

NAKANISHI POLISHING TOOLS

POLISHING TOOLS



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NAKANISHI INC. 2018



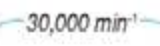

PR-K318E Ver.12 '18.11.03.Ⓒ

Specifications and design are subject to change without notice.



Nature of Tochigi, Japan

Symbols used in NAKANISHI Tools Catalogue

	Shank Diameter Shows shank diameter of the tools. Nakanishi produces tools with several shank diameters. *Nakanishi micro grinders utilize a collet system, which insures maximum precision. Therefore, please use the collet that best corresponds to the tool shank diameter.
	Standard Package 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.
	Maximum allowable speed 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. *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. *Check the tools and machinery for mechanical defects prior to each use.
	Grit This shows grain size of various grinding tools. Rough Cutting..... 46, 54, 60, 70, 80, 90 Medium Cutting..... 100, 120, 150, 180 Pre Finishing..... 220, 240, 280, 320, 400 Finishing..... 500, 600, 700, 800, 1000 Fine Finishing and Mirror Polishing..... 1200, 1500, 1800, 2000, 3000, 4000, 6000, 8000 ...

First code number on each page

Shank diameter of the tool

Code number (Order number)

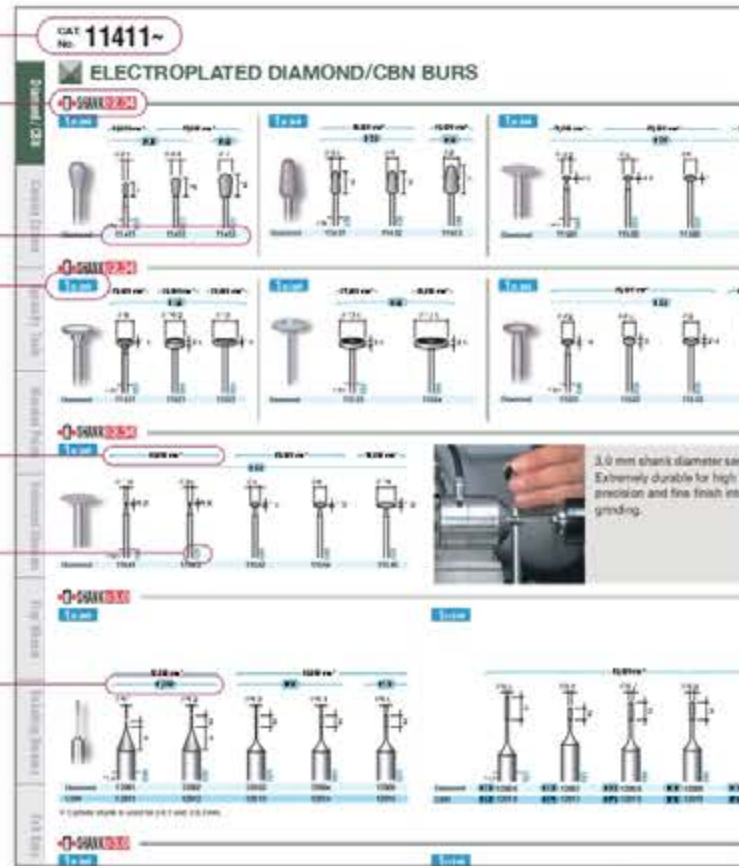
Standard package quantity

Maximum allowable speed

Total length of the tool (mm)

Grit

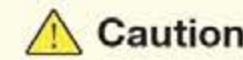
Note : Specifications may be changed without notice. Colors of the tools in this catalogue may not be the same as actual colors due to printing limitations.



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 ⁻¹)
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

Types of Abrasive Grain

Diamond

Main Applications ----- Suitable for grinding non-ferrous metals and non-metals ; rubber, plastic, FRP, FPM, 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)

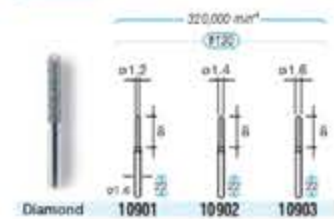
- Steel : carbon steel tools (SK), high speed steel (SKH), tool steel alloys (SKS, SKD), bearing steels (SUJ), structural alloy steels (SCM, SNOM, Sor and SACM), heat resistant steels (SUH) and stainless steels (SUS3 and SUS 4)
- Alloy : Ultra heat resistant cobalt alloys (haynes alloy, stellite, airerist, walex and inconel) Ultra heat resistant nickel alloys (inconel, hastelloy, Colmoy, and waspaby)
- 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.

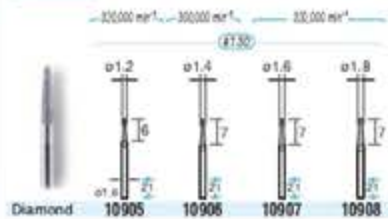
SHANK Ø1.6

5 pcs./pak



Diamond 10901 10902 10903

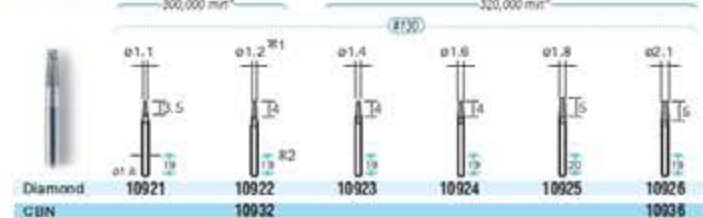
5 pcs./pak



Diamond 10905 10906 10907 10908

SHANK Ø1.6

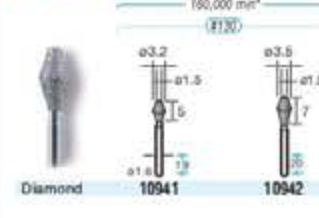
5 pcs./pak



Diamond 10921 10922 10923 10924 10925 10926
CBN 10932 10936

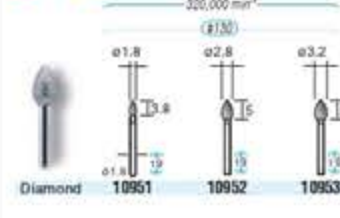
*1: 10932 is diameter Ø1.3.
*2: 10932 is Total Length 20mm.

5 pcs./pak



Diamond 10941 10942

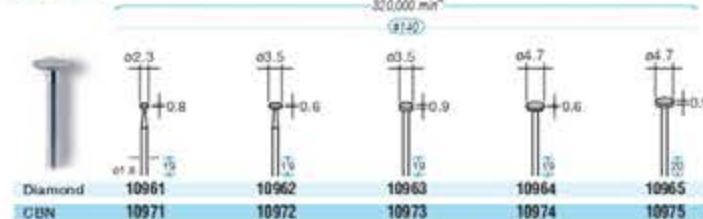
5 pcs./pak



Diamond 10951 10952 10953

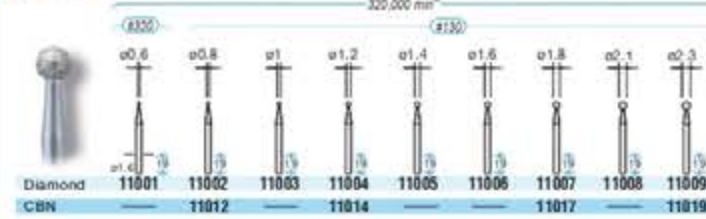
SHANK Ø1.6

5 pcs./pak



Diamond 10961 10962 10963 10964 10965
CBN 10971 10972 10973 10974 10975

5 pcs./pak



Diamond 11001 11002 11003 11004 11005 11006 11007 11008 11009
CBN 11012 11014 11017 11019

SHANK Ø1.6

5 pcs./pak



Diamond 11031 11032 11033 11034 11035 11036 11037 11038 11039 11040 11041
CBN 11051 11052 11053 11054 11055 11056 11058 11060 11061

5 pcs./pak



Diamond 11075 11076
CBN 11078

* 11078 is Total Length 21mm.

5 pcs./pak



Diamond 11081 11082

5 pcs./pak



Diamond 11091 11092
CBN 11095 11096

* 11091 is Total Length 22mm.

ELECTROPLATED DIAMOND/CBN BURS

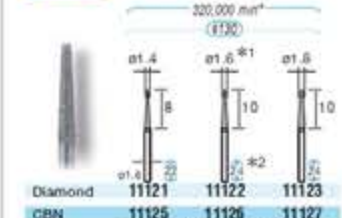
SHANK Ø1.6

5 pcs./pak



Diamond 11101 11102 11103
CBN 11106

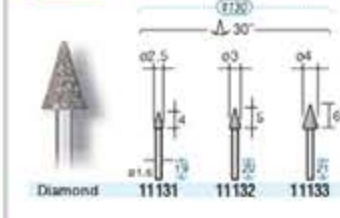
5 pcs./pak



Diamond 11121 11122 11123
CBN 11125 11126 11127

*1: 11126 is diameter Ø1.5.
*2: 11126 is Total Length 21mm.

1 pc./pak



Diamond 11131 11132 11133

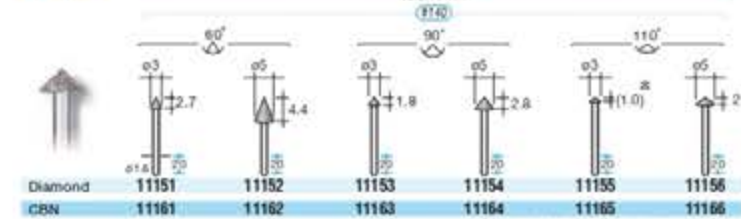
5 pcs./pak



Diamond 11141 11142

SHANK Ø1.6

5 pcs./pak



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

* 11165 is Cut Length 1.4.



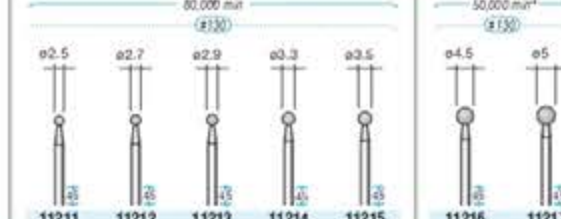
2.34 mm shank diameter series.
Best for engraving, or precise burrs removal.

SHANK Ø2.34

1 pc./pak



Diamond 11201 11202 11203 11204 11205 11206 11207 11208 11209 11210



11211 11212 11213 11214 11215 11216 11217

SHANK Ø2.34

1 pc./pak



Diamond 11221 11222



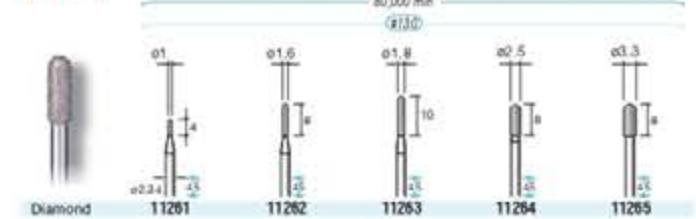
Diamond 11225 11226 11227



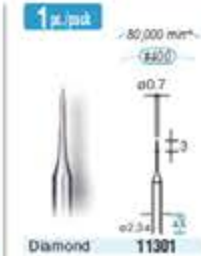
Diamond 11241 11242 11243 11244 11245 11246 11247 11248 11249 11250

SHANK Ø2.34

1 pc./pak



Diamond 11261 11262 11263 11264 11265



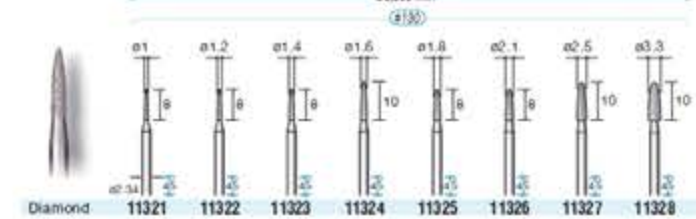
Diamond 11301 11305



Diamond 11311 11312 11313 11314

SHANK Ø2.34

1 pc./pak



Diamond 11321 11322 11323 11324 11325 11326 11327 11328



Diamond 11331 11332 11333 11334 11335 11336 11337

ELECTROPLATED DIAMOND/CBN BURS

SHANK Ø2.34

1 pc./pack

Diamond 11341 11342

SHANK Ø2.34

1 pc./pack

Diamond 11351 11352 11353 11354 11355 11356 11357 11358 11359

SHANK Ø2.34

1 pc./pack

Diamond 11401 11402 11403 11404 11405 11406 11412 11413

SHANK Ø2.34

1 pc./pack

Diamond 11425 11426 11431 11432 11433 11441

SHANK Ø2.34

1 pc./pack

Diamond 11501 11502 11503 11504 11511 11521 11522

SHANK Ø2.34

1 pc./pack

Diamond 11531 11532 11533 11534 11541 11542 11543 11544 11545

ELECTROPLATED DIAMOND/CBN BURS



SHANK Ø3.0

1 pc./pack

Diamond	11803	11804	11805	11806	11807	11808
CBN	11823	11824	11825	11826	11827	11828

SHANK Ø3.0

1 pc./pack

Diamond	11853	11854	11855	11856	11857	11858
CBN	11873	11874	11875	11876	11877	11878

SHANK Ø3.0

1 pc./pack

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

* Carbide shank is used for ø 0.1 and ø 0.2 mm.

SHANK Ø3.0

1 pc./pack

Diamond	12006	12007	12008	12009	12010
CBN	12016	12017	12018	12019	12020

SHANK Ø3.0

1 pc./pack

Diamond	12051	12052	12053	12054	12055	12056	12057	12058
CBN	12151	12152	12153	12154	12155	12156	12157	12158

SHANK Ø3.0

1 pc./pack

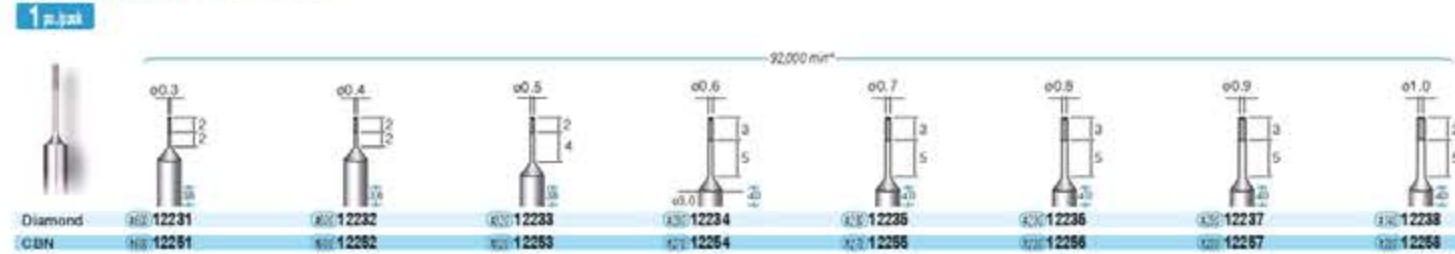
Diamond	12059	12060	12061	12062	12063	12064	12065
CBN	12179	12180	12181	12182	12183	12184	12185

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 Ø3.0 Carbide



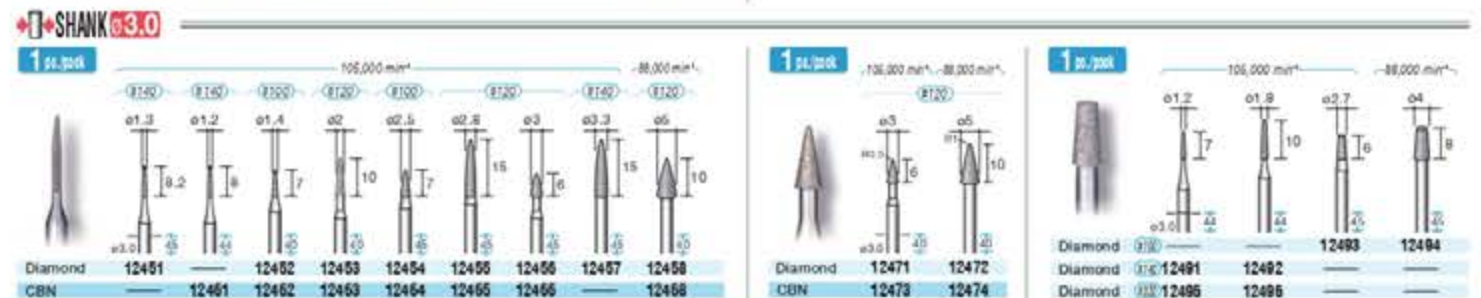
SHANK Ø3.0 Carbide



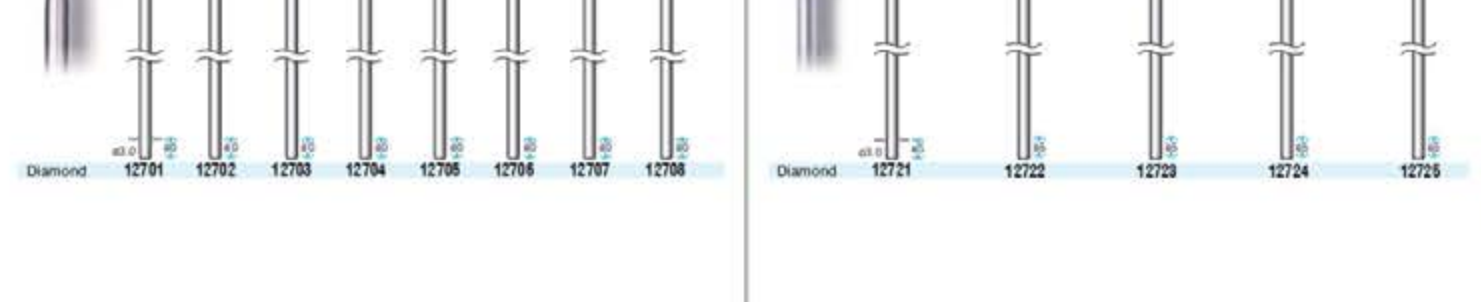
3.0 mm shank diameter series. Extremely durable for high precision burr removal and fine finishing.



ELECTROPLATED DIAMOND/CBN BURS



3.0 mm shank diameter long shank series. Useful for grinding deep holes and grooves.



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

ELECTROPLATED DIAMOND/CBN BURS

SHANK Ø3.0
1 pc./pack

Diamond 12741 12742 12743 12744

SHANK Ø3.0
1 pc./pack

Diamond 12745 12746 12747 12748



SHANK Ø3.0
3 pcs./pack

Diamond 12801 12802 12803 12804 12805 12806 12807 12808 12809

SHANK Ø3.0
3 pcs./pack

Diamond 12811 12812 12813 12814 12815

SHANK Ø3.0
3 pcs./pack

Diamond 12816 12817 12818 12819

SHANK Ø3.0
3 pcs./pack

Diamond 12821 12822 12823 12824 12825

SHANK Ø3.0
18 pcs./pack Assorted Set

Diamond 12826 12827 12828 12829

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



SHANK Ø6.0
1 pc./pack

Diamond 13011 13012 13013 13014

Length	L=50	L=50	L=55	L=86
Diamond (F100)	13011	13012	13013	13014
CBN (F140)	13101	13102	13103	13104

SHANK Ø6.0
1 pc./pack

Diamond 13015 13016 13017 13018 13019

Length	L=60	L=50	L=87	L=50	L=88	L=55	L=89	L=60	L=90	L=80	L=80
Diamond (F100)	13035	13015	13036	13016	13037	13017	13038	13018	13039	13040	13019
CBN (F140)	13125	13105	13126	13106	13127	13107	13128	13108	13129	13130	13109

ELECTROPLATED DIAMOND/CBN BURS

SHANK Ø6.0
1 pc./pack

Diamond 13020 13041 13042 13021 13022

Length	L=60	L=90	L=60	L=80	L=60
Diamond (F100)	13020	13041	13042	13021	13022
CBN (F140)	13110	13131	13132	13111	13112

SHANK Ø6.0
1 pc./pack

Diamond 13201 13202 13203 13204 13205

Length	L=60	L=60	L=60	L=60	L=60
Diamond	13201	13202	13203	13204	13205
CBN	13206	13207	13208	13209	13210

SHANK Ø6.0
1 pc./pack

Diamond 13241 13242 13243

Length	L=60	L=60	L=60
Diamond	13241	13242	13243
CBN	13246	13247	13248

SHANK Ø6.0
1 pc./pack

Diamond 13261 13262 13263

Length	L=60	L=60	L=60
Diamond	13261	13262	13263
CBN	13266	13267	13268

SHANK Ø6.0
1 pc./pack

Diamond 13301 13302

Length	L=60	L=60
Diamond	13301	13302
CBN	13302	13302

SHANK Ø6.0
1 pc./pack

Diamond 13321 13322

Length	L=60	L=60
Diamond	13321	13322
CBN	13326	13326

SHANK Ø6.0
1 pc./pack

Diamond 13340 13341 13342 13343

Length	L=60	L=60	L=60	L=60
Diamond	13340	13341	13342	13343
CBN	13344	13345	13346	13346

SHANK Ø6.0
1 pc./pack

Diamond 13351 13352 13353 13354

Length	L=60	L=60	L=60	L=60
Diamond	13351	13352	13353	13354
CBN	13355	13356	13357	13358

SHANK Ø6.0
1 pc./pack

Diamond 13371 13372

Length	L=60	L=60
Diamond	13371	13372
CBN	13375	13375

SHANK Ø6.0
1 pc./pack

Diamond 13381 13382

Length	L=60	L=60
Diamond	13381	13382
CBN	13385	13386

SHANK Ø2.34
1 pc./pack

Twist type : 15,000 min⁻¹

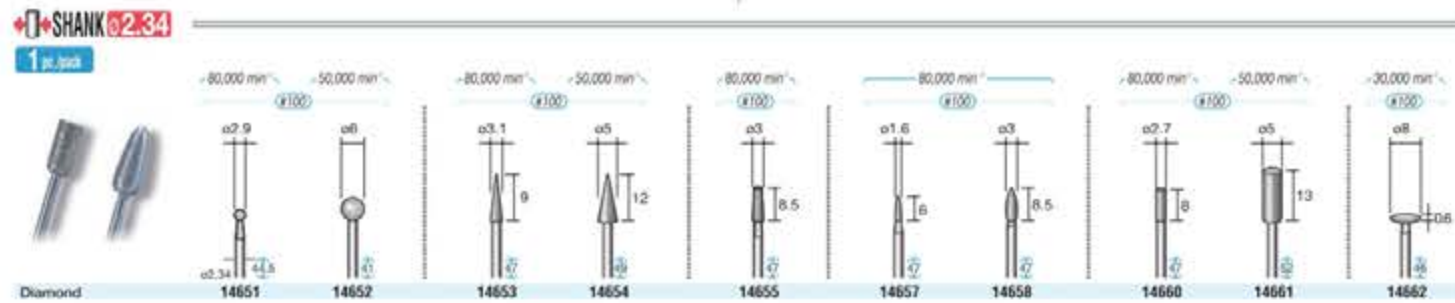
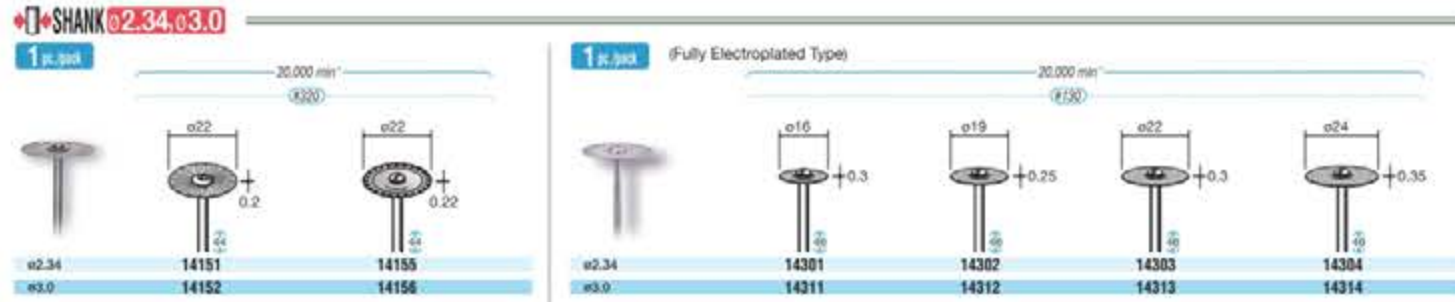
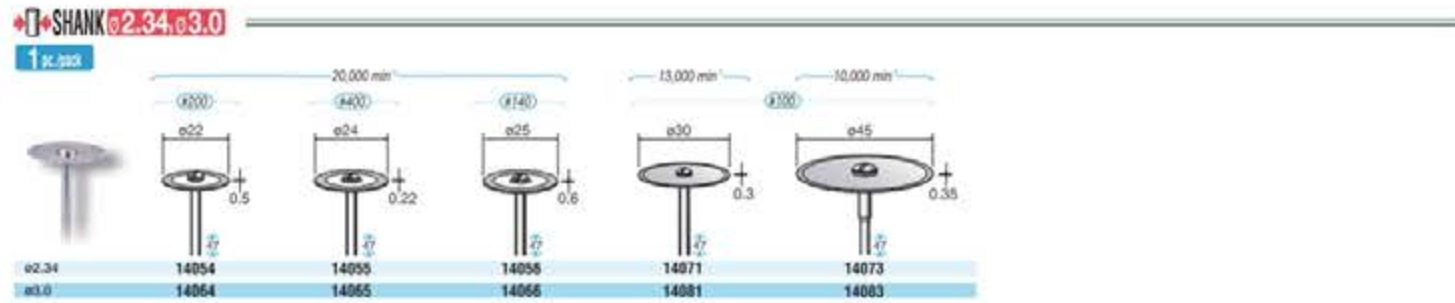
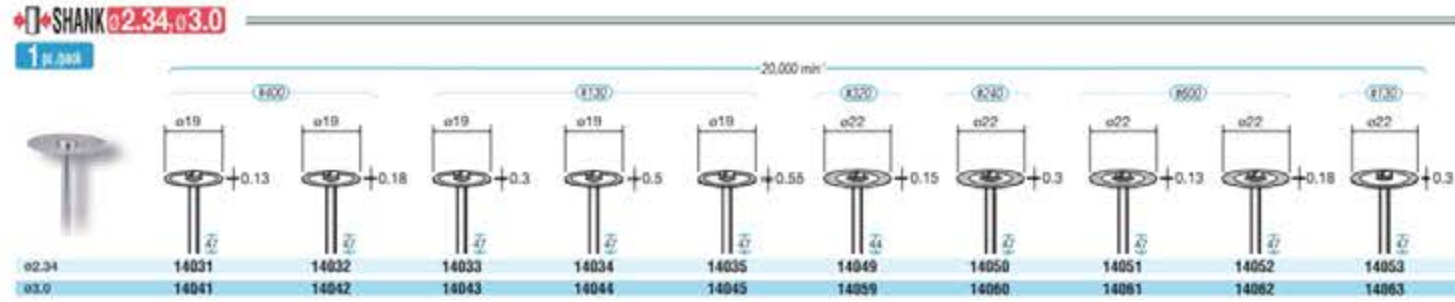
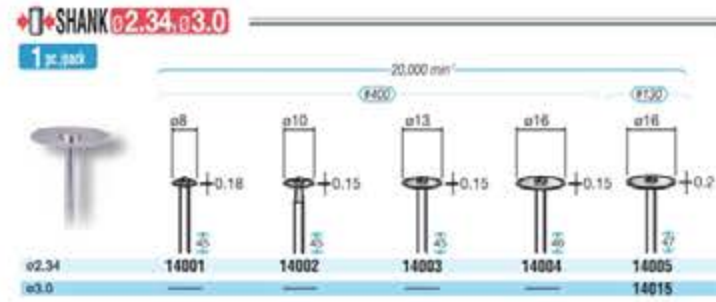
Diamond 13851 13852 13853 13854 13855 13856 13857 13858

Ø	L	Part No.
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



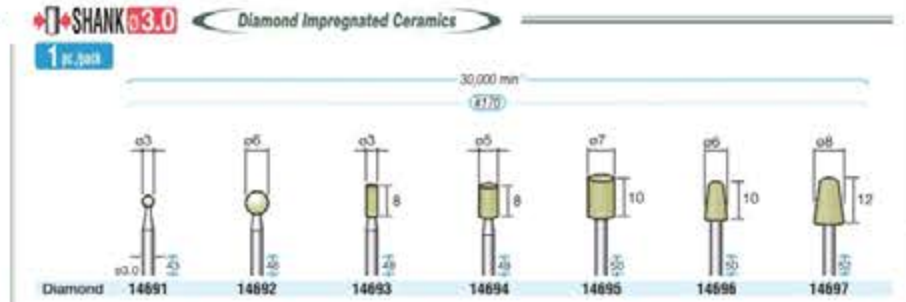
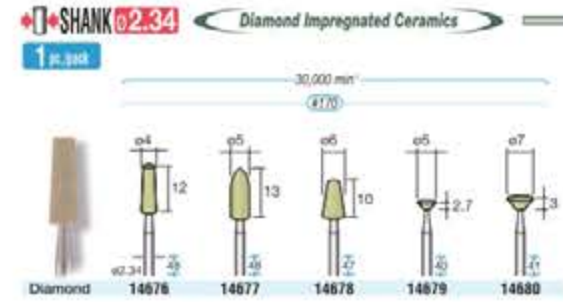
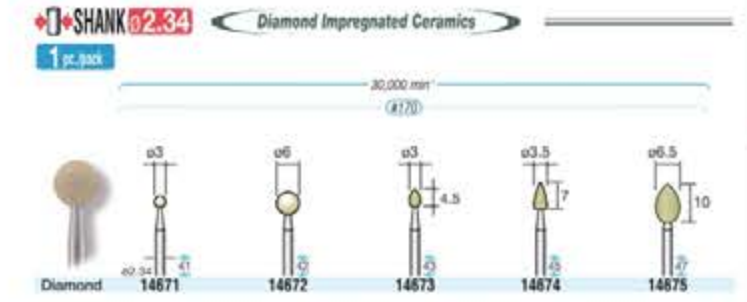
2.34 / 3.0 mm shank diameters. Diamond grinding discs, ideal for ceramics, FRP, glass, ferrites, various stones, and super hard alloys.



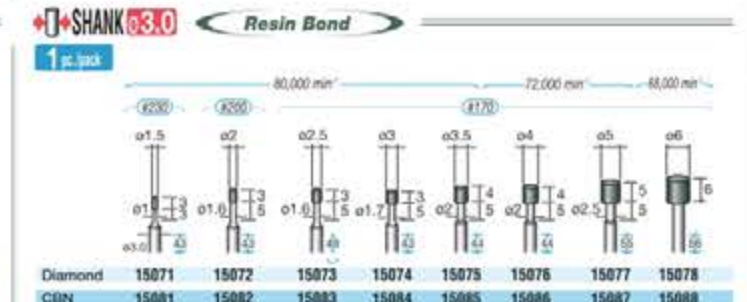
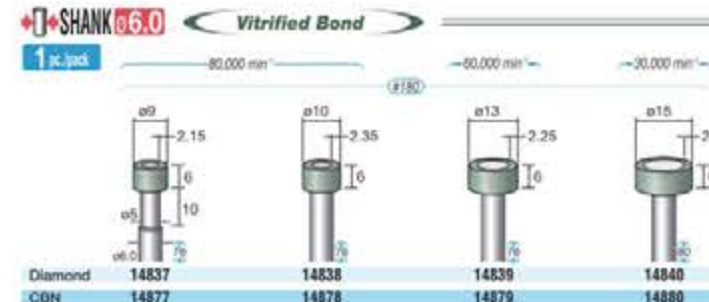
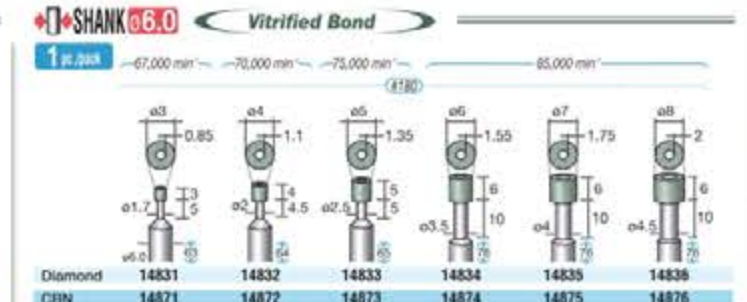
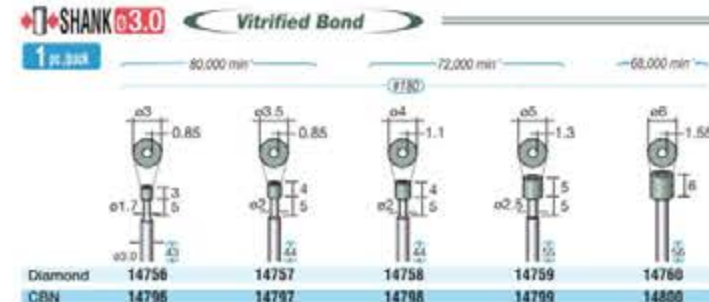
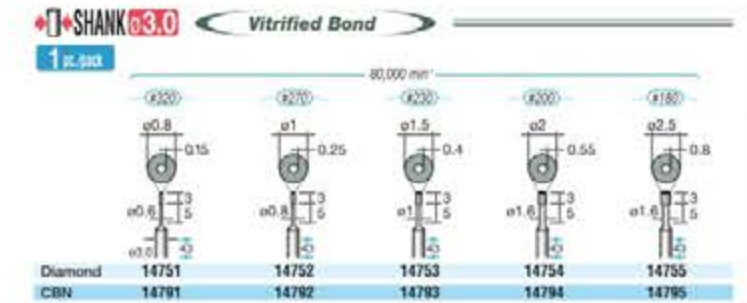
VITRIFIED / RESIN BONDED DIAMOND / CBN AND DIAMOND IMPREGNATED CERAMIC BARS



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



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



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 Ø6.0 Resin Bond

1 pc./pack

Diamond	15101	15102	15103	15104	15105
CBN	15111	15112	15113	15114	15115

SHANK Ø3.0

12 pc./pack Assorted Set

15305	
Set (12 pieces) (Each code No. one piece-pack)	
12317	12403
12320	12405
12336	12412
12341	12415
12355	12451
12401	12482

SHANK Ø3.0

10 pc./pack Assorted Set

15311		15312	
Set (10 pieces) (Each code No. one piece-pack)		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

SHANK Ø3.0

8 pc./pack Assorted Set

15321		15322	
Set (8 pieces) (Each code No. one piece-pack)		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

SHANK Ø3.0

8 pc./pack Assorted Set

15331		15332	
Set (8 pieces) (Each code No. one piece-pack)		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

CARBIDE CUTTERS

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

<p>Single Cut (1)</p> <p>Single cut produces superior surface finishes. * ø1.6, ø2.34, ø3.0, ø6.0</p>	<p>Single Cut Coarse (2)</p> <p>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. * ø2.34, ø3.0</p>	<p>Chip Breaker (3)</p> <p>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. * ø1.6, ø2.34</p>	<p>Alumina Cut (4)</p> <p>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. * ø6.0</p>
<p>Double Cut (5)</p> <p>Smooth Cut with small tooth design minimizes chatter. This tool also helps enhance safety as it produces very small chips. * ø2.34, ø3.0, ø6.0</p>	<p>Double Cut Coarse (6)</p> <p>Deep helix design prevents tool loading. Ideal for grinding hard rubbers, resins and plaster. * ø2.34</p>	<p>Diamond Cut Fine (7)</p> <p>Diamond Cut Fine (7) has similar characteristics as Double Cut (5). Specially designed for very hard materials. Produces fine surface finish. * ø2.34, ø3.0</p>	<p>Diamond Cut Coarse (8)</p> <p>Specially designed for very hard materials. Produces fine surface finish. * ø3.0, ø6.0</p>

Titanium coating insures long tool life and minimizes tool loading.

SHANK Ø3.0

1 pc./pack Double Cut

SHANK Ø3.0

1 pc./pack Double Cut

1 pc./pack Single Cut

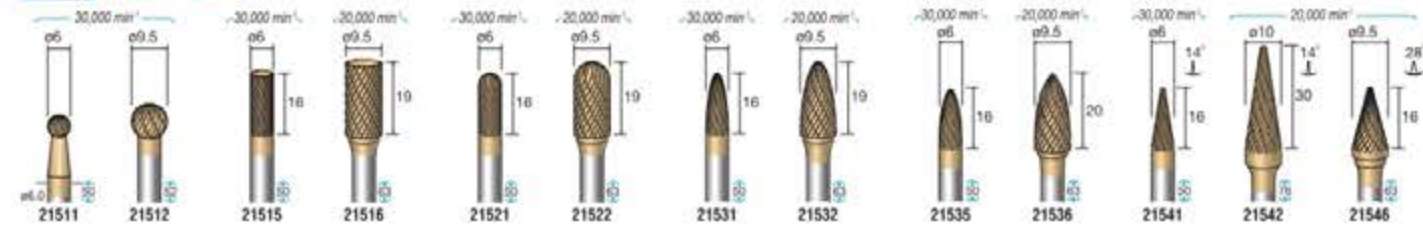
SHANK Ø3.0

1 pc./pack Single Cut

CARBIDE CUTTERS

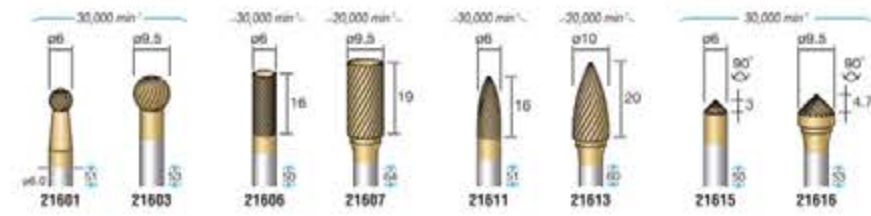
1 pc./pack **SHANK $\phi 6.0$**

Double Cut



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

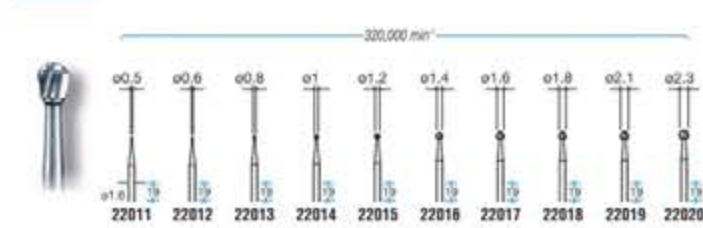
Single Cut



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

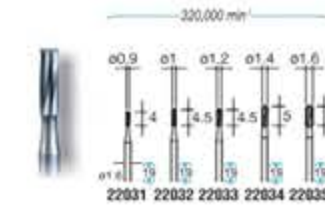
5 pcs./pack **SHANK $\phi 1.6$**

Single Cut Round Type



5 pcs./pack **SHANK $\phi 1.6$**

Single Cut Straight Type



Chip Breaker Straight Type



Single Cut Ball Tip Straight Type



Chip Breaker Ball Tip Straight Type

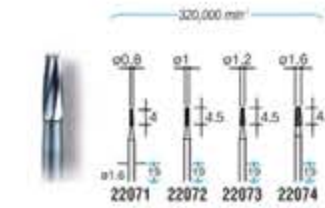


Double Cut Ball Tip Straight Type

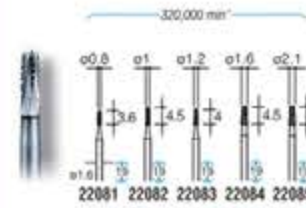


5 pcs./pack **SHANK $\phi 1.6$**

Single Cut Tapered Type



Chip Breaker Tapered Type



Single Cut



Single Cut

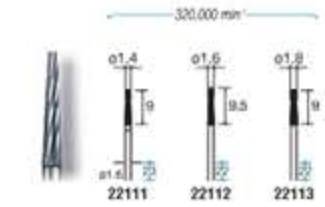


Double Cut Ball Point Tapered Type

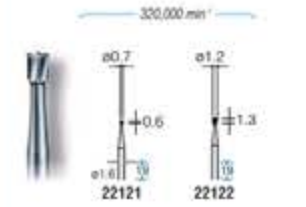


5 pcs./pack **SHANK $\phi 1.6$**

Single Cut



Single Cut



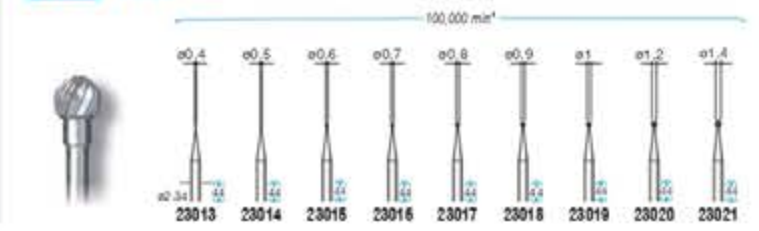
CARBIDE CUTTERS



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

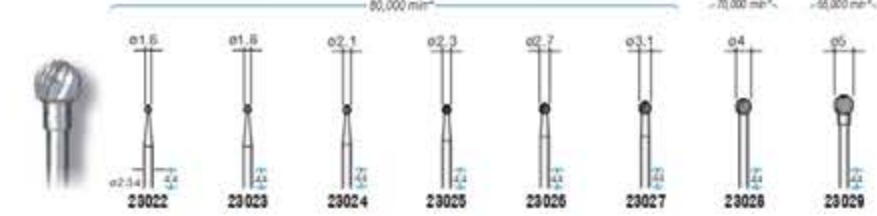
1 pc./pack **SHANK $\phi 2.34$**

Single Cut

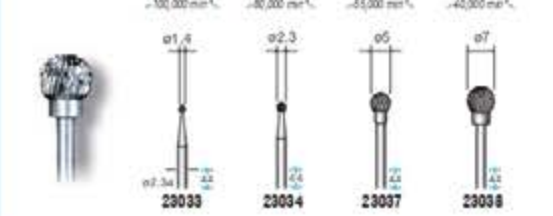


1 pc./pack **SHANK $\phi 2.34$**

Single Cut



1 pc./pack **Double Cut**



1 pc./pack **SHANK $\phi 2.34$**

Single Cut



Diamond Cut



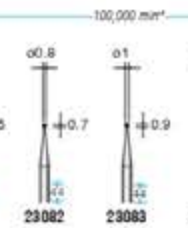
Diamond Cut



Single Cut End Cut

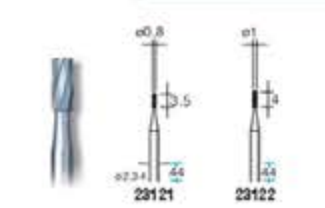


Diamond Cut End Cut



1 pc./pack **SHANK $\phi 2.34$**

Single Cut Straight Type



Single Cut Tapered Type

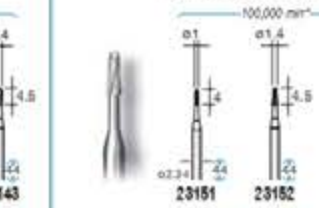


1 pc./pack **SHANK $\phi 2.34$**

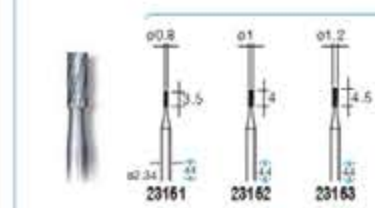
Single Cut Ball Tip Straight Type



Single Cut Ball Tip Tapered Type



Chip Breaker Straight Type



1 pc./pack **SHANK $\phi 2.34$**

Chip Cut Tapered Type



Chip Cut Ball Tip Straight Type



CARBIDE CUTTERS

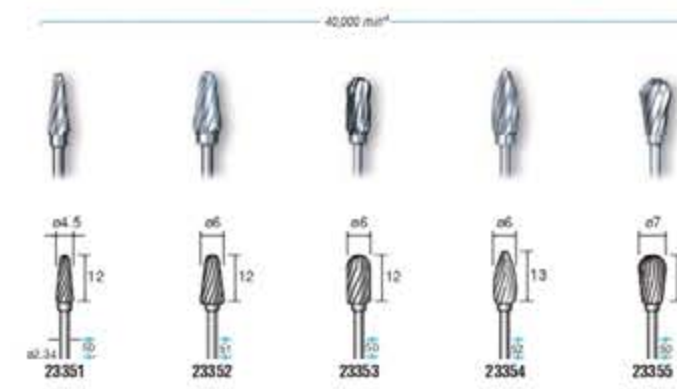
SHANK **Ø2.34**

1 pc./pack Single Cut



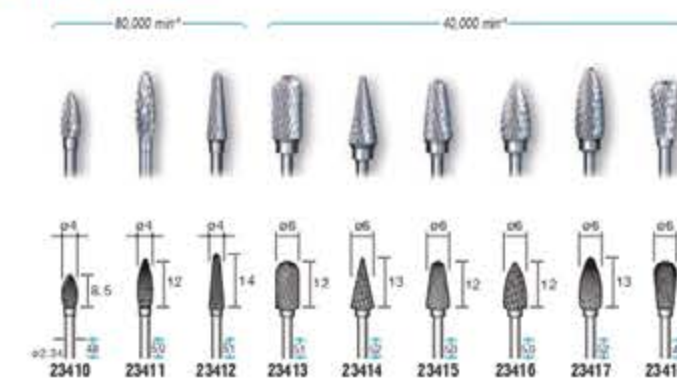
SHANK **Ø2.34**

1 pc./pack Single Cut



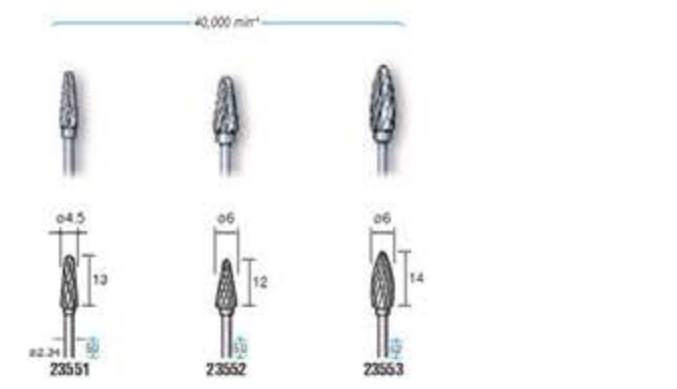
SHANK **Ø2.34**

1 pc./pack Double Cut

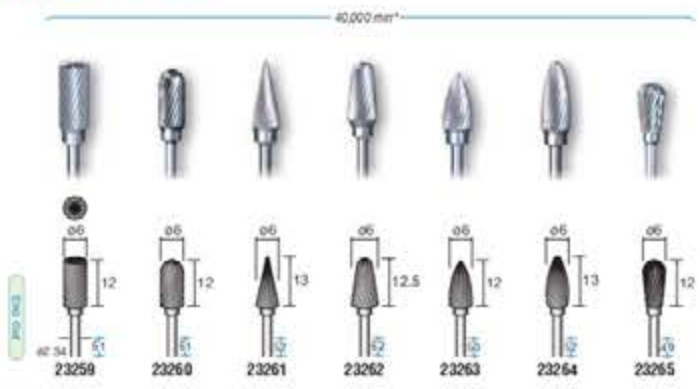


SHANK **Ø2.34**

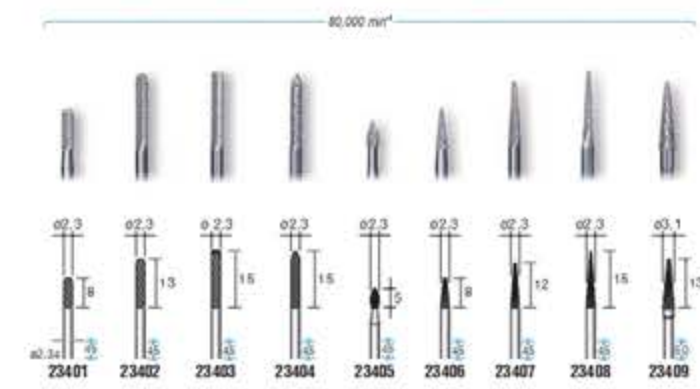
1 pc./pack Double Cut <Rough>



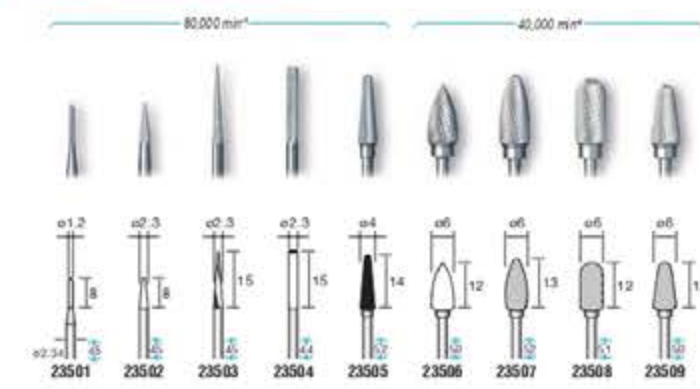
1 pc./pack Single Cut



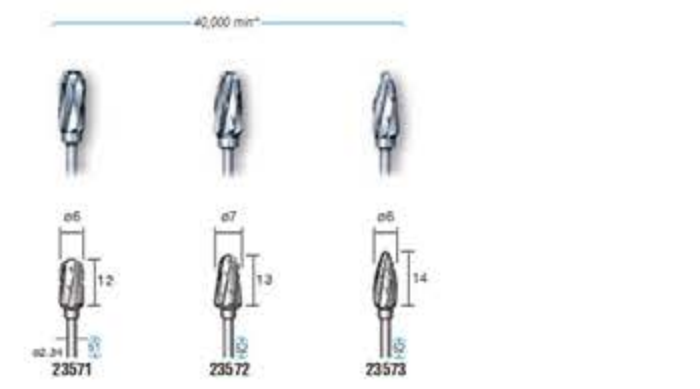
1 pc./pack Double Cut



1 pc./pack Diamond Cut <Fine>



1 pc./pack Double Cut <Super Rough>



CARBIDE CUTTERS

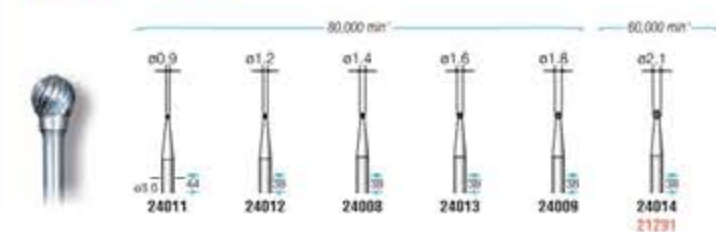
Orange code numbers indicate Titanium-Coated Type.



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

SHANK **Ø3.0**

1 pc./pack Single Cut

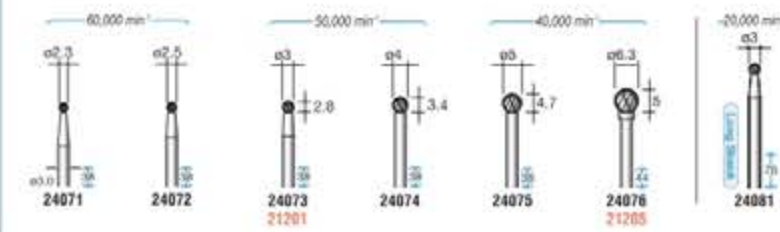


SHANK **Ø3.0**

1 pc./pack Single Cut

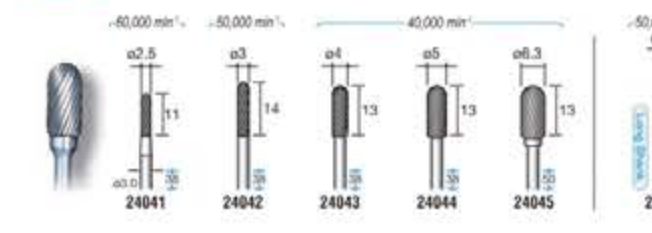


1 pc./pack Double Cut

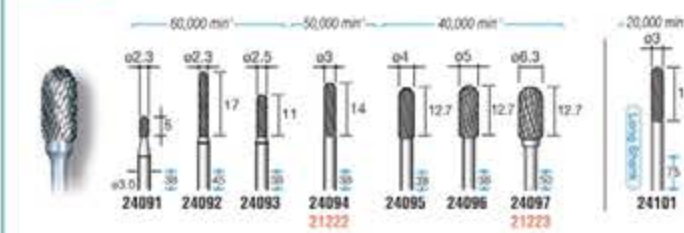


SHANK **Ø3.0**

1 pc./pack Single Cut

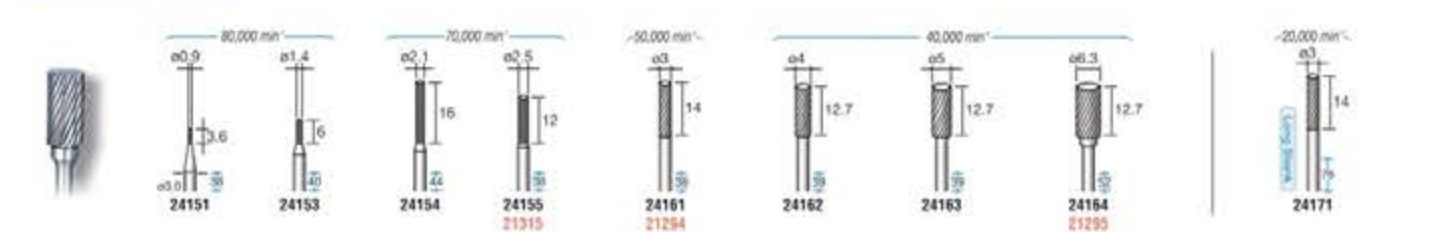


1 pc./pack Double Cut



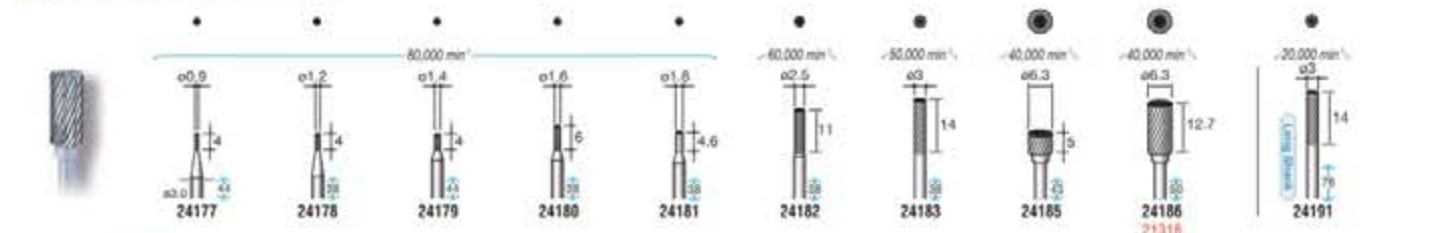
SHANK **Ø3.0**

1 pc./pack Single Cut



SHANK **Ø3.0**

1 pc./pack Single Cut End Cut



SHANK **Ø3.0**

1 pc./pack Double Cut



1 pc./pack Diamond Cut

CARBIDE CUTTERS

Orange code numbers indicate Titanium-Coated Type.

SHANK Ø3.0

1 pc./pack Double Cut End Cut

80,000 min⁻¹ 80,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24231 24232 24233 24234 24235 24241

21219 21218

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24261 24262 24263 24271

SHANK Ø3.0

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24281 24282 24283 24284 24291

21324

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24301 24302 24303 24304 24305 24311

21321 21322 21323

SHANK Ø3.0

1 pc./pack Double Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24321 24322 24323 24331

24231 24232 24233 24235 24331

1 pc./pack Double Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24341 24342 24343 24344 24351

21241 21242 21243 21244 21245

SHANK Ø3.0

1 pc./pack Double Cut

80,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24361 24362 24363 24364 24365 24366 24371

21261 21262 21265

1 pc./pack Single Cut

80,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24402 24403 24411

21296 21297 21298

SHANK Ø3.0

1 pc./pack Single Cut

40,000 min⁻¹ 40,000 min⁻¹ 80,000 min⁻¹

24425 24435 24450

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24451 24452 24453 24454 24461

21318 21319 21297 21297

SHANK Ø3.0

1 pc./pack Single Cut

80,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹

24471 24472 24473 24474 24475 24476

21299

1 pc./pack Single Cut

40,000 min⁻¹ 50,000 min⁻¹

24485 24491 24492 24493 24494

CARBIDE CUTTERS

Orange code numbers indicate Titanium-Coated Type.

SHANK Ø3.0

1 pc./pack Single Cut

50,000 min⁻¹

24496 24497

1 pc./pack Double Cut

60,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 30,000 min⁻¹

24501 24502 24503 24504 24506

21251 21252 21253

1 pc./pack Diamond Cut

40,000 min⁻¹

24525

SHANK Ø3.0

1 pc./pack Double Cut

40,000 min⁻¹

24515

1 pc./pack Diamond Cut

60,000 min⁻¹

24551

1 pc./pack Double Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24531 24532 24533 24534 24541

21271 21272 21273 21275

SHANK Ø3.0

1 pc./pack Double Cut

40,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹

24561 24562 24563 24564 24565

1 pc./pack Double Cut

40,000 min⁻¹

24572

1 pc./pack Double Cut

50,000 min⁻¹

24581 24582

SHANK Ø3.0

1 pc./pack Alloy Cut End Cut

60,000 min⁻¹

24611 24612 24621 24622 24623 24631 24632 24635 24636 24641 24642 24645

SHANK Ø3.0

1 pc./pack Alloy Cut

80,000 min⁻¹

24646 24651 24652 24653 24654 24661 24662 24663

12 pc./pack Assorted Set

24601

Set (12 pieces)
(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 Ø6.0

1 pc./pack Alloy Cut

30,000 min⁻¹ 20,000 min⁻¹ 30,000 min⁻¹ 25,000 min⁻¹ 20,000 min⁻¹

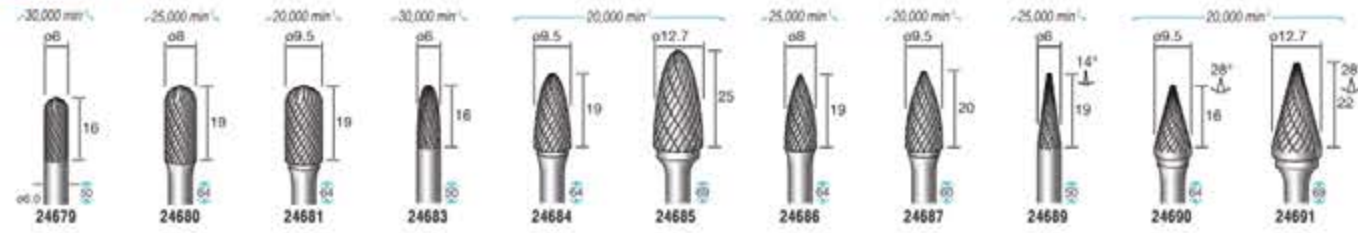
24670 24671 24672 24673 24674 24675 24676 24677 24678

CARBIDE CUTTERS

Orange code numbers indicate Titanium-Coated Type.

SHANK $\phi 6.0$

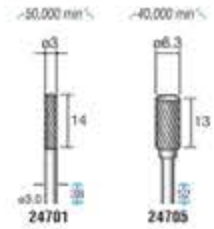
Alloy Cut



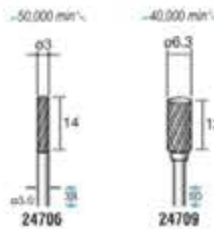
Left Handed
Left handed carbide cutters. For left handed grinders and a wide variety of automated machines.

SHANK $\phi 3.0$ Left Handed

Single Cut

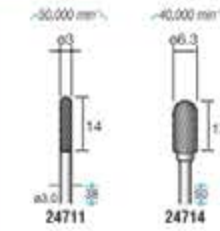


Double Cut



SHANK $\phi 3.0$ Left Handed

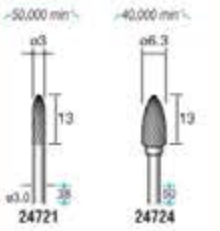
Single Cut



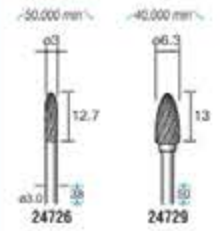
Double Cut



Single Cut



Double Cut

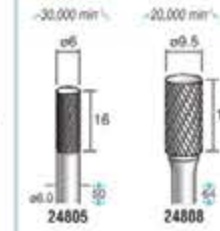


SHANK $\phi 6.0$ Left Handed

Single Cut

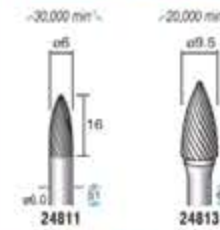


Double Cut



SHANK $\phi 6.0$ Left Handed

Single Cut



Double Cut



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

SHANK $\phi 6.0$

Single Cut

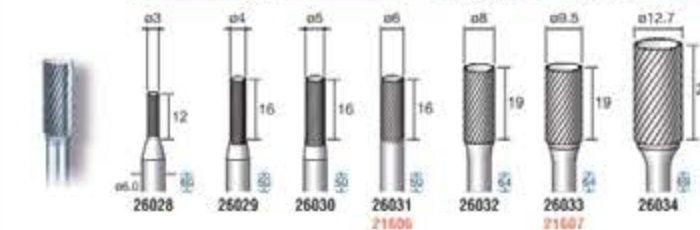


Double Cut

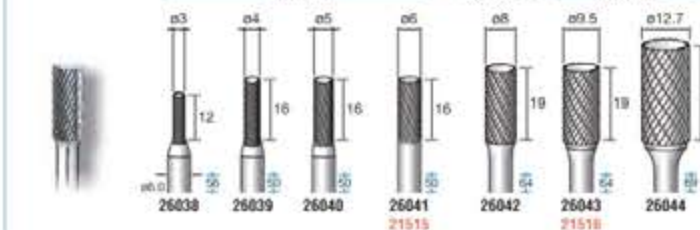


SHANK $\phi 6.0$

Single Cut



Double Cut

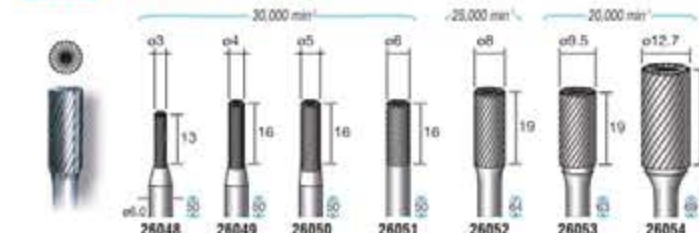


CARBIDE CUTTERS

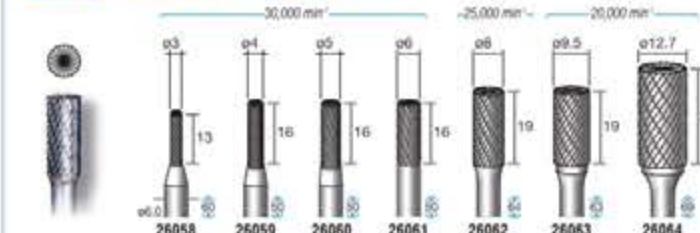
Orange code numbers indicate Titanium-Coated Type.

SHANK $\phi 6.0$

Single Cut

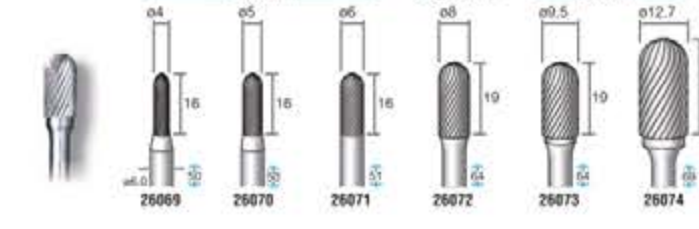


Double Cut

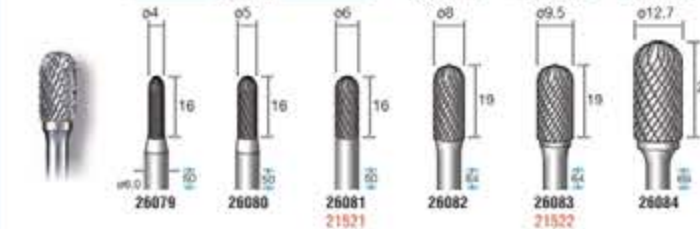


SHANK $\phi 6.0$

Single Cut

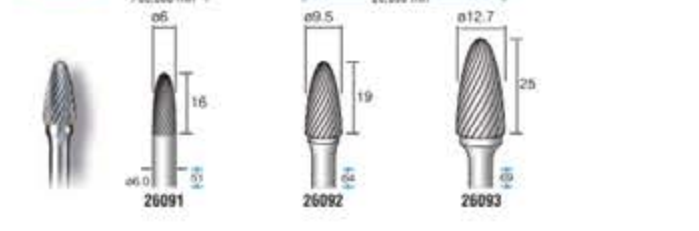


Double Cut

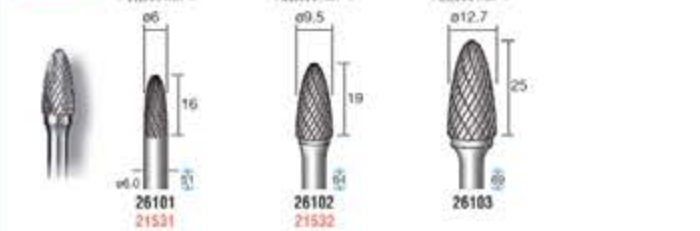


SHANK $\phi 6.0$

Single Cut

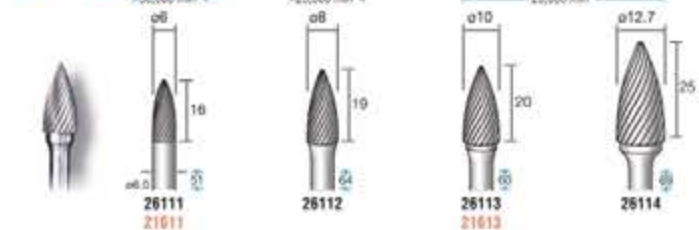


Double Cut

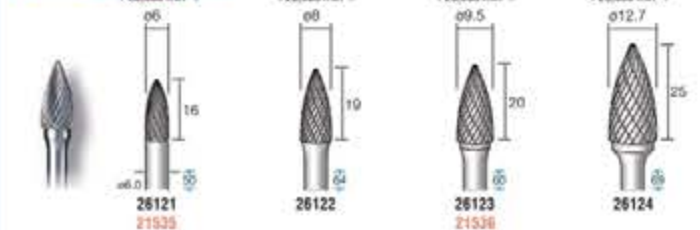


SHANK $\phi 6.0$

Single Cut



Double Cut

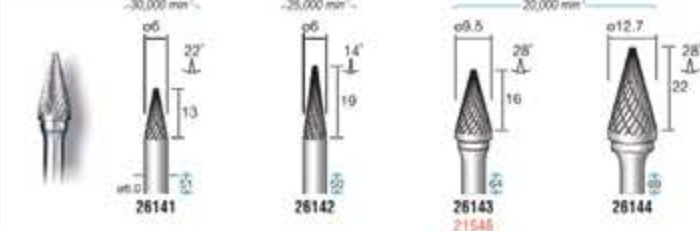


SHANK $\phi 6.0$

Single Cut

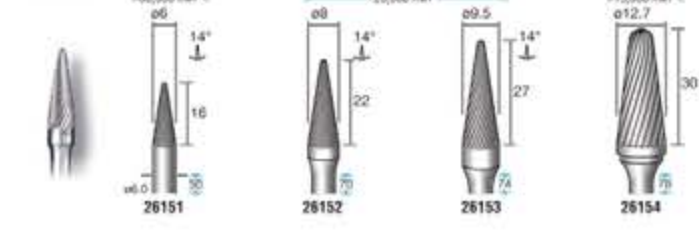


Double Cut

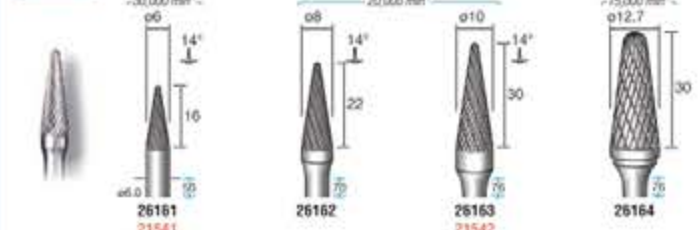


SHANK $\phi 6.0$

Single Cut



Double Cut



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

CARBIDE CUTTERS • Orange code numbers indicate Titanium-Coated Type.

SHANK $\phi 6.0$

1 pc./pak Single Cut

1 pc./pak Double Cut

SHANK $\phi 6.0$

1 pc./pak Single Cut

1 pc./pak Double Cut

SHANK $\phi 6.0$

1 pc./pak Single Cut

1 pc./pak Double Cut

SHANK $\phi 6.0$

1 pc./pak Single Cut

1 pc./pak Double Cut

SHANK $\phi 6.0$

1 pc./pak Double Cut

1 pc./pak Double Cut

1 pc./pak Double Cut

CARBIDE CUTTERS

SHANK $\phi 6.0$

1 pc./pak Double Cut

1 pc./pak Double Cut

SHANK $\phi 6.0$

1 pc./pak Single Cut

1 pc./pak Single Cut End Cut

1 pc./pak Single Cut

SHANK $\phi 6.0$

1 pc./pak Single Cut

1 pc./pak Single Cut

1 pc./pak Single Cut

SHANK $\phi 3.0, \phi 6.0$

1 pc./pak Diamond Cut

1 pc./pak Diamond Cut Drill End

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

1 pc./pak

D= $\phi 1.0$ Length=30		D= $\phi 1.5$ Length=30		D= $\phi 2.0$ Length=38		D= $\phi 2.5$ Length=43	
d (mm)	L (mm)	d (mm)	L (mm)	d (mm)	L (mm)	d (mm)	L (mm)
0.5	4.0	0.6	6.3	1.5	11.2	2.0	12.0
0.6	4.5	0.9	7.1	1.6	12.0	2.1	12.0
0.7	5.8	1.0	9.0	1.7	12.0	2.2	12.0
		1.1	9.0	1.8	12.0	2.3	12.0
		1.2	10.0	1.9	12.0	2.4	12.0
		1.3	10.0	2.0	12.0		
		1.4	11.2				

CARBIDE CUTTERS

SHANK $\phi 3.0$

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



28111 Titanium Coating	
Set (12 pieces) (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 Titanium Coating	
Set (8 pieces) (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) (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) (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) (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) (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) (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) (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) (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



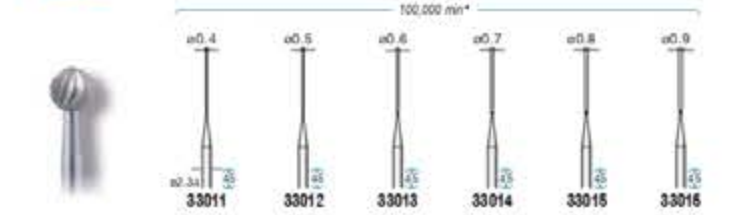
1 pc./pack



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

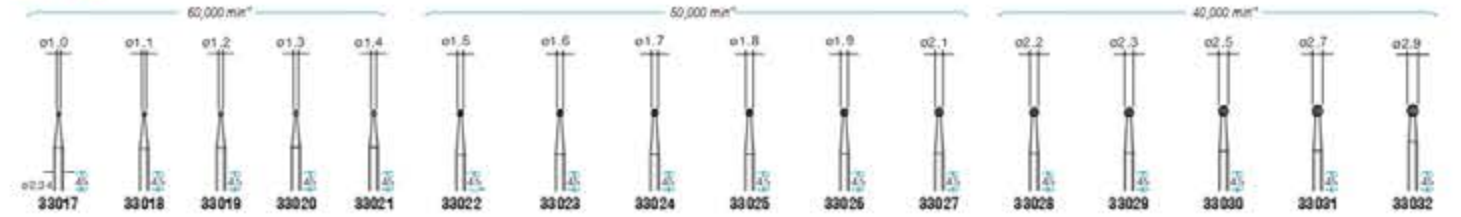
SHANK $\phi 2.34$

12 pcs./pack



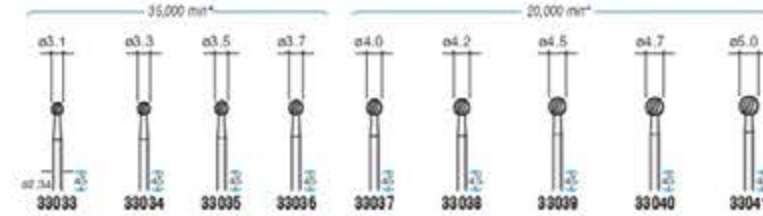
SHANK $\phi 2.34$

12 pcs./pack



SHANK $\phi 2.34$

12 pcs./pack



SHANK $\phi 2.34$

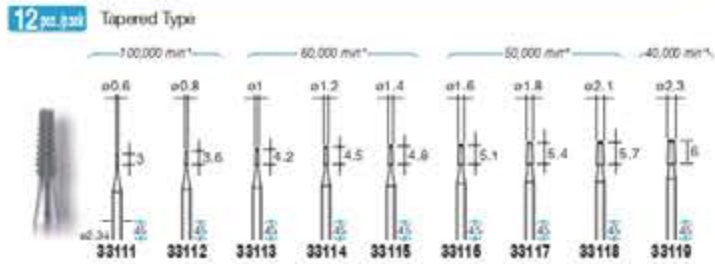
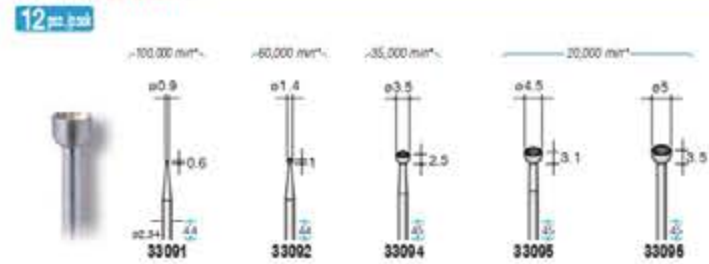
12 pcs./pack



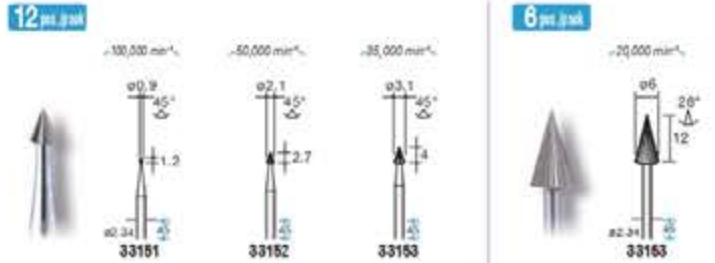
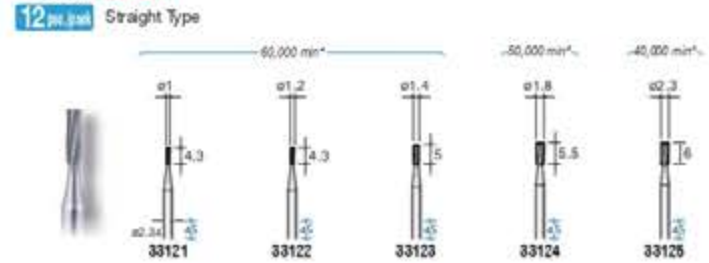
* Order in standard package quantities.

SPECIALTY TOOLS

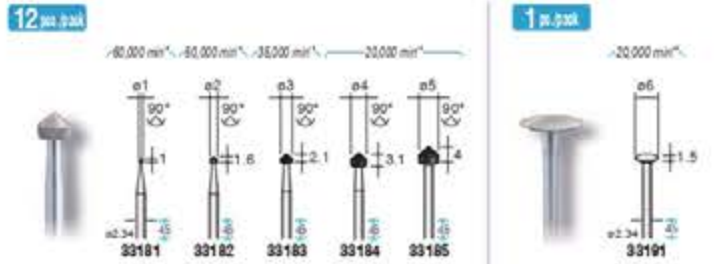
SHANK 2.34



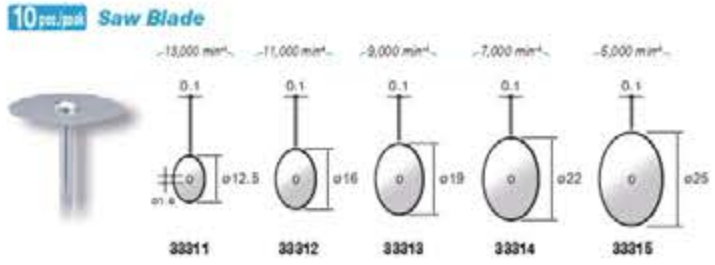
SHANK 2.34



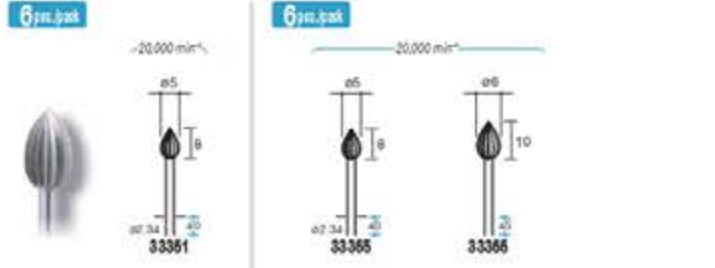
SHANK 2.34



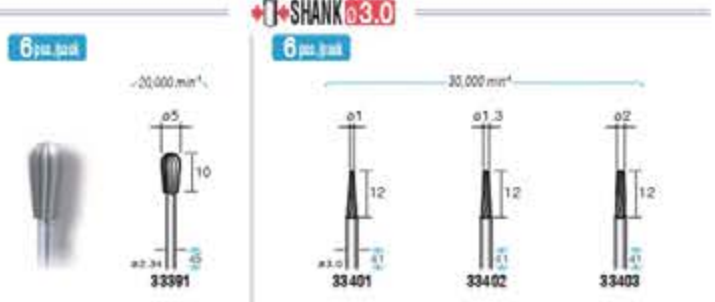
SHANK 2.34



SHANK 2.34



SHANK 2.34



SPECIALTY TOOLS

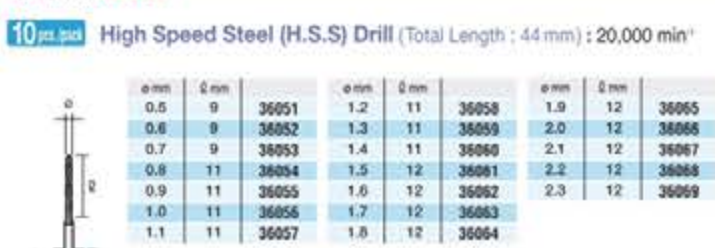


Tempered Steel Drills for plastics and woods. High Speed Steel Drills for steels and stainless steels, Carbide Drills for PCB, FRP.

SHANK 2.34



SHANK 2.34



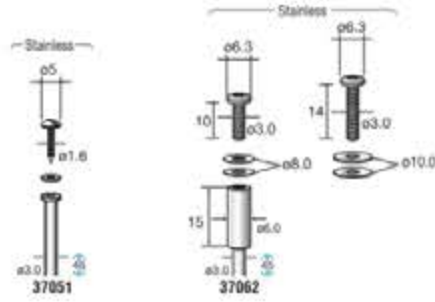
•φ0.5-2.3 mm each 1 pc. Full Size Set (No. 36051 - 36069 ; 19 pcs. - pack) ; Special case provided 36070

SPECIALTY TOOLS

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



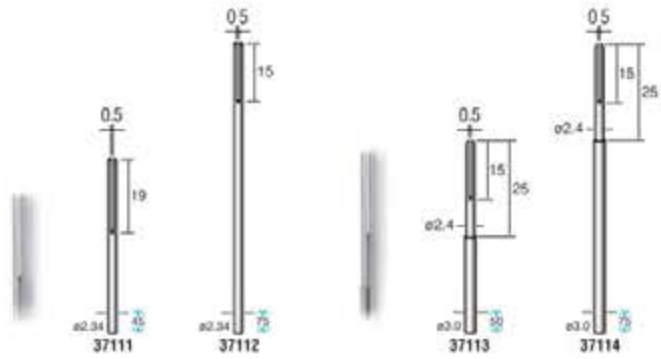
SHANK $\phi 3.0$
10 pcs./pack Mandrels 3 pcs./pack Mandrels



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



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



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.

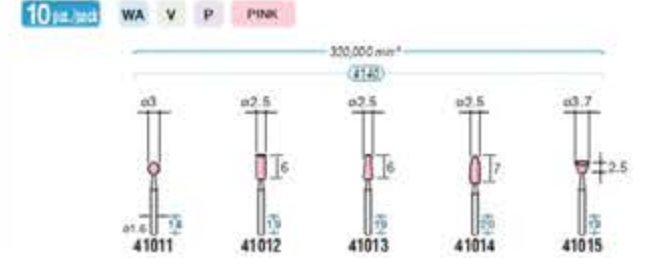
Hardness Grade

E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	~	Z
← Very soft		← Soft		← Medium		← Hard		← Very Hard									

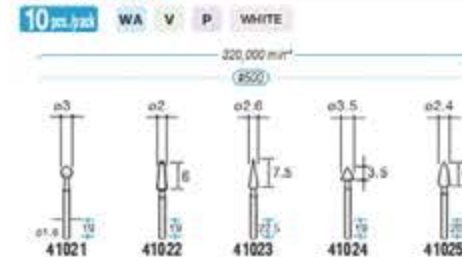


1.6 mm shank diameter series. Short Shank Type grindstones for high-speed rotation. Ideal for very small parts.

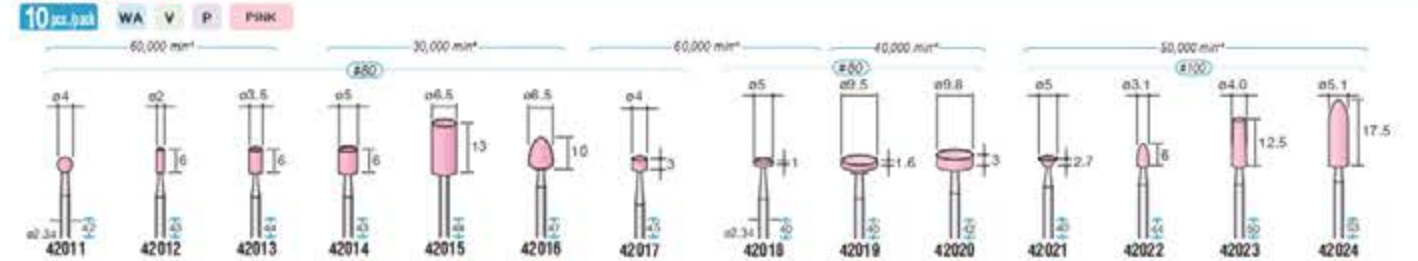
SHANK $\phi 1.6$
10 pcs./pack



SHANK $\phi 1.6$
10 pcs./pack



SHANK $\phi 2.34$
10 pcs./pack



SHANK $\phi 2.34$
10 pcs./pack



MOUNTED POINTS

SHANK 02.34
10 pcs./pack GC V M GREEN

60,000 min⁻¹ 30,000 min⁻¹ 60,000 min⁻¹

42101 42102 42103 42104 42105 42106 42107



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

SHANK 03.0
10 pcs./pack GC V M GREEN

30,000 min⁻¹ 40,000 min⁻¹ 50,000 min⁻¹

42108 42109 42110 42111 42112 42113 42114

SHANK 03.0
10 pcs./pack WA V P PINK

105,000 min⁻¹ 70,000 min⁻¹ 50,000 min⁻¹

Grit
#80 42411 42412 42413 42414 42415 42416 42417 42418 42419 42420
#150 42421 42422 42423 42424 42425 42426 42427 42428 42429 42430

SHANK 03.0
10 pcs./pack WA V P PINK

30,000 min⁻¹ 50,000 min⁻¹

Grit
#80 42441 42442 42443 42444 42445 42446
#150 42451 42452 42453 42454 42455 42456 42457 42458 42459

SHANK 03.0
10 pcs./pack PA V N PINK

105,000 min⁻¹ 70,000 min⁻¹ 45,000 min⁻¹ 35,000 min⁻¹

42481 42482 42483 42484 42485 42486 42487 42488 42489 42490

SHANK 03.0
10 pcs./pack WA V P WHITE

70,000 min⁻¹ 50,000 min⁻¹ 45,000 min⁻¹ 30,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 45,000 min⁻¹ 35,000 min⁻¹

42531 42532 42533 42534 42535 42536 42537 42538

SHANK 03.0
10 pcs./pack WA V P RED

105,000 min⁻¹ 70,000 min⁻¹ 45,000 min⁻¹ 35,000 min⁻¹

42601 42602 42603 42604 42605 42606 42607 42608 42609 42610

SHANK 03.0
10 pcs./pack PAH V Q PINK

105,000 min⁻¹ 70,000 min⁻¹ 60,000 min⁻¹ 45,000 min⁻¹

42611 42612 42613 42614 42615 42616 42617 42618 42619

SHANK 03.0
10 pcs./pack PA V P BLUE

105,000 min⁻¹ 70,000 min⁻¹ 45,000 min⁻¹ 35,000 min⁻¹

Grit
#80 42631 42632 42633 42634 42635 42636 42637
#150 42641 42642 42643

MOUNTED POINTS

SHANK 03.0
10 pcs./pack WA V P PINK

10,000 min⁻¹ 6,000 min⁻¹ 8,000 min⁻¹

42651 42652 42653 42654

SHANK 03.0
10 pcs./pack A WA B Q BROWN

105,000 min⁻¹ 70,000 min⁻¹ 45,000 min⁻¹ 35,000 min⁻¹ 20,000 min⁻¹

42731 42732 42733 42734 42735 42736 42737 42738 42739

SHANK 06.0
10 pcs./pack WA V Q PINK

6.0 mm shank diameter series.
High quality finishing grindstones.

SHANK 03.0
10 pcs./pack GC V M GREEN

105,000 min⁻¹ 70,000 min⁻¹ 60,000 min⁻¹ 50,000 min⁻¹

Grit
#80 42663 42665 42667 42668 42670
#150 42681 42682 42683 42684 42685 42686 42687 42688 42689 42690

SHANK 03.0
10 pcs./pack GC V M GREEN

30,000 min⁻¹ 70,000 min⁻¹ 50,000 min⁻¹

42691 42692 42693 42694 42695 42696

SHANK 03.0
10 pcs./pack A B Q BLACK

105,000 min⁻¹ 70,000 min⁻¹ 45,000 min⁻¹ 20,000 min⁻¹

42741 42742 42743 42744 42745 42746 42747 42748 42749

SHANK 06.0
10 pcs./pack WA V Q PINK

100,000 min⁻¹ 90,000 min⁻¹ 80,000 min⁻¹ 60,000 min⁻¹

42811 42812 42813 42814 42815 42816 42817 42818

SHANK 06.0
10 pcs./pack WA V Q PINK

50,000 min⁻¹ 30,000 min⁻¹ 25,000 min⁻¹ 60,000 min⁻¹ 30,000 min⁻¹

Grit
#80 42821 42822 42823 42824 42825 42826 42841 42842 42843 42844 42845 42846
#150 42833 42834 42835 42836 42851 42852 42853 42854 42855 42856

SHANK 06.0
10 pcs./pack GC V M GREEN

100,000 min⁻¹ 90,000 min⁻¹ 80,000 min⁻¹ 60,000 min⁻¹ 30,000 min⁻¹

42861 42862 42863 42864 42865 42866 42867 42868 42871 42872 42873 42874 42875 42876

MOUNTED POINTS

SHANK Ø6.0
10 pcs./set GC V M GREEN

30,000 min⁻¹ 25,000 min⁻¹ 60,000 min⁻¹ 30,000 min⁻¹

42881 42882 42883 42884 42885 42886

SHANK Ø6.0
10 pcs./set AWA B Q BROWN

60,000 min⁻¹ 40,000 min⁻¹ 30,000 min⁻¹ 25,000 min⁻¹

42901 42902 42903 42904 42905 42906 42907 42908

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

SHANK Ø6.0
10 pcs./set A B Q BLACK

60,000 min⁻¹ 40,000 min⁻¹ 30,000 min⁻¹ 25,000 min⁻¹

42911 42912 42913 42914 42915 42916 42917 42918

SHANK Ø3.0
10 pcs./set WA

60,000 min⁻¹ 15,000 min⁻¹ 12,000 min⁻¹ 60,000 min⁻¹

43101 43103 43104 43105 43106

SHANK Ø2.34
18 pcs./set Assorted Set

43401

Set (18 pieces) (Each code No. one piece-pack)	
WA	GC
Ø60 42011	Ø100 42101
Ø80 42012	Ø100 42102
Ø60 42013	Ø100 42103
Ø80 42014	Ø100 42104
Ø60 42016	Ø100 42108
Ø80 42018	Ø100 42110

SHANK Ø3.0
18 pcs./set Assorted Set

43405

Set (18 pieces) (Each code No. one piece-pack)	
WA	PA
Ø100 42421	Ø100 42428
Ø100 42422	Ø100 42430
Ø100 42423	Ø100 42454
Ø100 42424	Ø100 42455
Ø100 42425	Ø100 42456
Ø100 42427	Ø100 42489

SHANK Ø3.0
15 pcs./set Assorted Set

43410

Set (15 pieces) (Each code No. one piece-pack)	
PAW	PA
Ø60 42612	Ø100 42616
Ø80 42613	Ø100 42617
Ø100 42614	Ø100 42618
Ø100 42615	Ø100 42619
Ø60 42631	Ø100 42632
Ø80 42633	Ø100 42634
Ø60 42635	Ø100 42636
Ø80 42637	Ø100 42637

SHANK Ø3.0
12 pcs./set Assorted Set

43415

Set (12 pieces) (Each code No. one piece-pack)	
GO	
Ø100 42681	Ø100 42688
Ø100 42682	Ø100 42690
Ø100 42683	Ø100 42692
Ø100 42684	Ø100 42694
Ø100 42685	Ø100 42695
Ø100 42687	Ø100 42696

RUBBERIZED ABRASIVES

SHANK Ø1.6
10 pcs./set WA Silicon Polisher

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

SHANK Ø1.6
10 pcs./set WA Silicon Polisher

30,000 min⁻¹

46011 46012 46013 46014 46015

SHANK Ø2.34
10 pcs./set WA GC Green Polisher

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

SHANK Ø3.0
10 pcs./set WA High Shine Polisher

60,000 min⁻¹ 24,000 min⁻¹ 15,000 min⁻¹ 24,000 min⁻¹ 20,000 min⁻¹ 24,000 min⁻¹

46211 46215 46221 46225 46231 46235
46212 46216 46222 46226 46232 46236
46213 46217 46223 46227 46233 46237

SHANK Ø2.34
10 pcs./set WA GC Green Polisher

60,000 min⁻¹ 30,000 min⁻¹ 20,000 min⁻¹ 15,000 min⁻¹ 1,000 min⁻¹ 2,000 min⁻¹ 20,000 min⁻¹ 10,000 min⁻¹

46111 46115 46121 46125 46131 46135 46151 46155
46112 46116 46122 46126 46132 46136 46152 46156
46113 46117 46123 46127 46133 46137 46153 46157

SHANK Ø2.34
10 pcs./set WA Silicon Polisher

60,000 min⁻¹ 20,000 min⁻¹ 15,000 min⁻¹ 15,000 min⁻¹ 30,000 min⁻¹

46311 46315 46322 46326 46331 46342 46346
46312 46316 46323 46327 46343 46347
46313 46317 46324 46328 46344 46348
46314 46318 46325 46329 46345 46349

* 46344, 46345, 46348, 46349 is diameter Ø1.2.
* 46344, 46345, 46348, 46349 is Total Length 42mm.
* 46311, 46314 is Total Length 50mm.

SHANK Ø3.0
10 pcs./set WA Power Polisher

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

SHANK Ø3.0
10 pcs./set WA Power Polisher

60,000 min⁻¹ 30,000 min⁻¹ 20,000 min⁻¹

46501 46505 46521 46525 46541 46545
46502 46506 46522 46526 46542 46546
46503 46507 46523 46527 46543 46547
46504 46508 46524 46528 46544 46548
46505 46509 46525 46529 46545 46549
46506 46510 46530 46534 46546 46550

* 46516 is Total Length 15mm. * 46516 is Total Length 45mm.

RUBBERIZED ABRASIVES

SHANK 3.0

10 pcs./set WA GC Green Polisher

Abrasive Power: 30,000 min⁻¹, 40,000 min⁻¹, 30,000 min⁻¹

Grinding Power: ★★★★★

Rubber Hardness: Medium

Grit	Color	46721	46731	46741	46751	46761	46771
120	Light Green	46721	46731	46741	46751	46761	46771
220	Mid Green	46722	46732	46742	46752	46762	46772
330	Mid Green	46724	46734	46744	46754	46764	46774
450	Mid Green	46723	46733	46743	46753	46763	46773

10 pcs./set WA High Shine Polisher

Abrasive Power: 30,000 min⁻¹, 24,000 min⁻¹, 20,000 min⁻¹

Grinding Power: ★★★★★

Rubber Hardness: Hard

Grit	Color	46802	46812	46822	46832
120	Blue	46802	46812	46822	46832
220	Green	46805	46815	46825	46835
330	Violet	46803	46813	46823	46833
450	Brown	46804	46814	46824	46834

SHANK 3.0

10 pcs./set WA Green Polisher

Abrasive Power: ★★★★★

Grinding Power: ★★★★★

Rubber Hardness: Medium

Grit	Color	46881	46871
120	Green	46881	46871
180	Green	46882	46872
330	Green	46883	46873
480	Green	46884	46874

10 pcs./set WA Long Reach Power Polisher

Abrasive Power: 10,000 min⁻¹, 6,000 min⁻¹, 5,000 min⁻¹, 4,500 min⁻¹

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
330	Brown	46905	46915	46925	46935

SHANK 3.0

10 pcs./set WA Special Rubber Grindstone For High-Speed Rotation (For 60,000min⁻¹)

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⁻¹.

- Micro Air Grinder "IMPULSE".....Max. Speed: 60,000min⁻¹
- Brushless Micro-Grinder "ESPERT 500".....Max. Speed: 50,000min⁻¹

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
330	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./set

Abrasive Power: 30,000 min⁻¹, 30,000 min⁻¹, 25,000 min⁻¹

Grinding Power: ★★★★★

Rubber Hardness: Medium

Grit	Color	47001	47011	47021
120	White	47001	47011	47021
220	Brown	47002	47012	47022
450	Blue	47003	47013	47023
600	Pink	47004	47014	47024
800	Beige	47005	47015	
1000	Green	47006	47016	

Assorted Set: 47009 (Set 12 pieces) (47001-47006), 47019 (Set 12 pieces) (47011-47016), 47029 (Set 8 pieces) (47021-47024)

5 pcs./set

Abrasive Power: 10,000 min⁻¹

Grinding Power: ★★★★★

Rubber Hardness: Medium

Grit	Color	47031	47032	47033	47034	47035	47036	47037
80	Yellow	47031	47032	47033	47034	47035	47036	47037
120	White							
220	Brown							
450	Blue							
600	Pink							
800	Beige							
1000	Green							

Assorted Set: 47039 (Set 7 pieces) (47031-47037)

SHANK 2.34, 3.0, 6.0

10 pcs./set **3 pcs./set** **1 pc./set**

Abrasive Power: 30,000 min⁻¹, 30,000 min⁻¹, 25,000 min⁻¹

Grinding Power: ★★★★★

Rubber Hardness: Medium

Assorted Set: 37011, 37051, 37062, 47042, 47043, 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 6.0

10 pcs./set WA Power Polisher

Abrasive Power: ★★★★★

Grinding Power: ★★★★★

Rubber Hardness: Medium

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

RUBBERIZED ABRASIVES

SHANK 6.0

10 pcs./pack WA Green Polisher

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

Grit	Color	47551	47561	47571	47581
120	Green	47551	47561	47571	47581
150	Green	47552	47562	47572	47582
180	Green	47553	47563	47573	47583
240	Green	47554	47564	47574	47584

※47572,47574 is Total Length 60mm.

10 pcs./pack WA High Shine Polisher

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

Grit	Color	47601	47611	47621	47631
180	Red	47601	47611	47621	47631
240	Blue	47602	47612	47622	47632
320	Green	47603	47613	47623	47633
400	Violet	47604	47614	47624	47634
600	Brown	47605	47615	47625	47635

SHANK 2.34

3 pcs./pack

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

Grit	Color	47751	47752	47753	47754
120	Green	47751	47752	47753	47754

10 pcs./pack WA Silicon Wheel Rubber Grindstone

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

Grit	Color	47804	47805	47806	47807
120	Black	47804	47805	47806	47807
180	Gray	47802	47803	47804	47805
240	Brown	47802	47803	47804	47805
320	Dark Brown	47808	47809	47810	47811
400	Green	47803	47807	47812	47816

※Use after attaching to mandrel P.29 (No. 37011-37051).
※Mandrel needs to be purchased separately.

10 pcs./pack WA Green Wheel Rubber Grindstone

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

Grit	Color	47841	47851	47861	47871
120	Green	47841	47851	47861	47871
180	Green	47842	47852	47862	47872
240	Green	47843	47853	47863	47873

※Use after attaching to mandrel P.29 (No. 37011-37051).
※Mandrel needs to be purchased separately.

SHANK 2.34

12 pcs./pack Abrasive Rubber Point Assortment Set

47901		
Green Polisher (120)	High Shine Polisher (150)	Silicon Polisher (180)
46112	46212	46312
46122	46216	46316
46152	46232	46342
46156	46236	46346

SHANK 3.0

12 pcs./pack Abrasive Rubber Point Assortment Set

47905		
Power Polisher (180)	Green Polisher (150)	High Shine Polisher (120)
46623	46741	46803
46633	46751	46813
46643	46761	46823
46653	46771	46833

FLAP WHEELS

Nylon fabric fiber flap wheels. Perfect for light polishing.

SHANK 2.34

10 pcs./pack

Grit	Color	48701	48711
180	Brown	48701	48711

SHANK 3.0

5 pcs./pack 5 pcs./pack 10 pcs./pack 10 pcs./pack

Grit	Color	48601	48602	48603	48604	48605	48704	48705	48706	48708	48707
120	Red Brown	48601	48602	48603	48604	48605	48704	48705	48706	48708	48707
180	Brown	48601	48602	48603	48604	48605	48704	48705	48706	48708	48707
240	Red Brown	48603	48604	48605	48606	48607	48706	48707	48708	48710	48709
320	Green	48604	48605	48606	48607	48608	48708	48709	48710	48711	48712
400	Gray	48605	48606	48607	48608	48609	48709	48710	48711	48712	48713

3 pcs./pack

10 pcs./pack

Grit	Color	48724	48725	48726	48728	48727	48731	48732	48733	48734	48735
120	Red Brown	48724	48725	48726	48728	48727	48731	48732	48733	48734	48735
180	Brown	48724	48725	48726	48728	48727	48731	48732	48733	48734	48735
240	Red Brown	48736	48737	48738	48739	48740	48736	48737	48738	48739	48740
320	Red Brown	48736	48737	48738	48739	48740	48736	48737	48738	48739	48740
400	Green	48736	48737	48738	48739	48740	48736	48737	48738	48739	48740
600	Gray	48736	48737	48738	48739	48740	48736	48737	48738	48739	48740

※Use after attaching to mandrel P.29.
※Mandrel needs to be purchased separately.

SHANK 6.0

3 pcs./pack

Grit	Color	48744	48745	48747	48754	48755	48757
120	Red Brown	48744	48745	48747	48754	48755	48757
180	Brown	48744	48745	48747	48754	48755	48757
240	Red Brown	48744	48745	48747	48754	48755	48757

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

SHANK 3.0

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

Grit	48783	48785	48786	48787	48793	48795	48796	48797	48803	48805	48806	48807	48813	48815	48816	48817
120	48783	48785	48786	48787	48793	48795	48796	48797	48803	48805	48806	48807	48813	48815	48816	48817
150	48783	48785	48786	48787	48793	48795	48796	48797	48803	48805	48806	48807	48813	48815	48816	48817
180	48783	48785	48786	48787	48793	48795	48796	48797	48803	48805	48806	48807	48813	48815	48816	48817
240	48783	48785	48786	48787	48793	48795	48796	48797	48803	48805	48806	48807	48813	48815	48816	48817
320	48783	48785	48786	48787	48793	48795	48796	48797	48803	48805	48806	48807	48813	48815	48816	48817

SHANK 6.0

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

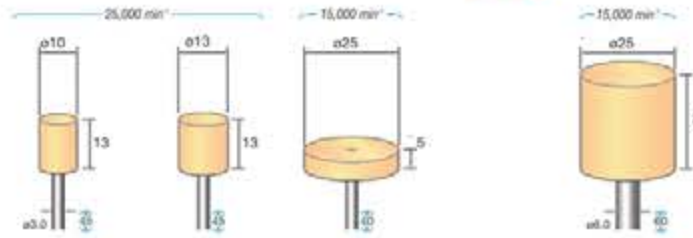
Grit	48823	48825	48826	48827	48833	48835	48836	48837	48843	48845	48846	48847
120	48823	48825	48826	48827	48833	48835	48836	48837	48843	48845	48846	48847
150	48823	48825	48826	48827	48833	48835	48836	48837	48843	48845	48846	48847
180	48823	48825	48826	48827	48833	48835	48836	48837	48843	48845	48846	48847
240	48823	48825	48826	48827	48833	48835	48836	48837	48843	48845	48846	48847
320	48823	48825	48826	48827	48833	48835	48836	48837	48843	48845	48846	48847

FLAP WHEELS



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

SHANK $\phi 3.0, \phi 6.0$
10 pcs./pack



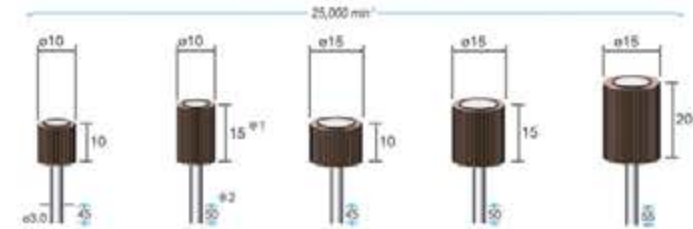
Grit	Color	48871	48881	48891	48931
120	Gray	48871	48881	48891	48931
240	Purple	48872	48882	48892	48932
400	Red	48873	48883	48893	48933
600	Blue	48874	48884	48894	48934
800	Violet	48875	48885	48895	48935
1000	Orange	48876	48886	48896	48936
1500	Yellow	48877	48887	48897	48937

Assorted Set
48889 Set (7 pieces) (48881~48887)
48899 Set (7 pieces) (48891~48897)



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	49131
120	49101	49111	49121	49131
240	49102	49112	49122	49132
400	49103	49113	49123	49133
600	49104	49114	49124	49134
800	49105	49115	49125	49135
1000	49106	49116	49126	49136
1500	49107	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	49161	49171	49181	49191	49201
120	49141	49151	49161	49171	49181	49191	49201
240	49142	49152	49162	49172	49182	49192	49202
400	49143	49153	49163	49173	49183	49193	49203
600	49144	49154	49164	49174	49184	49194	49204
800	49145	49155	49165	49175	49185	49195	49205
1000	49146	49156	49166	49176	49186	49196	49206
1500	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 pcs./pack



Grit	49303	49313	49323
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	49401	49411	49421	49431	49441
120	49401	49411	49421	49431	49441
180	49402	49412	49422	49432	49442
240	49403	49413	49423	49433	49443
400	49404	49414	49424	49434	49444
600	49405	49415	49425	49435	49445
800	49406	49416	49426	49436	49446
1000	49407	49417	49427	49437	49447

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



(49409 is made from metal)

200 pcs./pack Cartridge (Seamless Abrasives)



Grit	49461	49471	49481
120	49461	49471	49481
180	49462	49472	49482
240	49463	49473	49483

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



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./pak Cap (Seamless Abrasives)

	40,000 mm^2	30,000 mm^2	16,000 mm^2	12,000 mm^2	40,000 mm^2	30,000 mm^2	20,000 mm^2	16,000 mm^2	12,000 mm^2	40,000 mm^2	30,000 mm^2	20,000 mm^2	16,000 mm^2	12,000 mm^2
$\phi 7$	$\phi 7$	$\phi 9$	$\phi 15$	$\phi 18$	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$
$\phi 7$	12	14	19	27	12	14	16	20	26	10	12	15	18	26
$\phi 7$	49511	49531	49541	49551	49561	49571	49581	49591	49601	49612	49622	49632	49642	49641
$\phi 9$	49502	49532	49542	49552	49562	49572	49582	49592	49602	49613	49623	49633	49643	49641
$\phi 15$	49503	49513	49533	49543	49553	49563	49573	49583	49593	49603	49613	49623	49633	49643

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

	40,000 mm^2	30,000 mm^2	20,000 mm^2	40,000 mm^2	30,000 mm^2	40,000 mm^2	30,000 mm^2	30,000 mm^2
$\phi 5$	$\phi 7$	$\phi 10$	$\phi 5$	$\phi 7$	$\phi 10$	$\phi 5$	$\phi 7$	$\phi 10$
11	13	15	11	13	10	12	15	15
49505	49515	49525	49555	49565	49605	49615	49625	49625

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./pak Hard Type • Hardness : Hard • Color : White • Material : Bristle

	20,000 mm^2	16,000 mm^2
$\phi 17$	$\phi 20$	$\phi 23$
$\phi 10$	$\phi 10$	$\phi 10$
$\phi 2.34$	50102	50103
$\phi 3.0$	50112	50113
	$\phi 25$	$\phi 25$
	$\phi 10$	$\phi 10$
	50104	50105
	50114	50115
	50116	50116

SHANK $\phi 2.34, \phi 3.0$

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

	20,000 mm^2	15,000 mm^2
$\phi 17$	$\phi 20$	$\phi 23$
$\phi 10$	$\phi 10$	$\phi 10$
$\phi 2.34$	50122	50123
$\phi 3.0$	50132	50133
	$\phi 25$	$\phi 25$
	$\phi 10$	$\phi 10$
	50124	50125
	50134	50135
	50136	50136

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

	20,000 mm^2	15,000 mm^2
$\phi 15$	$\phi 20$	$\phi 23$
$\phi 10$	$\phi 10$	$\phi 10$
$\phi 2.34$	50141	50143
$\phi 3.0$	50151	50153
	$\phi 25$	$\phi 25$
	$\phi 10$	$\phi 10$
	50144	50144
	50154	50154

SHANK $\phi 2.34, \phi 3.0$

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

	18,000 mm^2
$\phi 15$	$\phi 20$
$\phi 10$	$\phi 10$
$\phi 2.34$	50161
$\phi 3.0$	50171
	$\phi 23$
	$\phi 10$
	50163
	50173
	50174

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

	15,000 mm^2	6,000 mm^2
$\phi 13$	$\phi 20$	$\phi 25$
$\phi 10$	$\phi 10$	$\phi 10$
$\phi 2.34$	50251	50256
$\phi 3.0$	50255	50257

SHANK $\phi 2.34, \phi 3.0$

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

	15,000 mm^2	6,000 mm^2
$\phi 13$	$\phi 20$	$\phi 25$
$\phi 10$	$\phi 10$	$\phi 10$
$\phi 2.34$	50261	50266
$\phi 3.0$	50265	50267

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

	10,000 mm^2	8,000 mm^2
$\phi 13$	$\phi 20$	$\phi 25$
$\phi 10$	$\phi 10$	$\phi 10$
$\phi 2.34$	50271	50281
$\phi 3.0$	50275	50285

* 50285 is diameter of 1.

* Order in standard package quantities.

POLISHING BRUSHES

• SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack

Hard Type
 • Hardness: Hard
 • Color: White
 • Material: Bristle

$\phi 15$ 50311
 $\phi 16$ 50312
 $\phi 25$ 50317

10 pcs./pack

Hard Type
 • Hardness: Hard
 • Color: Black
 • Material: Bristle

$\phi 15$ 50321
 $\phi 16$ 50322
 $\phi 25$ 50327

• SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack

Medium Type
 • Hardness: Medium
 • Color: Brown
 • Material: Horse Hair

$\phi 15$ 50331
 $\phi 25$ 50335

Soft Type
 • Hardness: Soft
 • Color: White
 • Material: Goat Hair

$\phi 15$ 50341
 $\phi 25$ 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

Wire Diameter 0.1 mm

$\phi 15$ 50412
 $\phi 20$ 50413
 $\phi 23$ 50414
 $\phi 25$ 50415

$\phi 15$ 50422
 $\phi 20$ 50423
 $\phi 23$ 50424
 $\phi 25$ 50425

• SHANK $\phi 3.0$ **Stainless**

5 pcs./pack

Wire Diameter 0.15 mm

$\phi 15$ 50426
 $\phi 20$ 50427

10 pcs./pack

Wire Diameter 0.1 mm

$\phi 13$ 50511
 $\phi 20$ 50516

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

10 pcs./pack

Wire Diameter 0.1 mm

$\phi 5$ 50521
 $\phi 8$ 50526

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

10 pcs./pack

Wire diameter 0.1 mm

$\phi 15$ 50432
 $\phi 20$ 50433
 $\phi 23$ 50434
 $\phi 25$ 50435

$\phi 15$ 50442
 $\phi 20$ 50443
 $\phi 23$ 50444
 $\phi 25$ 50445

• SHANK $\phi 3.0$ **Steel**

5 pcs./pack

Wire diameter 0.15 mm

$\phi 15$ 50446
 $\phi 20$ 50447

10 pcs./pack

Wire diameter 0.1 mm

$\phi 13$ 50531
 $\phi 20$ 50536

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

10 pcs./pack

Wire diameter 0.1 mm

$\phi 5$ 50541
 $\phi 8$ 50546

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

10 pcs./pack

Wire diameter 0.1 mm

$\phi 15$ 50452
 $\phi 20$ 50453
 $\phi 23$ 50454
 $\phi 25$ 50455

$\phi 15$ 50462
 $\phi 20$ 50463
 $\phi 23$ 50464
 $\phi 25$ 50465

• SHANK $\phi 3.0$ **Brass**

5 pcs./pack

Wire diameter 0.15 mm

$\phi 15$ 50466
 $\phi 20$ 50467

10 pcs./pack

Wire diameter 0.1 mm

$\phi 13$ 50551
 $\phi 20$ 50556

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

10 pcs./pack

Wire diameter 0.1 mm

$\phi 5$ 50561
 $\phi 8$ 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]

10 pcs./pack

$\phi 15$ 50711
 $\phi 23$ 50712
 $\phi 13$ 50713
 $\phi 20$ 50714
 $\phi 5$ 50715
 $\phi 8$ 50716

$\phi 15$ 50721
 $\phi 23$ 50722
 $\phi 13$ 50723
 $\phi 20$ 50724
 $\phi 5$ 50725
 $\phi 8$ 50726

Heatproof Nylon Brush Wire diameter [0.2 mm]

5 pcs./pack

Armid Fiber
 • Melted Temperature: 420°C
 • Continuous Use Limit Temperature: 210°C

$\phi 20$ 50731
 $\phi 23$ 50732
 $\phi 13$ 50733
 $\phi 5$ 50735
 $\phi 8$ 50736

• SHANK $\phi 3.0$

Nylon Brush contained proof material against static electricity Wire diameter [0.15 mm]

5 pcs./pack

$\phi 20$ 50741
 $\phi 23$ 50742
 $\phi 13$ 50743
 $\phi 5$ 50745
 $\phi 8$ 50746

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 $\phi 2.34, \phi 3.0$

Abrasive Impregnated (GC) Nylon Brush
Wire diameter [0.4 mm] $\phi 50766, \phi 50787$ is Wire diameter 0.55 mm.

5 pcs./pack

$\phi 23$ 51755
 $\phi 25$ 51756
 $\phi 20$ 51757
 $\phi 5$ 51795
 $\phi 8$ 51805

$\phi 23$ 51765
 $\phi 25$ 51766
 $\phi 20$ 51767
 $\phi 5$ 51796
 $\phi 8$ 51806

Diamond Impregnated Nylon Brush Wire diameter [180, 420, 0.4 mm] $\phi 400, \phi 600, 0.25$ mm

1 pc./pack

$\phi 23$ 51011
 $\phi 25$ 51012
 $\phi 13$ 51013
 $\phi 5$ 51014
 $\phi 8$ 51015

$\phi 23$ 51016
 $\phi 25$ 51017
 $\phi 13$ 51018
 $\phi 5$ 51031
 $\phi 8$ 51041

$\phi 23$ 51032
 $\phi 25$ 51033
 $\phi 13$ 51034
 $\phi 5$ 51035
 $\phi 8$ 51036

$\phi 23$ 51042
 $\phi 25$ 51043
 $\phi 13$ 51044
 $\phi 5$ 51045
 $\phi 8$ 51046

$\phi 23$ 51055
 $\phi 25$ 51056
 $\phi 13$ 51057
 $\phi 5$ 51058
 $\phi 8$ 51059

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.

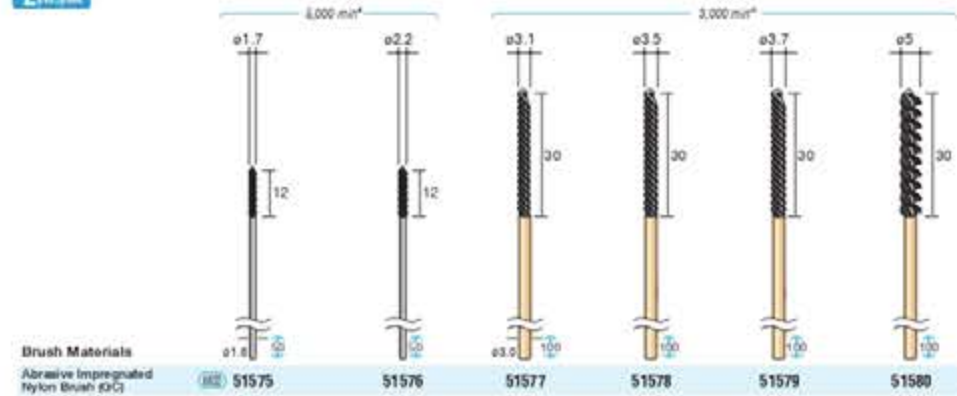


- Abrasive Impregnated Nylon Brush
- Bristle Brush
- Wire Brush

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

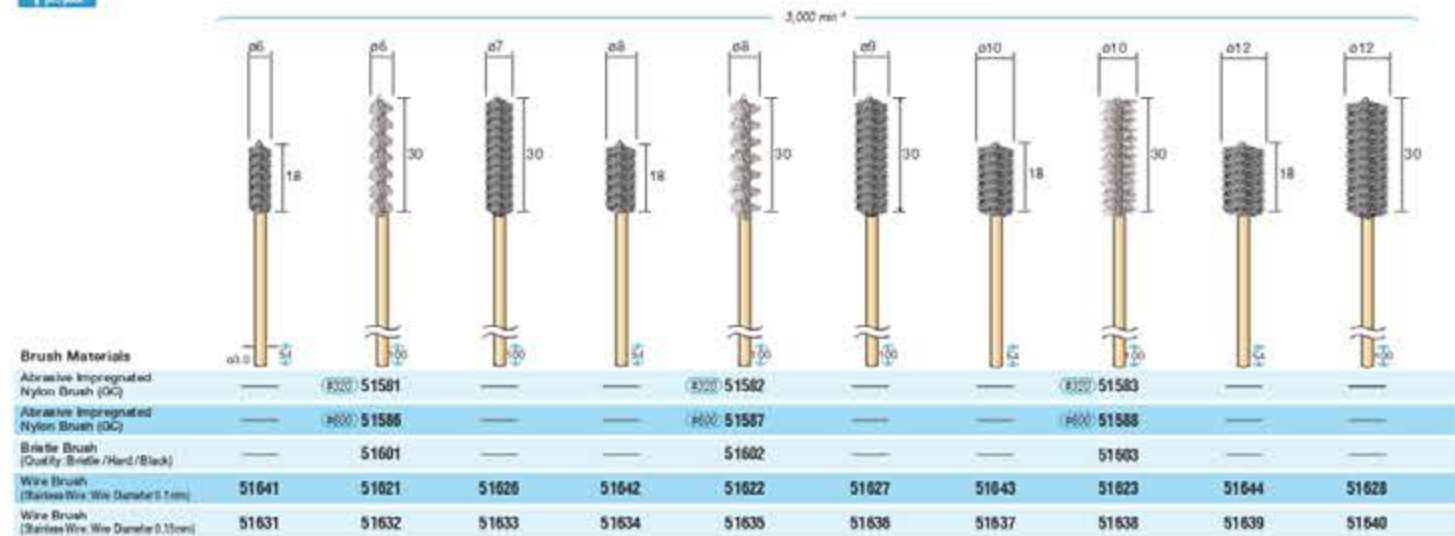
SHANK $\phi 1.8, \phi 3.0$

2 in. Shank



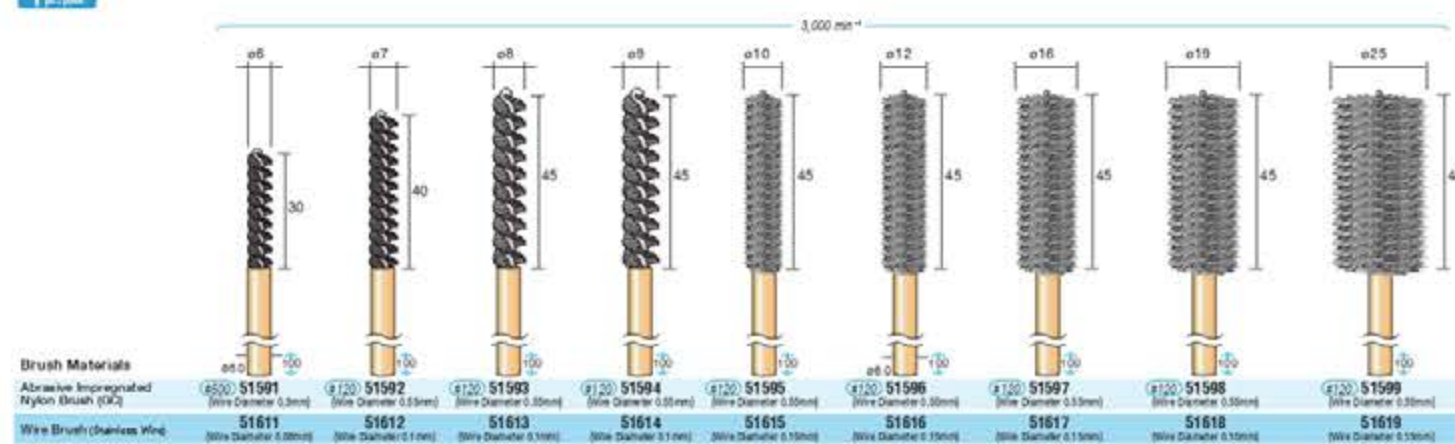
SHANK $\phi 3.0$

1 in. Shank



SHANK $\phi 6.0$

1 in. Shank



WIRE LAPPING TOOLS

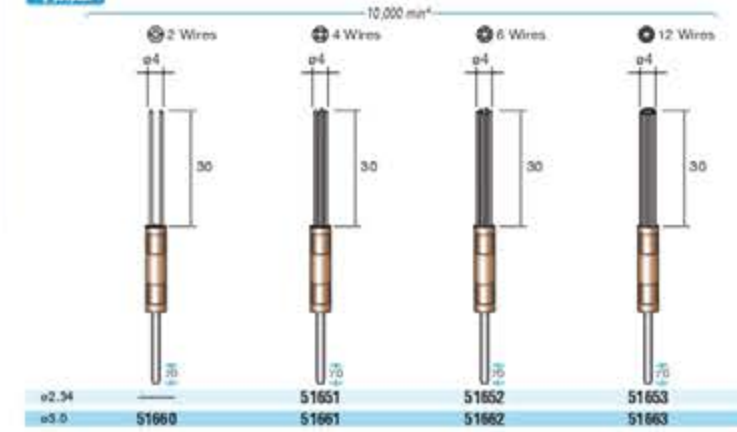


Wire lapping tools are made from banded piano wire. Ideal for burr removal and finishing of metals and plastics. They are also suited to polishing with abrasive compounds.

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

SHANK $\phi 2.34, \phi 3.0$

1 in. Shank

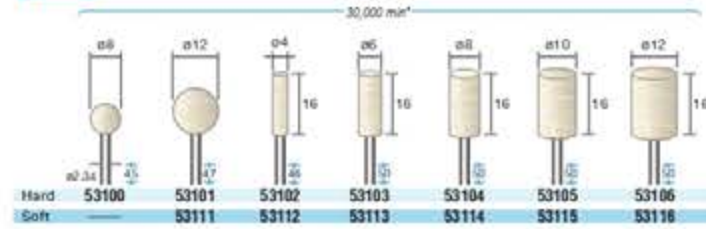


FELT BOBS

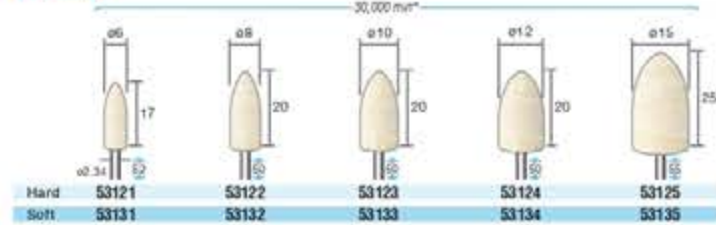


Felt bobs are made from 100% high quality wool. They are designed for superior finishing with abrasive compounds or with their embedded abrasives.

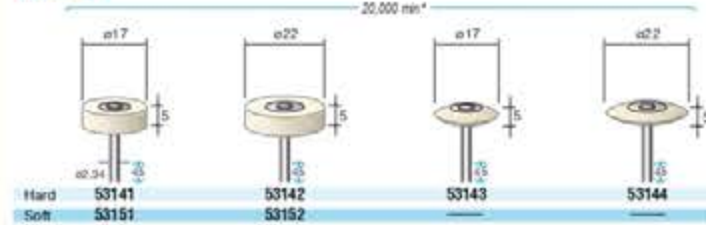
SHANK ϕ 2.34
10 pcs./pack



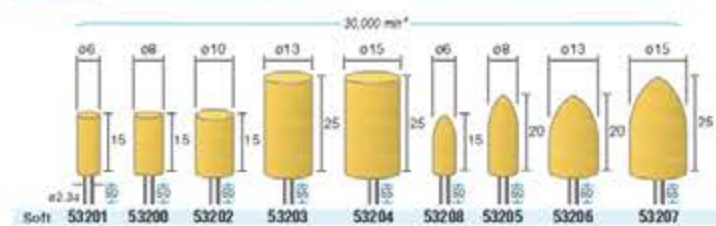
SHANK ϕ 2.34
10 pcs./pack



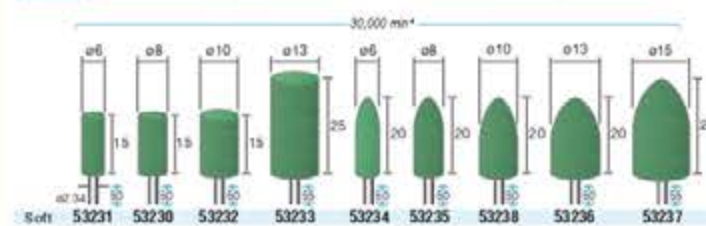
10 pcs./pack



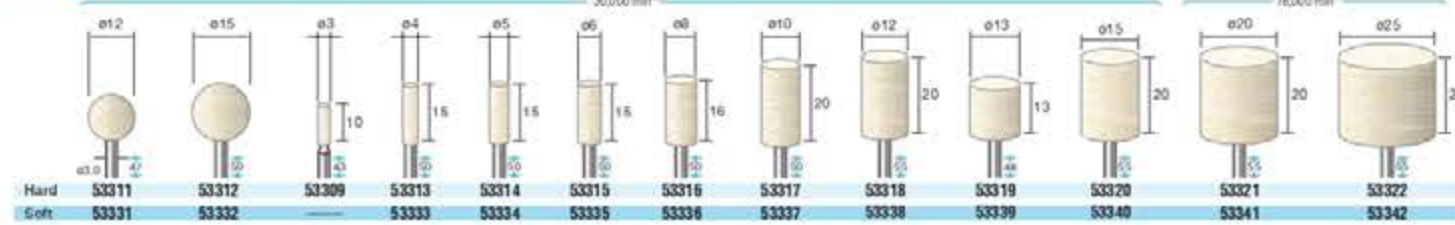
SHANK ϕ 2.34
10 pcs./pack



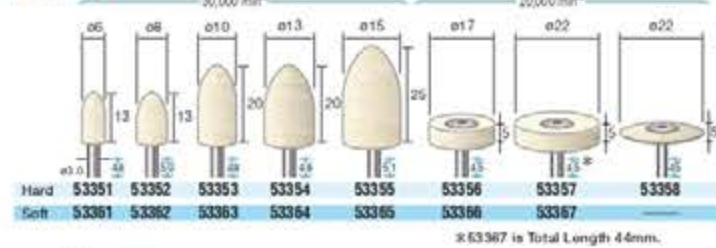
10 pcs./pack



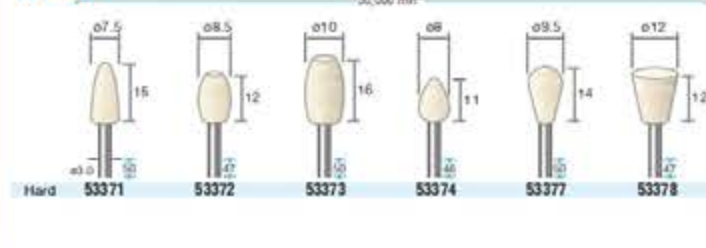
SHANK ϕ 3.0
10 pcs./pack



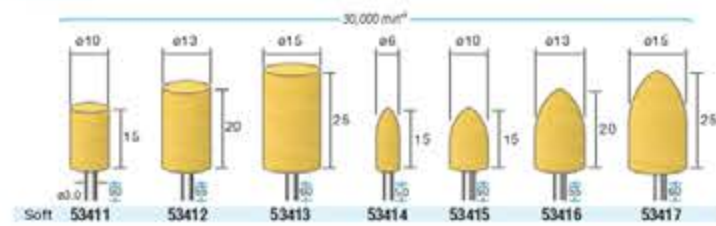
SHANK ϕ 3.0
10 pcs./pack



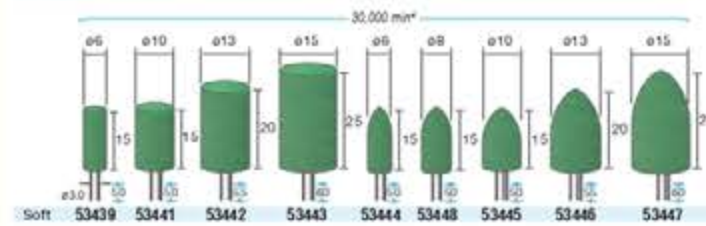
10 pcs./pack



SHANK ϕ 3.0
10 pcs./pack

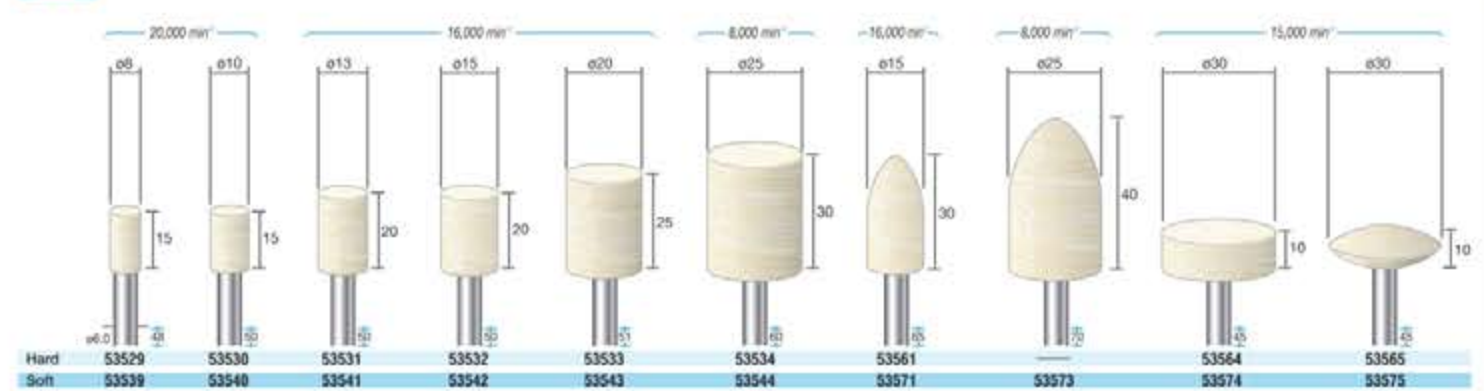


10 pcs./pack

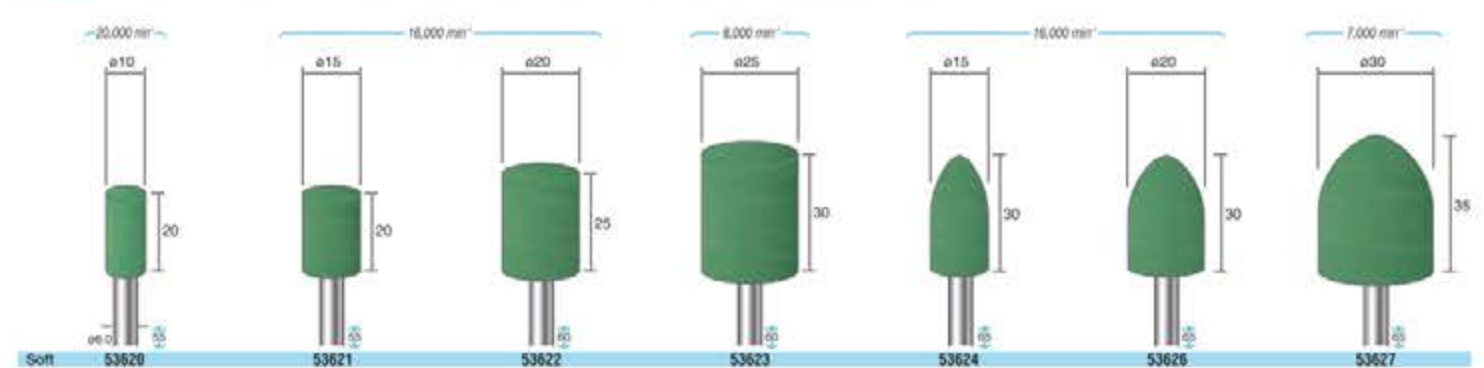


FELT BOBS

SHANK ϕ 6.0
5 pcs./pack

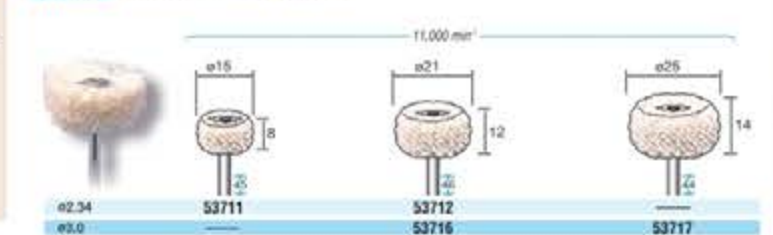


SHANK ϕ 6.0
5 pcs./pack

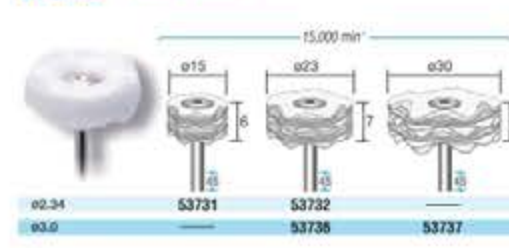


Cotton polishing bobs are made for soft polishing. They are well suited to a wide variety of materials.

SHANK ϕ 2.34, ϕ 3.0
10 pcs./pack



SHANK ϕ 2.34, ϕ 3.0
10 pcs./pack



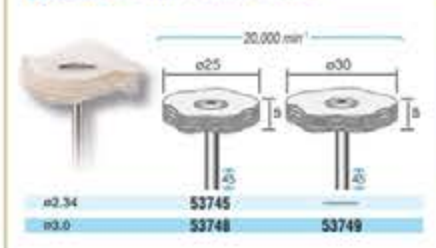
SHANK ϕ 6.0
5 pcs./pack



SHANK ϕ 3.0
10 pcs./pack



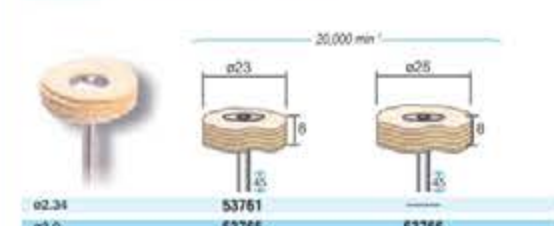
SHANK ϕ 2.34, ϕ 3.0
10 pcs./pack



SHANK ϕ 2.34, ϕ 3.0
10 pcs./pack



10 pcs./pack



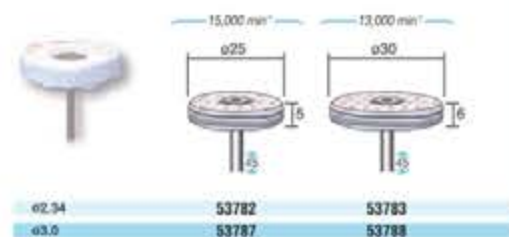
10 pcs./pack



FELT BOBS

SHANK 2.34, 3.0

5 pcs. pack Cotton Bobs

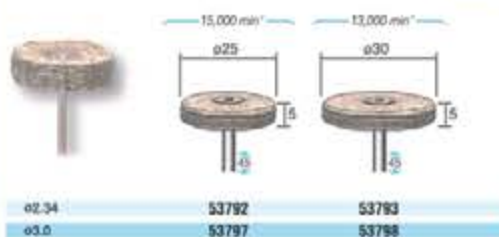


3 pcs. pack



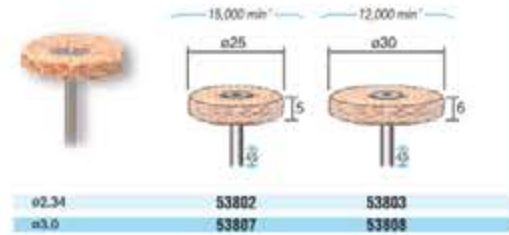
5 pcs. pack Dark Brown Cotton Bobs

For metal semi-finishing. Using polishing materials.

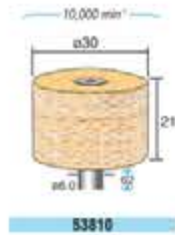


SHANK 2.34, 3.0

5 pcs. pack Sisal Bobs

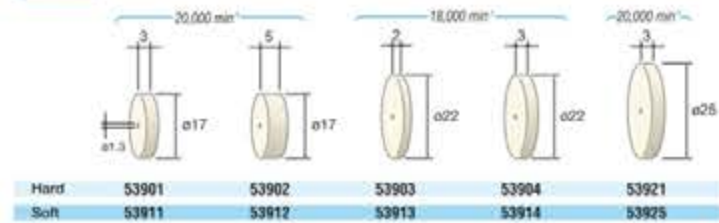


3 pcs. pack



SHANK 1.3

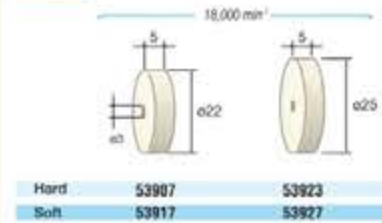
10 pcs. pack



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

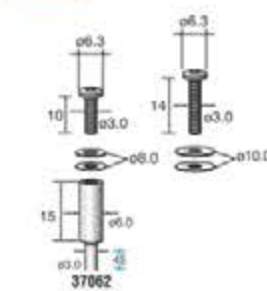
SHANK 3.0

10 pcs. pack



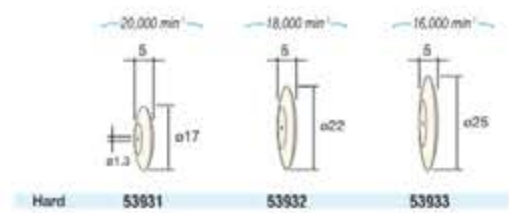
Use after attaching to mandrel (No. 37052). Mandrel needs to be purchased separately.

3 pcs. pack Mandrels



SHANK 1.3

10 pcs. pack Knife Edge Type



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

SHANK 3.0

16 pcs. pack Polishing Piled Bobs Assorted Set



54185			
Set (10 pieces)			
(Each code No. one piece pack)			
53312	53351	53412	53716
53316	53353	53416	53736
53318	53355	53442	53741
53320	53357	53446	53765

ABRASIVE COMPOUNDS & POLISHING TOOLS

1 pc. pack Diamond Compounds

	#180: 90 μm	#230: 60 μm	#325: 45 μm	#600: 30 μm	#1,200: 15 μm	#1,800: 9 μm	#3,000: 6 μm	#8,000: 3 μm
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

	#14,000: 3 μm	#60,000: 1/2 μm	#100,000: 1/4 μm
Standard	Water Soluble 55111 (Ivory)	55112 (White)	55133 (Gray)
Oil-Based	55131 (Ivory)	55132 (White)	

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	90 Carats	Micron Range μm (Grit)	10 Carats	90 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 (#6,000)	55308	55318
20-30 (#900)	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
Alumina for metal pre-finishing (white rouge)	55341
Tripoli for metal pre-finishing (red rouge)	55342
Chrome oxide for metal finishing (blue rouge)	55343

	Applications
For resin pre-finishing (white rouge)	55345
For resin finishing (white rouge)	55346



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	55514	55534	55554	55584	55604
#780	Ivory	—	—	—	—	—
#600	Brown	—	55535	55555	55585	55605
#420	Orange	55516	55536	55556	55586	55606
#300	Black	—	55537	55557	55587	—
#180	Blue	—	55538	—	55588	—
#100	White	55519	55539	55559	55589	55609
#750	Pink	55520	55530	55540	55590	55610

ABRASIVE COMPOUNDS & POLISHING TOOLS

SHANK 3.0
Diamond Files (Round, Round taper)

ø1 15		Gr#	
		# 100	62840
		# 150	62841
		# 200	62842
ø2 15		Gr#	
		# 150	62845
		# 200	62846
		# 400	62847

ø3 20		Gr#	
		# 150	62851
		# 200	62852
		# 400	62853
ø3.5 25		Gr#	
		# 150	62855
		# 200	62856
		# 400	62857

SHANK 3.0
Diamond Files (Half-Round, Triangular)

1.5 15		Gr#	
		# 150	62865
		# 200	62866
		# 400	62867
2 20		Gr#	
		# 150	62871
		# 200	62872
		# 400	62873

3 20		Gr#	
		# 150	62881
		# 200	62882
		# 400	62883



SHANK 3.0
Diamond Files (Flat Taper)

0.6 1.2		Gr#	
		# 200	57101
		# 400	57102
		# 600	57103
0.6 1.4		Gr#	
		# 200	57104
		# 400	57105
		# 600	57106

SHANK 3.0
Diamond Files (Flat Taper, Thin Flat, Flat)

0.6 1.6		Gr#	
		# 200	57107
		# 400	57108
		# 600	57109
0.5 1.5		Gr#	
		# 150	57110
		# 200	57111
		# 400	57112

0.6 1.5		Gr#	
		# 150	57113
		# 200	57114
		# 400	57115
1.4 1.6		Gr#	
		# 120	57116
		# 200	57117
		# 400	57118

SHANK 1.0, 2.0, 3.0, 3.4
Diamond Files (Round)

ø1 40		Gr#	
		# 200	57131
		# 400	57132
		# 600	57133
ø2 40		Gr#	
		# 200	57133
		# 400	57134
		# 600	57135

ø3 50		Gr#	
		# 120	57135
		# 200	57136
		# 400	57137
ø3.5 60		Gr#	
		# 120	57138
		# 200	57139
		# 400	57140

SHANK 3.0, 3.4
Diamond Files (Half-Round)

2 5		Gr#	
		# 120	57141
		# 200	57142
		# 400	57143
2 6		Gr#	
		# 120	57144
		# 200	57145
		# 400	57146

SHANK 3.0
Diamond Files (Angular)

2.5 1.5		Gr#	
		# 120	57151
		# 200	57152
		# 400	57153
3 1.5		Gr#	
		# 120	57154
		# 200	57155
		# 400	57156

ABRASIVE COMPOUNDS & POLISHING TOOLS

SHANK 3.0, 3.4
Diamond Files (Triangular, Elliptical, Blade)

3.5 3.5		Gr#	
		# 120	57155
		# 200	57156
		# 400	57157
4 4		Gr#	
		# 100	57157
		# 200	57158
		# 400	57159

3 5		Gr#	
		# 120	57160
		# 200	57161
		# 400	57162
1.7 6		Gr#	
		# 120	57162
		# 200	57163
		# 400	57164

SHANK 3.0
Diamond Files (Sickle Type)
(Flat, Round, Half-Round, Angular, Triangular)

6 1.5		Gr#	
		# 150	57171
		# 200	57172
		# 400	57173
ø3 20		Gr#	
		# 150	57174
		# 200	57175
		# 400	57176

1.5 27.5		Gr#	
		# 150	57175
		# 200	57176
		# 400	57177
2.5 27.5		Gr#	
		# 150	57177
		# 200	57178
		# 400	57179
3.5 27		Gr#	
		# 150	57179
		# 200	57180
		# 400	57181

SHANK 3.0, 3.5
Precision Finishing Files (Flat, Round, Angular, Triangular, Half-Round)

Total length The length of file	140mm 70mm			140mm 80mm		
	Standard	Fine	Standard	Standard	Fine	Standard
1.3(1.5) 5.7(6)	57301	57311	57321			
3(3.5) 30.5	57302	57312	57322			
2.5(2.7) 10.5	57303	57313	57323			

Total length The length of file	140mm 70mm		140mm 80mm	
	Standard	Fine	Standard	Fine
3.3(4.1) 13.5	57304	57314	57324	
2 5(6)	57305	57315	57325	

- 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 140mm) set (No.57321-No.57325 : 1pc. each) 57329

SHANK 3.0
Rasps for plastics and wood working (Flat, Round, Angular, Triangular, Half-Round)

2.2 5.7		Gr#	
		# 150	57401
		# 200	57402
		# 400	57403

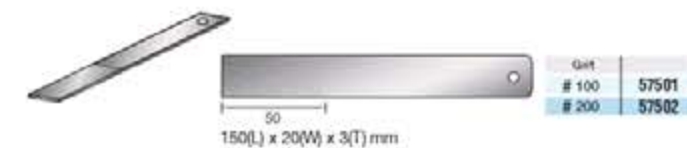
3.8 5.7		Gr#	
		# 150	57404
		# 200	57405
		# 400	57406

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

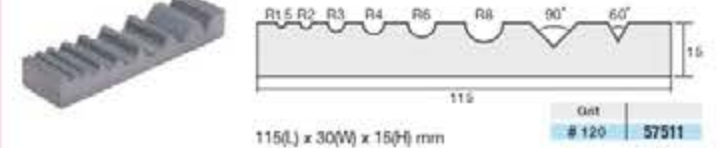
SHANK 3.0
Special Grip Handle
• Attachable shank diameter is ø2-4 mm



SHANK 3.0
Diamond Hand Dresser
• Light weight, electroplated diamond dresser. Ideally suited to a wide variety of applications.



SHANK 3.0
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

1 pc./pack Grindstone Dresser

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



Handy Type	Size	WA	GC
		Flat Plate Type 75(W) x 25(D) x 8(H) mm	57521 C80
Stick Type	Mini Type 50(W) x 7(D) x 7(H) mm	57531 K200	57536 K200
		100(W) x 20(D) x 15(H) mm	57541 K200

1 pc./pack Natural Diamond Single Stone Dresser

• Used for dressing or shaping standard grindstones.

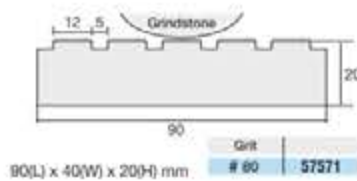


* Shank diameter : ϕ 11mm
Length : 100mm

No. of Carats	Recommended Grindstone Outer Diameter	
1/2 (0.5ct)	ϕ 150-200mm	57552
3/4 (0.75ct)	ϕ 255-300mm	57553
1ct	ϕ 300-355mm	57554

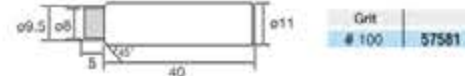
1 pc./pack Tooling Block Dresser

• Dresser with electroplated diamonds on a block metal surface.



1 pc./pack Imprint Dresser For Truing

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



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

Shape	Thickness	Grit	Part No.
Flat taper	0.4	# 200	60101
		# 320	60102
		# 600	60103
Flat	1"	# 200	60105
		# 320	60106
		# 600	60107
Flat bent	1"	# 200	60111
		# 320	60112
		# 600	60113
Column with the rounded edge	ϕ 1	# 200	60151
		# 320	60152
		# 600	60153
Column with the rounded edge	ϕ 2	# 200	60155
		# 320	60156
		# 600	60157
Round taper (cone-shaped)	ϕ 3	# 200	60181
		# 320	60182
		# 600	60183
Triangular taper (Triangular pyramid)	3	# 200	60185
		# 320	60186
		# 600	60187
Oval taper	2	# 200	60191
		# 320	60192
		# 600	60193
Flat long	1	# 200	60115
		# 320	60116
		# 600	60117
Flat long taper	1	# 200	60231
		# 320	60232
		# 600	60233
Flat long taper	1	# 200	60235
		# 320	60236
		# 600	60237

2 pc./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
# 120	Violet	60511	60516
# 220	Brown	60512	60517
# 400	Orange	60513	60518
# 600	Blue	60514	60519
# 1,200	Red	60515	60520

Grit	Color	ϕ 3 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 pc./pack Brass Lapping Tip (Total Length 40 mm)

• Lapping tools for finishing using diamond or abrasive compounds.

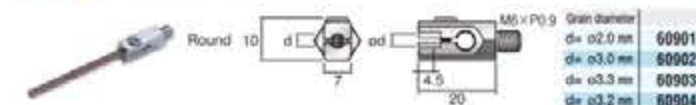


Grain diameter	Part No.
d= ϕ 2 mm	60801
d= ϕ 3 mm	60802

60805

* Use after clamping in Special Tip Holder

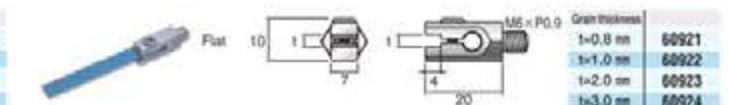
2 pc./pack Special Tip Holder • Choose by tip size and shape.



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



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



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

60921

60922

60923

60924

60925

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 3.0

1 pc./pack Electroplated Diamond File

Flat taper	Thickness 1.4	Grit # 200	62301	Half-round	2	Grit # 150	62313
		Grit # 400	62302			Grit # 150	62315
		Grit # 600	62303			Grit # 150	62317
Flat taper	Thickness 1.4	Grit # 200	62305	Round	3	Grit # 150	62315
		Grit # 400	62306			Grit # 150	62315
		Grit # 600	62307	Angular	2.5	Grit # 150	62317
Flat	1.7	Grit # 150	62311				

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	62351	Grit # 150	t=0.7-1.3mm	62361
Grit # 200	t=0.6-1.2mm	62352	Grit # 200	t=0.6-1.2mm	62362
Grit # 400	t=0.5-1.0mm	62353	Grit # 400	t=0.5-1.0mm	62363

SHANK 3.0, 3.5

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

Total length The length of file	140mm		180mm		Standard	Fine	Standard
	70mm	90mm	70mm	90mm			
1.3(1.5) 5(16)	(Flat)	57301	57311	57321	57304	57314	57324
3(3.5)	(Round)	57302	57312	57322	57305	57315	57325
2.5(2.7)	(Angular)	57303	57313	57323			

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) 57316
- Standard (total length 180mm) set (No.57321-No.57325: 1pc. each) 57329

SHANK 3.0

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

2.2	(Flat)	57401	2.8	(Triangular)	57404
3.8	(Round)	57402	2.3	(Half-round)	57405
3.3	(Angular)	57403			

5 files-pack set

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

NAKANISHI's EXCLUSIVE TOOLS

1 pc./pack Stone Holder



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

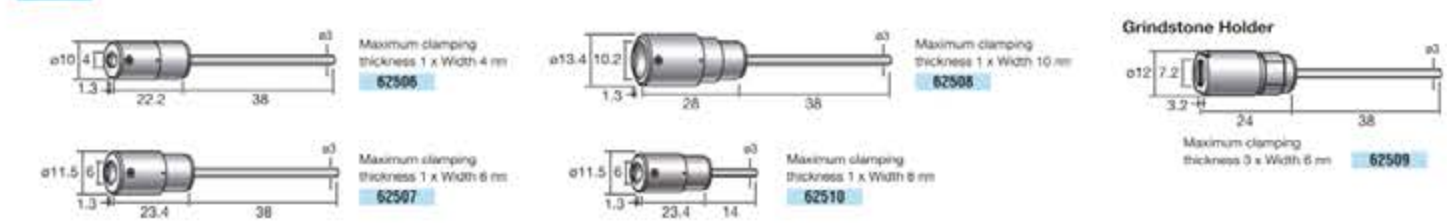
● Alumina fiber abrasive with the strength and the flexibility for rough or fine finishing.



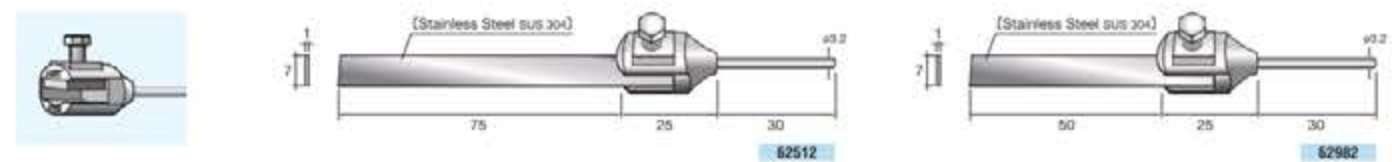
Grit	Color	W = 4 mm	W = 6 mm	W = 10 mm
# 120	Violet	60511	60516	60521
# 220	Brown	60512	60517	60522
# 400	Orange	60513	60518	60523
# 800	Blue	60514	60519	60524
# 1,200	Red	60515	60520	60525

Grit	Color	φ3 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



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



1 pc./pack Angular Pad Holder

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

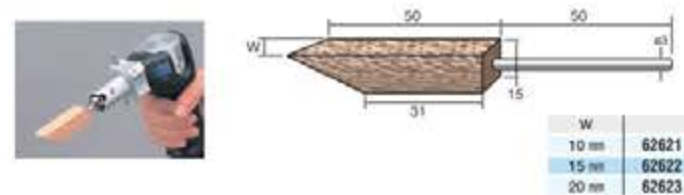


100 pcs./pack Sand Paper Tip

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

Adhesive Back

3 pcs./pack Wood Tip Holder



1 pc./pack Spring Holder



NAKANISHI's EXCLUSIVE TOOLS

SHANK 03.0

1 pc./pack Electroplated Diamond File

<p>Flat taper</p> <table border="1"> <thead> <tr> <th>Thickness</th> <th>Grit</th> <th>Part No.</th> </tr> </thead> <tbody> <tr> <td>0.5 mm</td> <td># 200</td> <td>62801</td> </tr> <tr> <td>0.4 mm</td> <td># 400</td> <td>62802</td> </tr> <tr> <td>0.35 mm</td> <td># 600</td> <td>62803</td> </tr> </tbody> </table>	Thickness	Grit	Part No.	0.5 mm	# 200	62801	0.4 mm	# 400	62802	0.35 mm	# 600	62803	<p>Angular</p> <table border="1"> <thead> <tr> <th>Grit</th> <th>Part No.</th> </tr> </thead> <tbody> <tr> <td># 150</td> <td>62831</td> </tr> <tr> <td># 200</td> <td>62832</td> </tr> <tr> <td># 400</td> <td>62833</td> </tr> </tbody> </table>	Grit	Part No.	# 150	62831	# 200	62832	# 400	62833		
Thickness	Grit	Part No.																					
0.5 mm	# 200	62801																					
0.4 mm	# 400	62802																					
0.35 mm	# 600	62803																					
Grit	Part No.																						
# 150	62831																						
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Exclusive Tools of "60° & 90° ANGLE"

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

SHANK 03.0

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

20,000 min⁻¹

64101, 64102, 64103

100 pc./pack Sand Paper Disk

<p>Cloth Type</p> <p>• For Metals ... Both for dry and wet finishing (Adhesive is resistant to water and oil)</p> <table border="1"> <thead> <tr> <th>Grit</th> <th>11</th> <th>21</th> <th>31</th> </tr> </thead> <tbody> <tr><td># 60</td><td>64111</td><td>64121</td><td>64141</td></tr> <tr><td># 80</td><td>64112</td><td>64122</td><td>64142</td></tr> <tr><td># 120</td><td>64113</td><td>64123</td><td>64143</td></tr> <tr><td># 180</td><td>64114</td><td>64124</td><td>64144</td></tr> <tr><td># 240</td><td>64115</td><td>64125</td><td>64145</td></tr> <tr><td># 320</td><td>64116</td><td>64126</td><td>64146</td></tr> <tr><td># 400</td><td>64117</td><td>64127</td><td>64147</td></tr> <tr><td># 600</td><td>64118</td><td>64128</td><td>64148</td></tr> </tbody> </table> <p>Adhesive Back</p>	Grit	11	21	31	# 60	64111	64121	64141	# 80	64112	64122	64142	# 120	64113	64123	64143	# 180	64114	64124	64144	# 240	64115	64125	64145	# 320	64116	64126	64146	# 400	64117	64127	64147	# 600	64118	64128	64148	<p>Paper Type</p> <p>• For Metals ... Both for dry and wet finishing (Adhesive is resistant to water and oil)</p> <table border="1"> <thead> <tr> <th>Grit</th> <th>11</th> <th>21</th> <th>31</th> </tr> </thead> <tbody> <tr><td># 80</td><td>64131</td><td>64151</td><td>64171</td></tr> <tr><td># 120</td><td>64132</td><td>64152</td><td>64172</td></tr> <tr><td># 180</td><td>64133</td><td>64153</td><td>64173</td></tr> <tr><td># 240</td><td>64134</td><td>64154</td><td>64174</td></tr> <tr><td># 320</td><td>64135</td><td>64155</td><td>64175</td></tr> <tr><td># 400</td><td>64136</td><td>64156</td><td>64176</td></tr> <tr><td># 600</td><td>64137</td><td>64157</td><td>64177</td></tr> <tr><td># 800</td><td>64138</td><td>64158</td><td>64178</td></tr> <tr><td># 1,000</td><td>64139</td><td>64159</td><td>64179</td></tr> <tr><td># 1,500</td><td>64140</td><td>64160</td><td>64180</td></tr> </tbody> </table> <p>Adhesive Back</p>	Grit	11	21	31	# 80	64131	64151	64171	# 120	64132	64152	64172	# 180	64133	64153	64173	# 240	64134	64154	64174	# 320	64135	64155	64175	# 400	64136	64156	64176	# 600	64137	64157	64177	# 800	64138	64158	64178	# 1,000	64139	64159	64179	# 1,500	64140	64160	64180	<p>Paper Type</p> <p>• Dry type ... For Metal, Woodwork, Paint, Putty polishing, Dry use</p> <table border="1"> <thead> <tr> <th>Grit</th> <th>11</th> <th>21</th> <th>31</th> </tr> </thead> <tbody> <tr><td># 80</td><td>64201</td><td>64211</td><td>64221</td></tr> <tr><td># 120</td><td>64202</td><td>64212</td><td>64222</td></tr> <tr><td># 180</td><td>64203</td><td>64213</td><td>64223</td></tr> <tr><td># 240</td><td>64204</td><td>64214</td><td>64224</td></tr> <tr><td># 320</td><td>64205</td><td>64215</td><td>64225</td></tr> <tr><td># 400</td><td>64206</td><td>64216</td><td>64226</td></tr> <tr><td># 600</td><td>64207</td><td>64217</td><td>64227</td></tr> </tbody> </table> <p>Adhesive Back</p>	Grit	11	21	31	# 80	64201	64211	64221	# 120	64202	64212	64222	# 180	64203	64213	64223	# 240	64204	64214	64224	# 320	64205	64215	64225	# 400	64206	64216	64226	# 600	64207	64217	64227
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NAKANISHI's EXCLUSIVE TOOLS

100 pc./pack Zirconium Disk

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

Grit	11	21	31
# 60	64251	64261	64271
# 80	64252	64262	64272
# 120	64253	64263	64273
# 150	64254	64264	64274

Adhesive Back

20 pc./pack Fiber Disk

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

Grit	Color	11	21	31
# 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 pc./pack Felt Disk

• Ideal for finishing using abrasives and diamond compounds.

Description	11	21	31
Soft Type Felt Disk (1mm thickness)	64331	64332	64333
Soft Type Felt Disk (2mm thickness)	64335	64336	64337

Adhesive Back

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

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

Description	11	21	31
Felt Disk Chromium Oxide (Blue Rouge) Embedded Type. (2mm thickness)	64341	64342	64343

Adhesive Back

20 pc./pack Rubber Points Disk

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

Grit	Color	20	30
# 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 03.0

5 pc./pack Mounted Rubber Disks (Rubber Pad Integration)

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

Grit	Color	WA	OC
# 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

15,000 min⁻¹ For finishing e30

15,000 min⁻¹ For preliminary finishing e30

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	11	21	31
# 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	11	21	31
# 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

3 pcs./pack Resin Bond Diamond Disk Star Pattern

Grit	φ11	φ21	φ31
# 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

Adhesive Back

3 pcs./pack Lapping Film Disk Diamond Abrasive

Grit	Color	φ11	φ21	φ31
# 400	Ivory	64501	64505	64511
# 800	Ivory	64502	64507	64512
# 1,500	Ivory	64503	64508	64513
# 3,000	Ivory	64504	64509	64514

Adhesive Back

50 pcs./pack Lapping Film Disk WA Abrasive

Grit	Color	φ11	φ21	φ31
# 320	Pink	64521	64525	64531
# 600	Green	64522	64527	64532
# 1,000	Orange	64523	64528	64533
# 1,500	Olive	64524	64529	64534
# 3,000	Violet	64525	64530	64535

Adhesive Back

Exclusive Tools of "90° MINI ANGLE TYPE ATTACHMENT"

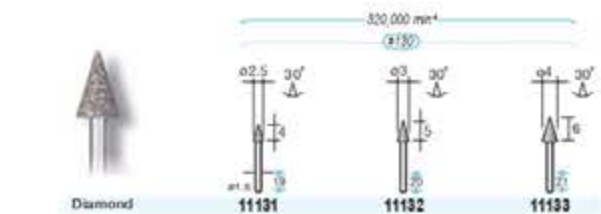
Steel cutters for radius grinding of deep cross holes for "Mini-Angle attachment". Ideal for radius grinding of holes or removing burrs from cross jigs, precision parts and inside surfaces of pipes.



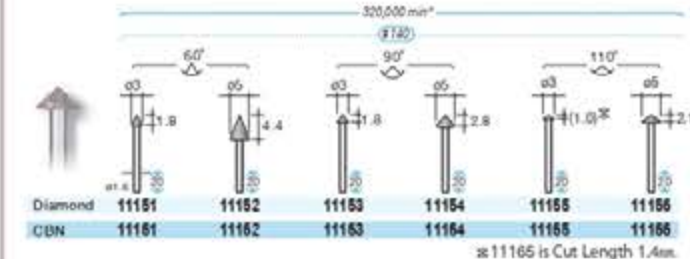
1 pc./pack Steel Cutters For Deep Cross Hole Finishing



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



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



NAKANISHI's EXCLUSIVE TOOLS

Exclusive Tools of "IMPULSE"

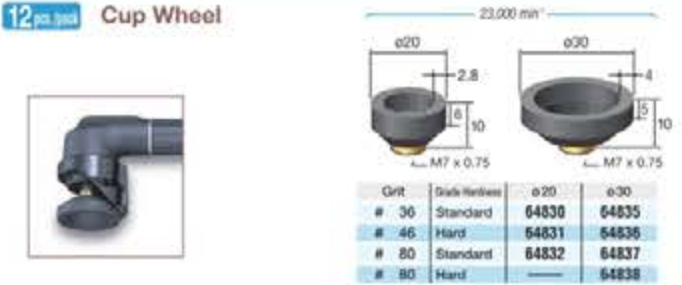
Special tools for Nakanishi Micro-grinder "IMPULSE". Excellent for grinding or polishing flat surfaces, edges with Nakanishi's high-power air grinder.



5 pcs./pack Special Rubber Pad for Disk Abrasives

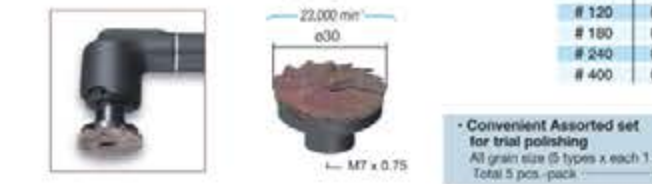


12 pcs./pack Cup Wheel



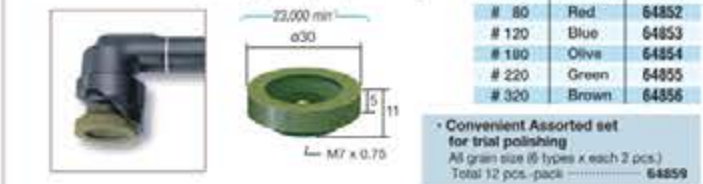
5 pcs./pack Polishing Sander

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



10 pcs./pack Rubber Cup Wheel

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



Exclusive Tools of "FINE BELT SANDER"



30 pcs./pack Abrasive Belts

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

For Grinding or Polishing of Metals (Length 300 mm)				For Woodwork (Length 300 mm)	
Grit	W = 4 mm	W = 8 mm	W = 8 mm	Grit	8 mm Width
# 80	64901	64911	64921	# 80	64941
# 120	64902	64912	64922	# 120	64942
# 180	64903	64913	64923	# 240	64943
# 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

• Assorted set for woodwork
All grain size (3 types x each 10 pcs.)
Total 30 pcs.-pack 64935

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

NAKANISHI's 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	Item Width
# 60	65011
# 120	65012
# 240	65014
# 320	65015
# 600	65017

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



Soft Type (Length 300 mm)			
Grit	Item Width	Grit	Item Width
# 120	65021	# 600	65025
# 180	65022	# 800	65026
# 240	65023	#1,000	65027
# 320	65024		
# 400	65028		

• 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	Item Width
# 60	64971
# 100	64972
# 120	64973

• 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