

FLAP WHEELS

SHANK  $\phi 3.0$



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

20 pcs./pack Cap (Seamless Abrasives)

	40,000 min <sup>-1</sup>	30,000 min <sup>-1</sup>	20,000 min <sup>-1</sup>	16,000 min <sup>-1</sup>	12,000 min <sup>-1</sup>	40,000 min <sup>-1</sup>	30,000 min <sup>-1</sup>	20,000 min <sup>-1</sup>	16,000 min <sup>-1</sup>	12,000 min <sup>-1</sup>	40,000 min <sup>-1</sup>	30,000 min <sup>-1</sup>	20,000 min <sup>-1</sup>	16,000 min <sup>-1</sup>	12,000 min <sup>-1</sup>
	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$
	12	14	15	19	27	12	14	16	20	26	10	12	15	18	26
Grit															
#60	49501	49511	49521	49531	49541	49551	49561	49571	49581	49591	49601	49611	49621	49631	49641
#150	49502	49512	49522	49532	49542	49552	49562	49572	49582	49592	49602	49612	49622	49632	49642
#320	49503	49513	49523	49533	49543	49553	49563	49573	49583	49593	49603	49613	49623	49633	49643

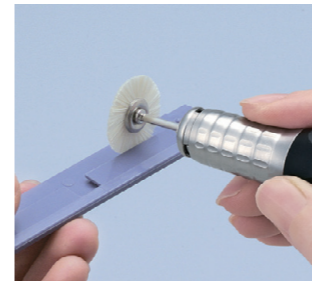
3 pcs./pack Cap Seamless Abrasives (Special Rubber Holder)

	40,000 min <sup>-1</sup>	30,000 min <sup>-1</sup>	20,000 min <sup>-1</sup>	16,000 min <sup>-1</sup>	12,000 min <sup>-1</sup>	40,000 min <sup>-1</sup>	30,000 min <sup>-1</sup>	20,000 min <sup>-1</sup>	16,000 min <sup>-1</sup>	12,000 min <sup>-1</sup>	40,000 min <sup>-1</sup>	30,000 min <sup>-1</sup>	20,000 min <sup>-1</sup>	16,000 min <sup>-1</sup>	12,000 min <sup>-1</sup>
	$\phi 5$	$\phi 7$	$\phi 10$	$\phi 13$	$\phi 16$	$\phi 5$	$\phi 7$	$\phi 10$	$\phi 13$	$\phi 16$	$\phi 5$	$\phi 7$	$\phi 10$	$\phi 13$	$\phi 16$
	11	13	15	19	26	11	13	15	19	26	10	12	15	19	26
	$\phi 3.0$	$\phi 3.6$	$\phi 3.7$	$\phi 3.9$	$\phi 4.2$	$\phi 3.6$	$\phi 3.8$	$\phi 4.1$	$\phi 4.3$	$\phi 4.5$	$\phi 3.7$	$\phi 3.8$	$\phi 4.0$	$\phi 4.2$	$\phi 4.5$
	49505	49515	49525	49535	49545	49555	49565	49575	49585	49595	49605	49615	49625	49635	49645

POLISHING BRUSHES

Selection and Use of Polishing Brushes

- ◆ Selection of Brush Materials :  
Brushes should be selected according to the desired finish.
- ◆ Length and Diameter of Wire :  
Longer brush wires are very flexible and best suited to polishing. Shorter brush wires are suited to heavier cutting. Before using, cut the brush wires to the required length.
- ◆ Density of Wire Material :  
Higher density wires cut quicker due to their greater rigidity.
- ◆ Brushing Pressure :  
Using the edge of the applied perpendicular brush to the polishing surface is the most effective method. Use pressure sufficient to deflect the brush tips 1 to 2 mm.
- ◆ Rotation Direction of Brush :  
Set rotation direction of the micro-grinder considering the lay of the bristles. (Nakanishi micro-grinders can rotate in either direction)
- ◆ Suitable Brush Rotation Speed :  
Using brushes at less than the maximum allowable speed makes the brush last longer. Confirm suitable rotation speed by test brushing a small area at first.
- ◆ Features of Polishing Brushes :  
The brushes conform to the polishing surface and result in uniform surface finishes. Brushes are superior tools for finishing compared to other tools.



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

SHANK  $\phi 2.34, \phi 3.0$

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

	20,000 min <sup>-1</sup>	15,000 min <sup>-1</sup>
	$\phi 17$	$\phi 25$
	$\phi 9$	$\phi 10$
	45	47
$\phi 2.34$	50102	50105
$\phi 3.0$	50112	50115

SHANK  $\phi 2.34, \phi 3.0$

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

	20,000 min <sup>-1</sup>	15,000 min <sup>-1</sup>
	$\phi 17$	$\phi 25$
	$\phi 9$	$\phi 10$
	45	47
$\phi 2.34$	50122	50125
$\phi 3.0$	50132	50135

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

	20,000 min <sup>-1</sup>	15,000 min <sup>-1</sup>
	$\phi 15$	$\phi 23$
	$\phi 9$	$\phi 10$
	43	45
$\phi 2.34$	50141	50144
$\phi 3.0$	50151	50154

SHANK  $\phi 2.34, \phi 3.0$

10 pcs./pack

Soft Type

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

	18,000 min <sup>-1</sup>
	$\phi 15$
	$\phi 9$
	45
$\phi 2.34$	50161
$\phi 3.0$	50171

10 pcs./pack

Hard Type

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

	15,000 min <sup>-1</sup>	10,000 min <sup>-1</sup>	7,000 min <sup>-1</sup>
	$\phi 13$	$\phi 20$	$\phi 25$
	$\phi 10$	$\phi 16$	$\phi 21$
	43	50	57
$\phi 2.34$	50251	50256	50257
$\phi 3.0$	50255	50258	50259

SHANK  $\phi 2.34, \phi 3.0$

10 pcs./pack

Hard Type

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

	15,000 min <sup>-1</sup>	10,000 min <sup>-1</sup>	7,000 min <sup>-1</sup>
	$\phi 13$	$\phi 20$	$\phi 25$
	$\phi 10$	$\phi 16$	$\phi 21$
	43	50	57
$\phi 2.34$	50261	50266	50267
$\phi 3.0$	50265	50268	50269

10 pcs./pack

Medium Type

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

	10,000 min <sup>-1</sup>	8,000 min <sup>-1</sup>
	$\phi 13$	$\phi 13$
	$\phi 10$	$\phi 10$
	43	43
$\phi 2.34$	50271	50281
$\phi 3.0$	50275	50285

\* 50285 is diameter  $\phi 11$ .

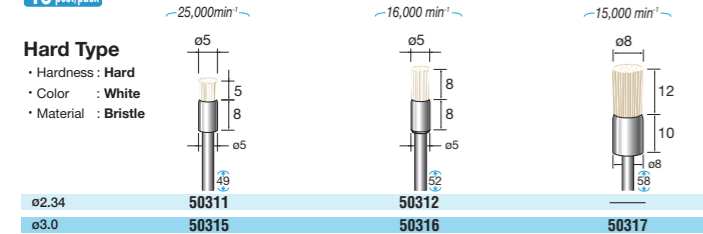
**POLISHING BRUSHES**

SHANK **ø2.34, ø3.0**

10 pcs./pack

**Hard Type**

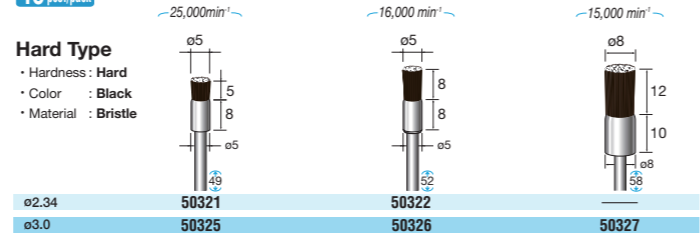
- Hardness : Hard
- Color : White
- Material : Bristle



10 pcs./pack

**Hard Type**

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

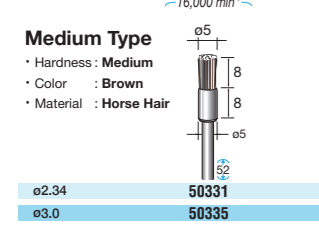


SHANK **ø2.34, ø3.0**

10 pcs./pack

**Medium Type**

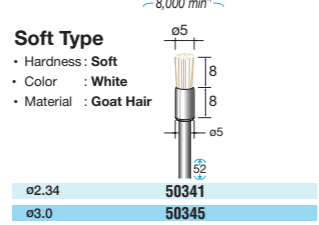
- Hardness : Medium
- Color : Brown
- Material : Horse Hair



10 pcs./pack

**Soft Type**

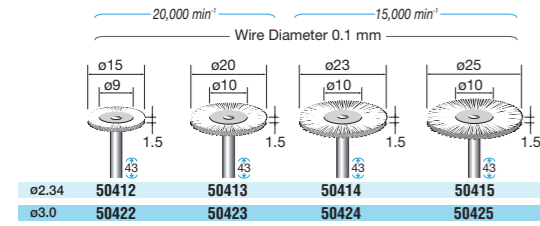
- Hardness : Soft
- Color : White
- Material : Goat Hair



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

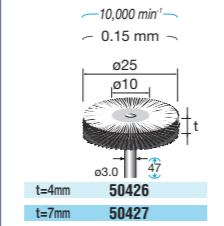
SHANK **ø2.34, ø3.0** **Stainless**

10 pcs./pack

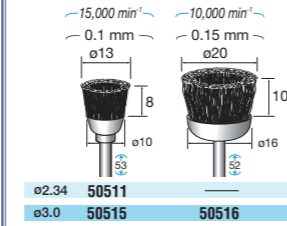


SHANK **ø3.0** **Stainless**

5 pcs./pack

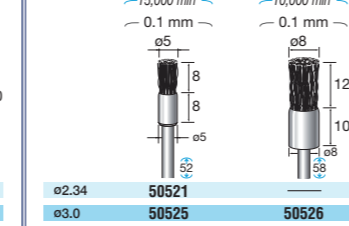


10 pcs./pack



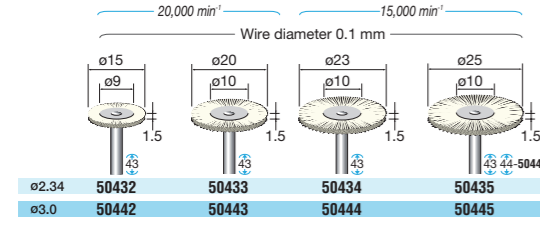
SHANK **ø2.34, ø3.0** **Stainless**

10 pcs./pack



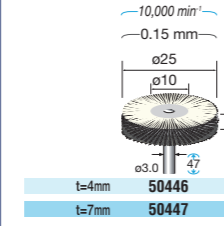
SHANK **ø2.34, ø3.0** **Steel**

10 pcs./pack

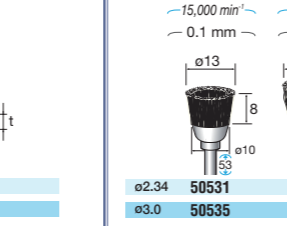


SHANK **ø3.0** **Steel**

5 pcs./pack

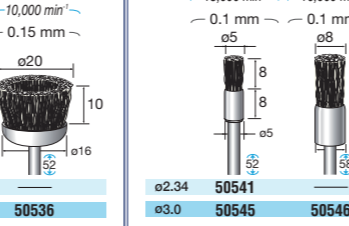


10 pcs./pack



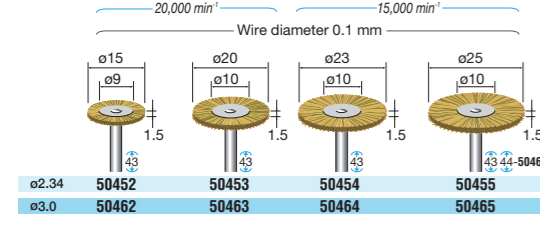
SHANK **ø2.34, ø3.0** **Steel**

10 pcs./pack



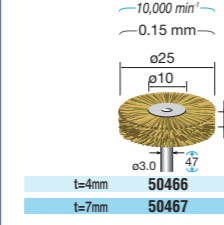
SHANK **ø2.34, ø3.0** **Brass**

10 pcs./pack



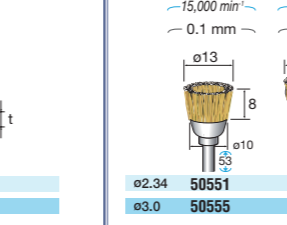
SHANK **ø3.0** **Brass**

5 pcs./pack



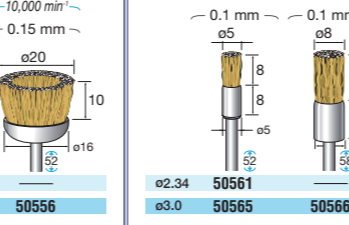
SHANK **ø2.34, ø3.0** **Brass**

10 pcs./pack

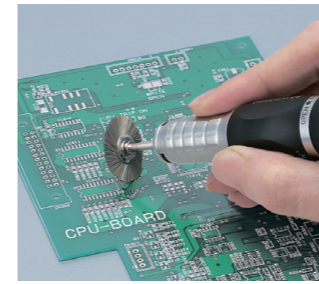


SHANK **ø2.34, ø3.0** **Brass**

10 pcs./pack



**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]



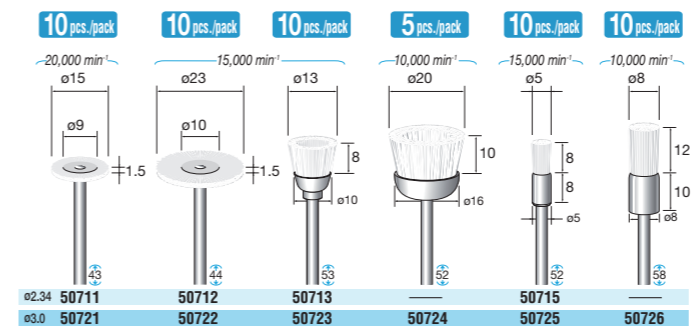
**Heatproof Nylon Brush**  
Wire diameter [0.2 mm]



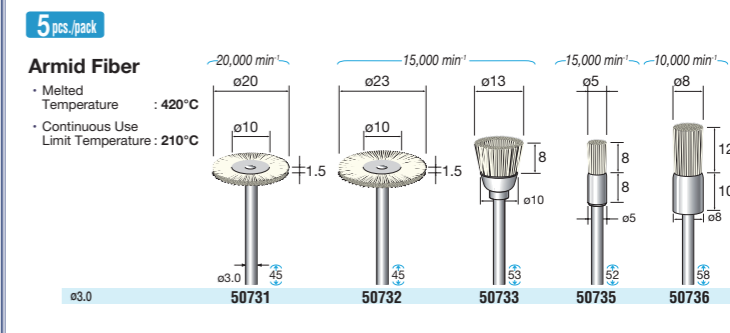
**Nylon Brush**  
contained proof material against static electricity  
Wire diameter [0.15 mm]

SHANK **ø2.34, ø3.0**

**Nylon Brush** Wire diameter [0.2 mm]



**Heatproof Nylon Brush** Wire diameter [0.2 mm]

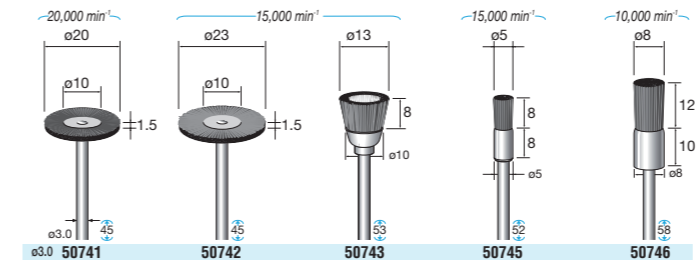


**Arm'd Fiber**

- Melted Temperature : 420°C
- Continuous Use Limit Temperature : 210°C

SHANK **ø3.0**

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



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



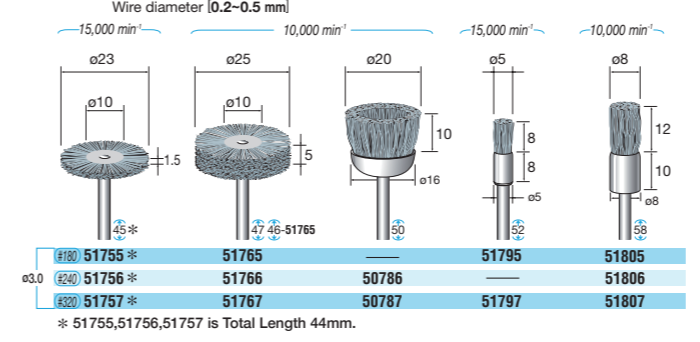
**Abrasive Impregnated (GC) Nylon Brush**  
Wire diameter [0.2-0.5 mm]



**Diamond Impregnated Nylon Brush**  
Wire diameter [0.2-0.5 mm]

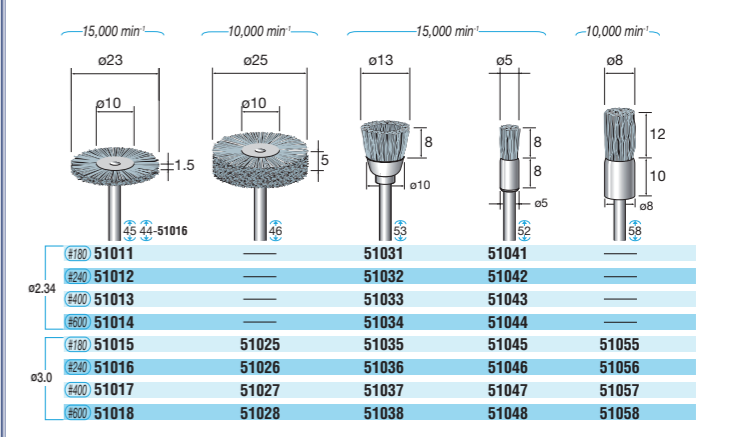
SHANK **ø2.34, ø3.0**

**Abrasive Impregnated (GC) Nylon Brush** Wire diameter [0.2-0.5 mm]



\* 51755,51756,51757 is Total Length 44mm.

**Diamond Impregnated Nylon Brush** Wire diameter [0.2-0.5 mm]





## INSIDE POLISHING BRUSHES



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

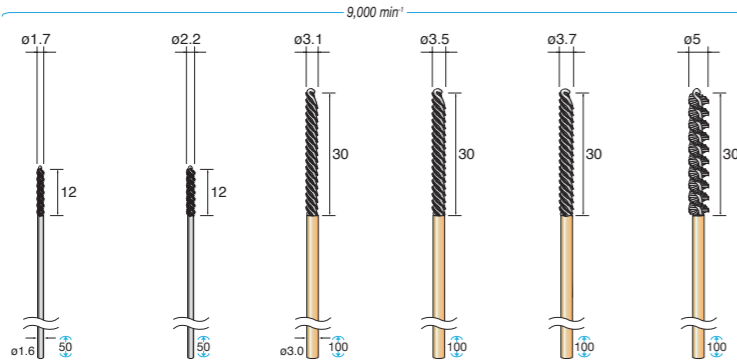


- Abrasive Impregnated Nylon Brush
- Bristle Brush
- Wire Brush

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

### SHANK $\phi 1.6, \phi 3.0$

2 pcs./pack

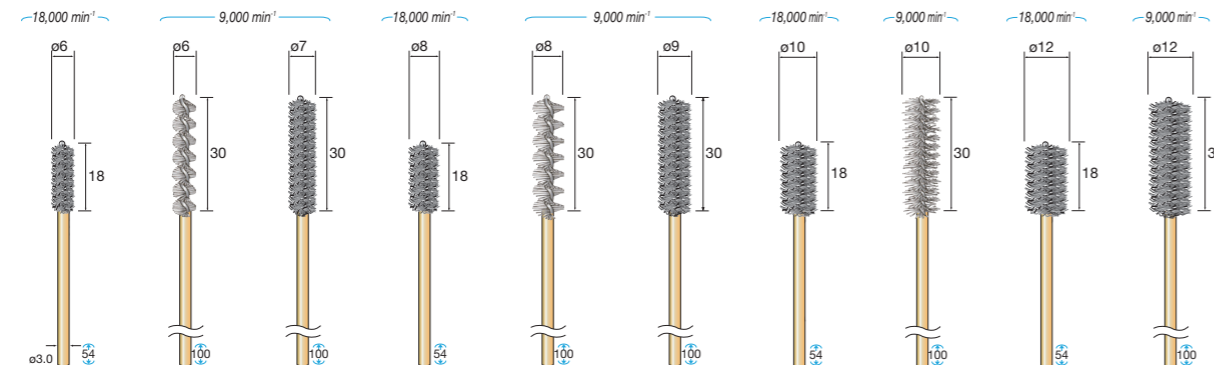


#### Brush Materials

Abrasive Impregnated Nylon Brush (GC)	#500 51575	51576	51577	51578	51579	51580
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### SHANK $\phi 3.0$

1 pc./pack

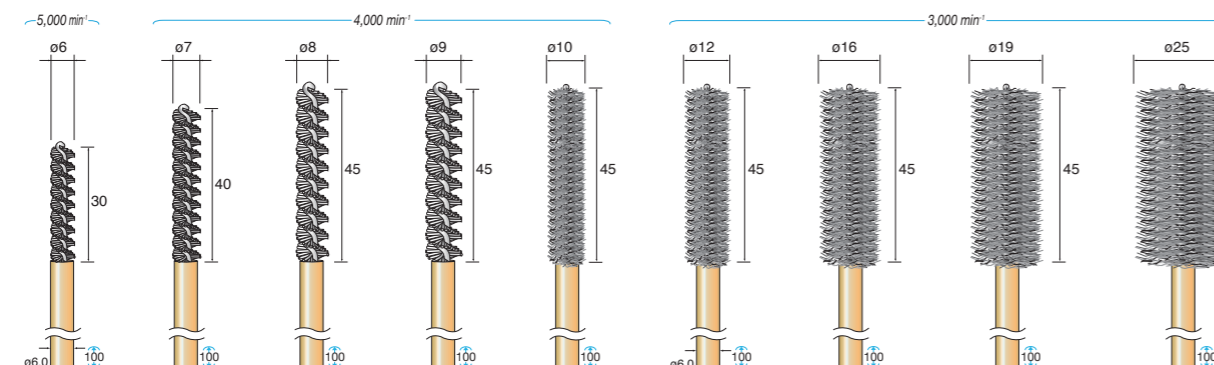


#### Brush Materials

Abrasive Impregnated Nylon Brush (GC)	#320 51581			#320 51582		#320 51583			
Abrasive Impregnated Nylon Brush (GC)	#600 51586			#600 51587		#600 51588			
Bristle Brush (Quality: Bristle / Hard / Black)	51601			51602		51603			
Wire Brush (Stainless Wire: Wire Diameter 0.1mm)	51641	51621	51626	51642	51622	51627	51643	51623	51644
Wire Brush (Stainless Wire: Wire Diameter 0.15mm)	51631	51632	51633	51634	51635	51636	51637	51638	51639

### SHANK $\phi 6.0$

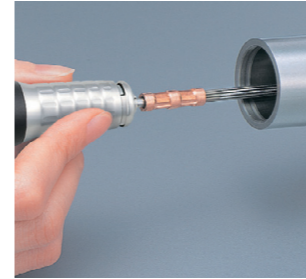
1 pc./pack



#### Brush Materials

Abrasive Impregnated Nylon Brush (GC)	#500 51591	#120 51592	#120 51593	#120 51594	#120 51595	#120 51596	#120 51597	#120 51598	#120 51599
	(Wire Diameter 0.3mm)	(Wire Diameter 0.55mm)	(Wire Diameter 0.55mm)	(Wire Diameter 0.55mm)	(Wire Diameter 0.55mm)	(Wire Diameter 0.55mm)	(Wire Diameter 0.55mm)	(Wire Diameter 0.55mm)	(Wire Diameter 0.55mm)
Wire Brush (Stainless Wire)	51611	51612	51613	51614	51615	51616	51617	51618	51619
	(Wire Diameter 0.08mm)	(Wire Diameter 0.1mm)	(Wire Diameter 0.1mm)	(Wire Diameter 0.1mm)	(Wire Diameter 0.15mm)	(Wire Diameter 0.15mm)	(Wire Diameter 0.15mm)	(Wire Diameter 0.15mm)	(Wire Diameter 0.15mm)

## WIRE LAPPING TOOLS

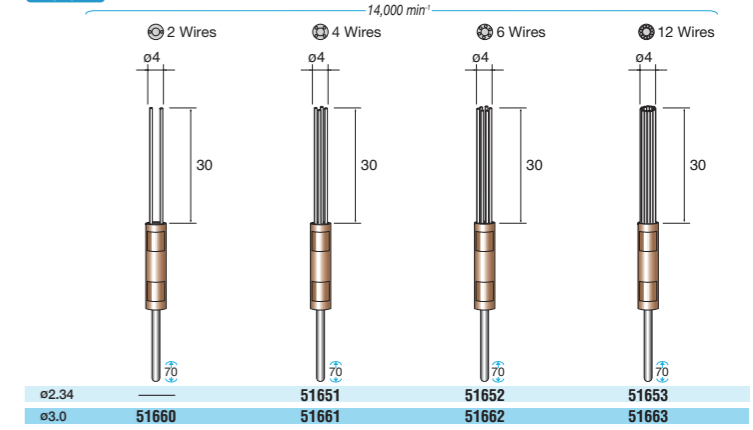


Wire lapping tools are made from banded piano wire. Ideal for burr removal and finishing of metals and plastics. They are also suited to polishing with abrasive compounds.

⚠ 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 pc./pack



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

Diamond / CBN

Carbide Cutters

Specialty Tools

Mounted Points

Rubberized Abrasives

Flap Wheels

Polishing Brushes

Felt Bobs

Abrasive Compounds & Polishing Tools

NSK Exclusive Tools