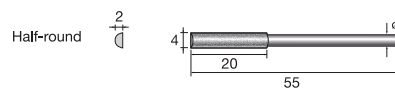
|       |              |
|-------|--------------|
| # 150 | <b>62821</b> |
| # 200 | <b>62822</b> |
| # 400 | <b>62823</b> |



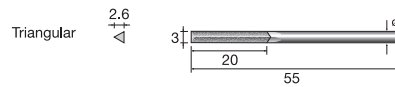
|       |              |
|-------|--------------|
| # 150 | <b>62865</b> |
| # 200 | <b>62866</b> |
| # 400 | <b>62867</b> |



|       |              |
|-------|--------------|
| # 150 | <b>62825</b> |
| # 200 | <b>62826</b> |
| # 400 | <b>62827</b> |



|       |              |
|-------|--------------|
| # 150 | <b>62871</b> |
| # 200 | <b>62872</b> |
| # 400 | <b>62873</b> |



|       |              |
|-------|--------------|
| # 150 | <b>62881</b> |
| # 200 | <b>62882</b> |
| # 400 | <b>62883</b> |

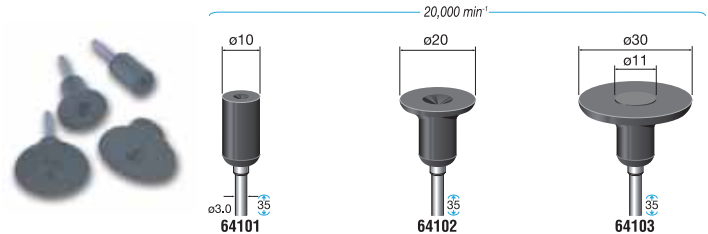
**Exclusive Tools of "60° & 90° ANGLE"**



Special tools for Nakanishi Micro-grinder "Angle Attachment". Highly efficient for grinding, polishing, finishing, etc.

**SHANK  $\phi 3.0$**

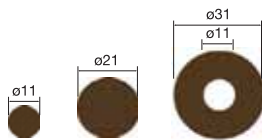
**5 pcs./pack Special Rubber Pad For Abrasive and Felt Disks**



**100 pcs./pack Sand Paper Disk**

**Cloth Type**

• For Metals ... Both for dry and wet finishing (Adhesive is resistant to water and oil)

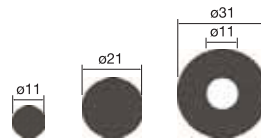


|            | Grit         | ø11          | ø21          | ø31          |
|------------|--------------|--------------|--------------|--------------|
| For Metals | # 60         | <b>64111</b> | <b>64121</b> | <b>64141</b> |
|            | # 80         | <b>64112</b> | <b>64122</b> | <b>64142</b> |
|            | # 120        | <b>64113</b> | <b>64123</b> | <b>64143</b> |
|            | # 180        | <b>64114</b> | <b>64124</b> | <b>64144</b> |
|            | # 240        | <b>64115</b> | <b>64125</b> | <b>64145</b> |
|            | # 320        | <b>64116</b> | <b>64126</b> | <b>64146</b> |
|            | # 400        | <b>64117</b> | <b>64127</b> | <b>64147</b> |
| # 600      | <b>64118</b> | <b>64128</b> | <b>64148</b> |              |

Adhesive Back

**Paper Type**

• For Metals ... Both for dry and wet finishing (Adhesive is resistant to water and oil)

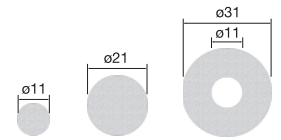


|                    | Grit    | ø11          | ø21          | ø31          |
|--------------------|---------|--------------|--------------|--------------|
| For Metals (Black) | # 80    | <b>64131</b> | <b>64151</b> | <b>64171</b> |
|                    | # 120   | <b>64132</b> | <b>64152</b> | <b>64172</b> |
|                    | # 180   | <b>64133</b> | <b>64153</b> | <b>64173</b> |
|                    | # 240   | <b>64134</b> | <b>64154</b> | <b>64174</b> |
|                    | # 320   | <b>64135</b> | <b>64155</b> | <b>64175</b> |
|                    | # 400   | <b>64136</b> | <b>64156</b> | <b>64176</b> |
|                    | # 600   | <b>64137</b> | <b>64157</b> | <b>64177</b> |
|                    | # 800   | <b>64138</b> | <b>64158</b> | <b>64178</b> |
|                    | # 1,000 | <b>64139</b> | <b>64159</b> | <b>64179</b> |
|                    | # 1,500 | <b>64140</b> | <b>64160</b> | <b>64180</b> |

Adhesive Back

**Paper Type**

• Dry type ... For Metal, Woodwork, Paint, Putty polishing, Dry use



|                      | Grit  | ø11          | ø21          | ø31          |
|----------------------|-------|--------------|--------------|--------------|
| For Dry type (White) | # 80  | <b>64201</b> | <b>64211</b> | <b>64221</b> |
|                      | # 120 | <b>64202</b> | <b>64212</b> | <b>64222</b> |
|                      | # 180 | <b>64203</b> | <b>64213</b> | <b>64223</b> |
|                      | # 240 | <b>64204</b> | <b>64214</b> | <b>64224</b> |
|                      | # 320 | <b>64205</b> | <b>64215</b> | <b>64225</b> |
|                      | # 400 | <b>64206</b> | <b>64216</b> | <b>64226</b> |

Adhesive Back

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

# NAKANISHI's EXCLUSIVE TOOLS

## 100 pcs./pack Zirconium Disk

- Best for finishing aluminum, stainless steel, copper alloy, brass, etc.



| Grit  | ø11   | ø21   | ø31   |
|-------|-------|-------|-------|
| # 60  | 64251 | 64261 | 64271 |
| # 80  | 64252 | 64262 | 64272 |
| # 120 | 64253 | 64263 | 64273 |
| # 150 | 64254 | 64264 | 64274 |

Adhesive Back

## 20 pcs./pack Fiber Disk

- Soft finishing can be done on flat & curved surfaces, due to superior flexibility.



| Grit    | Color     | ø11   | ø21   | ø31   |
|---------|-----------|-------|-------|-------|
| # 120   | Brown     | 64281 | 64291 | 64301 |
| # 240   | Violet    | 64282 | 64292 | 64302 |
| # 320   | Red Brown | 64283 | 64293 | 64303 |
| # 600   | Dark Blue | 64284 | 64294 | 64304 |
| # 800   | Gray      | 64285 | 64295 | 64305 |
| # 1,000 | Orange    | 64286 | 64296 | 64306 |

\*Thickness 3 mm

Adhesive Back

## 20 pcs./pack Felt Disk

- Ideal for finishing using abrasives and diamond compounds.



| Description                         | ø11   | ø21   | ø31   |
|-------------------------------------|-------|-------|-------|
| Soft Type Felt Disk (1mm thickness) | 64331 | 64332 | 64333 |
| Soft Type Felt Disk (2mm thickness) | 64335 | 64336 | 64337 |

Adhesive Back

## 20 pcs./pack Felt Disk Chromium Oxide (Blue Rouge) Embedded Type.

- Useful for speedy finishing because of Chromium Oxide (Blue Rouge) Embedded.



| Description  | ø11   | ø21   | ø31   |
|--|-------|-------|-------|
| Felt Disk Chromium Oxide (Blue Rouge) Embedded Type. (2mm thickness) | 64341 | 64342 | 64343 |

Adhesive Back

## 20 pcs./pack Rubber Points Disk

- Best for coarse finishing, pre-finishing with great polishing power.



| Grit  | Color      | ø20   | ø30   |
|-------|------------|-------|-------|
| # 60  | Brown      | 64391 | 64401 |
| # 80  | Red        | 64392 | 64402 |
| # 120 | Dark Green | 64393 | 64403 |
| # 180 | Olive      | 64394 | 64404 |
| # 220 | Green      | 64395 | 64405 |
| # 320 | Brown      | 64396 | 64406 |

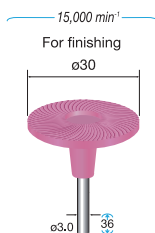
\*Thickness 3mm

Adhesive Back

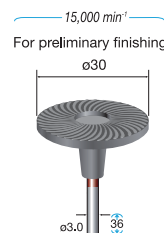
## SHANK ø3.0

### 5 pcs./pack Mounted Rubber Disks (Rubber Pad Integration)

- Moderately hard abrasive grain have great polishing ability.
- \* Rubber Disk Thickness 2.5mm



| For finishing |        |       |       |  |
|---------------|--------|-------|-------|--|
| Grit          | Color  | WA    | GC    |  |
| # 80          | Pink   | 64411 | —     |  |
| # 80          | Purple | —     | 64421 |  |
| # 120         | Blue   | 64412 | 64422 |  |
| # 180         | Yellow | 64413 | —     |  |
| # 180         | Green  | —     | 64423 |  |
| # 220         | Green  | 64414 | 64424 |  |
| # 320         | Purple | 64415 | 64425 |  |
| # 500         | Orange | 64416 | —     |  |
| # 500         | Brown  | —     | 64426 |  |



For preliminary finishing (Fast grinding)

| Grit  | Color             | WA    |
|-------|-------------------|-------|
| # 80  | Black (Red Line)  | 64431 |
| # 120 | Black (Blue Line) | 64432 |

### 1 pc./pack Diamond Disk (Fully Electroplated Type)

- Superior in sharpness and durability.



| Grit    | ø11   | ø21   | ø31   |
|---------|-------|-------|-------|
| # 100   | 64451 | 64461 | 64471 |
| # 140   | 64452 | 64462 | 64472 |
| # 200   | 64453 | 64463 | 64473 |
| # 280   | 64454 | 64464 | 64474 |
| # 400   | 64455 | 64465 | 64475 |
| # 600   | 64456 | 64466 | 64476 |
| # 800   | 64457 | 64467 | 64477 |
| # 1,000 | 64458 | 64468 | 64478 |

Adhesive Back

### 1 pc./pack Diamond Disk (Dot Electroplated Type, Wet Type)

- Electroplated nickel-alloy pellet is strongly adhered to resin base.



| Grit  | Color  | ø11   | ø21   | ø31   |
|-------|--------|-------|-------|-------|
| # 60  | Green  | 64501 | 64511 | 64521 |
| # 120 | Black  | 64502 | 64512 | 64522 |
| # 200 | Red    | 64503 | 64513 | 64523 |
| # 400 | Yellow | 64504 | 64514 | 64524 |
| # 800 | Gray   | 64505 | 64515 | 64525 |

Adhesive Back

**NAKANISHI's EXCLUSIVE TOOLS**

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

MSK Exclusive Tools

**3 pcs./pack** Resin Bond Diamond Disk  
Star Pattern

| Star Pattern | Grit  | ø 11  | ø 21  | ø 31 |
|--------------|-------|-------|-------|------|
| # 80         | 64531 | 64541 | 64551 |      |
| # 120        | 64532 | 64542 | 64552 |      |
| # 180        | 64533 | 64543 | 64553 |      |
| # 240        | 64534 | 64544 | 64554 |      |
| # 400        | 64535 | 64545 | 64555 |      |
| # 800        | 64537 | 64547 | 64557 |      |
| # 1,000      | 64538 | 64548 | 64558 |      |
| # 2,000      | 64539 | 64549 | 64559 |      |

\*Patterns maybe changed without notice

Adhesive Back

**3 pcs./pack** Lapping Film Disk  
Diamond Abrasive

| Diamond Film (Diamond) | Grit  | Color | ø 11  | ø 21  | ø 31 |
|------------------------|-------|-------|-------|-------|------|
| # 400                  | Ivory | 64601 | 64606 | 64611 |      |
| # 800                  | Ivory | 64602 | 64607 | 64612 |      |
| # 1,500                | Ivory | 64603 | 64608 | 64613 |      |
| # 3,000                | Ivory | 64604 | 64609 | 64614 |      |

Adhesive Back

**50 pcs./pack** Lapping Film Disk  
WA Abrasive

| Arandom Film (WA) | Grit   | Color | ø 11  | ø 21  | ø 31 |
|-------------------|--------|-------|-------|-------|------|
| # 320             | Pink   | 64621 | 64626 | 64631 |      |
| # 600             | Green  | 64622 | 64627 | 64632 |      |
| # 1,000           | Orange | 64623 | 64628 | 64633 |      |
| # 1,500           | Olive  | 64624 | 64629 | 64634 |      |
| # 3,000           | Violet | 64625 | 64630 | 64635 |      |

Adhesive Back

Exclusive Tools of **"90° MINI ANGLE TYPE ATTACHMENT"**



Steel cutters for radius grinding of deep cross holes for "Mini-Angle attachment". Ideal for radius grinding of holes or removing burrs from cross jigs, precision parts and inside surfaces of pipes.



MINI ANGLE TYPE  
E-max Evolution  
(Very Small Head)

MINI ANGLE TYPE  
E-max Evolution

**SHANK ø1.6**

**1 pc./pack** Steel Cutters For Deep Cross Hole Finishing

**SHANK ø1.6**

**1 pc./pack** Diamond Coated Burs For Deep Cross Hole Finishing

**5 pcs./pack** Diamond and CBN Coated Burs For Deep Cross Hole Finishing

\* 11165 is Cut Length 1.4mm.

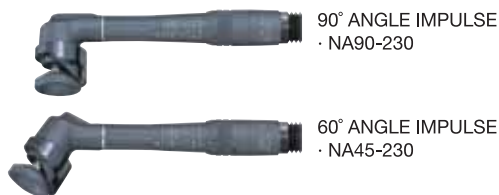


# NAKANISHI's EXCLUSIVE TOOLS

## Exclusive Tools of "IMPULSE"



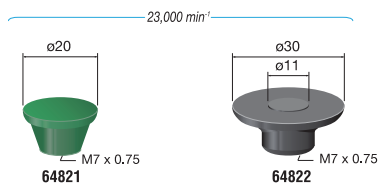
Special tools for Nakanishi Micro-grinder "IMPULSE".  
Excellent for grinding or polishing flat surfaces, edges with Nakanishi's high-power air grinder.



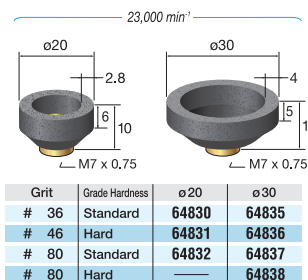
90° ANGLE IMPULSE  
· NA90-230

60° ANGLE IMPULSE  
· NA45-230

### 5 pcs./pack Special Rubber Pad for Disk Abrasives

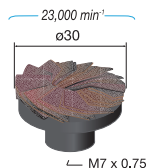


### 12 pcs./pack Cup Wheel



### 5 pcs./pack Polishing Sander

• Abrasive Disk for high speed rotation is made from overlapping abrasive cloths.

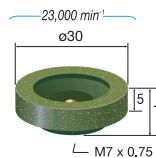


| Grit  |       |
|-------|-------|
| # 80  | 64842 |
| # 120 | 64844 |
| # 180 | 64846 |
| # 240 | 64847 |
| # 400 | 64849 |

• Convenient Assorted set for trial polishing  
All grain size (5 types x each 1 pc.)  
Total 5 pcs.-pack ..... 64850

### 10 pcs./pack Rubber Cup Wheel

• Rubber Cup Wheel with high elasticity for grinding & polishing.



| Grit  | Color |       |
|-------|-------|-------|
| # 60  | Brown | 64851 |
| # 80  | Red   | 64852 |
| # 120 | Blue  | 64853 |
| # 180 | Olive | 64854 |
| # 220 | Green | 64855 |
| # 320 | Brown | 64856 |

• Convenient Assorted set for trial polishing  
All grain size (6 types x each 2 pcs.)  
Total 12 pcs.-pack ..... 64859

## Exclusive Tools of "FINE BELT SANDER"



FINE BELT SANDER E-max Evolution

### 30 pcs./pack Abrasive Belts

• High Quality Abrasive Belts are superior in grinding & durability.



For Grinding or Polishing of Metals (Length 300 mm)

| Grit  | W = 4 mm | W = 6 mm | W = 8 mm |
|-------|----------|----------|----------|
| # 80  | 64901    | 64911    | 64921    |
| # 120 | 64902    | 64912    | 64922    |
| # 180 | 64903    | 64913    | 64923    |
| # 240 | 64904    | 64914    | 64924    |
| # 320 | 64905    | 64915    | 64925    |
| # 400 | 64906    | 64916    | 64926    |
| # 600 | —        | —        | 64927    |
| # 800 | —        | —        | 64928    |

• Assorted set for preliminary finishing (● Mark)  
Grain size (4 types x each 10 pcs.), W = 8 mm  
Total 40 pcs.-pack ..... 64931

• Assorted set for finishing (● Mark)  
Grain size (4 types x each 10 pcs.), W = 8 mm  
Total 40 pcs.-pack ..... 64932



For Woodwork (Length 300 mm)

| Grit  | 8 mm Width |
|-------|------------|
| # 80  | 64941      |
| # 120 | 64942      |
| # 240 | 64943      |

• Assorted set for woodwork  
All grain size (3 types x each 10 pcs.)  
Total 30 pcs.-pack ..... 64955

**NAKANISHI's EXCLUSIVE TOOLS**

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools

3 pcs./pack

**Diamond Belt**

• For grinding and polishing of Carbide, Hardened steel, Steel, Special steels, Ceramic, FRP, etc.



**Hard Type** (Length 300 mm)

| Grit  | 8 mm Width   |
|-------|--------------|
| # 80  | <b>65011</b> |
| # 120 | <b>65012</b> |
| # 240 | <b>65014</b> |
| # 320 | <b>65015</b> |
| # 600 | <b>65017</b> |

• **Assorted set**

All grain size (5 types x each 1 pc.)  
Total 5 pcs.-pack ..... **65019**



**Soft Type** (Length 300 mm)

| Grit  | 8 mm Width   | Grit   | 8 mm Width   |
|-------|--------------|--------|--------------|
| # 120 | <b>65021</b> | # 600  | <b>65025</b> |
| # 180 | <b>65022</b> | # 800  | <b>65026</b> |
| # 240 | <b>65023</b> | #1,000 | <b>65027</b> |
| # 320 | <b>65024</b> |        |              |
| # 400 | <b>65028</b> |        |              |

• **Assorted set**

All grain size (8 types x each 1 pc.)  
Total 8 pcs.-pack ..... **65030**

30 pcs./pack

**Silicone Belt**

• Best for polishing aluminum, stainless steel, brass



(Length 300 mm)

| Grit  | 8 mm Width   |
|-------|--------------|
| # 80  | <b>64971</b> |
| # 100 | <b>64972</b> |
| # 120 | <b>64973</b> |

• **Assorted set**

All grain size (3 types x each 10 pcs.)  
Total 30 pcs.-pack ..... **64975**

# Protective Equipments

Always use safety glasses, mask, face guard for your safety.

## Safety Eyewear

1 pack  
1 pc.



### Glasses Type

- Frame : Plastic
- Weight : 43 g

Code No.

69101



### Goggles Type

- Frame : Soft vinyl
- Weight : 31 g

Code No.

69102

## Face Shield

1 pack  
1 pc.



### Curved surface Type

- Lens : Acrylic resin
- Weight : 144 g

Code No.

69105



### Flat surface Type

- Lens : Acetate resin
- Weight : 144 g

Code No.

69106

## Disposable Dust-proof Mask

1 pack  
5 pcs.



### Dust-proof mask with exhaust valve

|                   | Code No. |
|-------------------|----------|
| Head-mounted type | 69112    |
| Ear-mounted type  | 69115    |

# TOOLS & SOLUTIONS

EKA[Co]mmerce - Toolexperience auf neuem Niveau

**Website** - digitale Informationsplattform

**Webshop** - B2B-Einkaufsplattform mit vielen Features

**EKA-App** - mobile Version von Webshop und Website

**Newsletter** - digitale Informationsübermittlung

**Website-Chat** - Echtzeit-Interaktion mit Experten

**EKA-Toolbox** - technische Kalkulationen und Berechnungen





Headquarters • Factory  
700 Shimohinata, Kanuma, Tochigi 322-8688, Japan  
TEL +81-289-64-3620 FAX +81-289-62-1135

[www.nakanishi-inc.com](http://www.nakanishi-inc.com)  
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Erich Klingseisen KG Brunnenstraße 2 78554 Aldingen

Tel. (07424) 98192-0  
[info@klingseisen.de](mailto:info@klingseisen.de)

Fax. (07424) 84601  
[www.klingseisen.de](http://www.klingseisen.de)