

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 ⁻¹	30,000 min ⁻¹	20,000 min ⁻¹	16,000 min ⁻¹	12,000 min ⁻¹	40,000 min ⁻¹	30,000 min ⁻¹	20,000 min ⁻¹	16,000 min ⁻¹	12,000 min ⁻¹	40,000 min ⁻¹	30,000 min ⁻¹	20,000 min ⁻¹	16,000 min ⁻¹	12,000 min ⁻¹	
	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$	$\phi 7$	$\phi 9$	$\phi 12$	$\phi 15$	$\phi 18$	
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 ⁻¹	30,000 min ⁻¹	20,000 min ⁻¹	16,000 min ⁻¹	12,000 min ⁻¹	40,000 min ⁻¹	30,000 min ⁻¹	20,000 min ⁻¹	16,000 min ⁻¹	12,000 min ⁻¹	40,000 min ⁻¹	30,000 min ⁻¹	20,000 min ⁻¹	16,000 min ⁻¹	12,000 min ⁻¹	
	$\phi 5$	$\phi 7$	$\phi 10$	$\phi 13$	$\phi 16$	$\phi 5$	$\phi 7$	$\phi 10$	$\phi 13$	$\phi 16$	$\phi 5$	$\phi 7$	$\phi 10$	$\phi 13$	$\phi 16$	
						60°	60°	60°	60°	60°						
	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 ⁻¹	15,000 min ⁻¹
	$\phi 17$	$\phi 25$
	$\phi 9$	$\phi 10$
$\phi 2.34$	50102	50103
$\phi 3.0$	50112	50113
	50104	50105
	50114	50115
	50116	

SHANK $\phi 2.34, \phi 3.0$

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

	20,000 min ⁻¹	15,000 min ⁻¹
	$\phi 17$	$\phi 25$
	$\phi 9$	$\phi 10$
$\phi 2.34$	50122	50123
$\phi 3.0$	50132	50133
	50124	50125
	50134	50135
	50136	

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

	20,000 min ⁻¹	15,000 min ⁻¹
	$\phi 15$	$\phi 23$
	$\phi 9$	$\phi 10$
$\phi 2.34$	50141	50143
$\phi 3.0$	50151	50153
	50144	50154

SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack

Soft Type

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

	18,000 min ⁻¹
	$\phi 15$
	$\phi 9$
$\phi 2.34$	50161
$\phi 3.0$	50171
	$\phi 20$
	$\phi 10$
	50163
	50173
	$\phi 23$
	$\phi 10$
	50164
	50174

10 pcs./pack

Hard Type

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

	15,000 min ⁻¹	10,000 min ⁻¹	7,000 min ⁻¹
	$\phi 13$	$\phi 20$	$\phi 25$
	$\phi 8$	$\phi 10$	$\phi 15$
	$\phi 10$	$\phi 16$	$\phi 21$
$\phi 2.34$	50251	50256	50257
$\phi 3.0$	50255		

SHANK $\phi 2.34, \phi 3.0$

10 pcs./pack

Hard Type

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

	15,000 min ⁻¹	10,000 min ⁻¹	7,000 min ⁻¹
	$\phi 13$	$\phi 20$	$\phi 25$
	$\phi 8$	$\phi 10$	$\phi 15$
	$\phi 10$	$\phi 16$	$\phi 21$
$\phi 2.34$	50261	50266	50267
$\phi 3.0$	50265		

10 pcs./pack

Medium Type

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

	10,000 min ⁻¹	8,000 min ⁻¹
	$\phi 13$	$\phi 13$
	$\phi 8$	$\phi 8$
	$\phi 10$	$\phi 10$
$\phi 2.34$	50271	50281
$\phi 3.0$	50275	50285

* 50285 is diameter $\phi 11$.

*Order in standard package quantities.

POLISHING BRUSHES

SHANK **ø2.34, ø3.0**

10 pcs./pack

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

~25,000 min⁻¹ ~16,000 min⁻¹ ~15,000 min⁻¹

ø2.34	50311	50312	50317
ø3.0	50315	50316	50317

10 pcs./pack

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

~25,000 min⁻¹ ~16,000 min⁻¹ ~15,000 min⁻¹

ø2.34	50321	50322	50327
ø3.0	50325	50326	50327

SHANK **ø2.34, ø3.0**

10 pcs./pack

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

~16,000 min⁻¹ ~8,000 min⁻¹

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

ø2.34	50331	50341
ø3.0	50335	50345

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

~20,000 min⁻¹ ~15,000 min⁻¹

Wire Diameter 0.1 mm

ø2.34	50412	50413	50414	50415
ø3.0	50422	50423	50424	50425

SHANK **ø3.0** **Stainless**

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

~10,000 min⁻¹ ~15,000 min⁻¹ ~10,000 min⁻¹

0.15 mm 0.1 mm 0.15 mm

t=4mm	50426	50511	50516
t=7mm	50427	50515	50516

SHANK **ø2.34, ø3.0** **Stainless**

10 pcs./pack

~15,000 min⁻¹ ~10,000 min⁻¹

0.1 mm 0.1 mm

ø2.34	50521	50526
ø3.0	50525	50526

SHANK **ø2.34, ø3.0** **Steel**

10 pcs./pack

~20,000 min⁻¹ ~15,000 min⁻¹

Wire diameter 0.1 mm

ø2.34	50432	50433	50434	50435
ø3.0	50442	50443	50444	50445

SHANK **ø3.0** **Steel**

5 pcs./pack

~10,000 min⁻¹

0.15 mm

t=4mm	50446
t=7mm	50447

SHANK **ø2.34, ø3.0** **Steel**

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

~15,000 min⁻¹ ~10,000 min⁻¹

0.1 mm 0.1 mm

ø2.34	50531	50541	50546
ø3.0	50535	50545	50546

SHANK **ø2.34, ø3.0** **Brass**

10 pcs./pack

~20,000 min⁻¹ ~15,000 min⁻¹

Wire diameter 0.1 mm

ø2.34	50452	50453	50454	50455
ø3.0	50462	50463	50464	50465

SHANK **ø3.0** **Brass**

5 pcs./pack

~10,000 min⁻¹

0.15 mm

t=4mm	50466
t=7mm	50467

SHANK **ø2.34, ø3.0** **Brass**

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

~15,000 min⁻¹ ~10,000 min⁻¹

0.1 mm 0.1 mm

ø2.34	50551	50561
ø3.0	50555	50565

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]

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

~20,000 min⁻¹ ~15,000 min⁻¹ ~10,000 min⁻¹ ~15,000 min⁻¹ ~10,000 min⁻¹

ø2.34	50711	50712	50713	50724	50715	50726
ø3.0	50721	50722	50723	50724	50725	50726

Heatproof Nylon Brush Wire diameter [0.2 mm]

5 pcs./pack

Arm'd Fiber
 • Melted Temperature : 420°C
 • Continuous Use Limit Temperature : 210°C

~20,000 min⁻¹ ~15,000 min⁻¹ ~15,000 min⁻¹ ~10,000 min⁻¹

ø3.0	50731	50732	50733	50735	50736
------	-------	-------	-------	-------	-------

SHANK **ø3.0**

5 pcs./pack **Nylon Brush** contained proof material against static electricity Wire diameter [0.15 mm]

~20,000 min⁻¹ ~15,000 min⁻¹ ~15,000 min⁻¹ ~10,000 min⁻¹

ø3.0	50741	50742	50743	50745	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 **ø2.34, ø3.0**

5 pcs./pack **Abrasive Impregnated (GC) Nylon Brush** Wire diameter [0.2-0.5 mm]

~15,000 min⁻¹ ~10,000 min⁻¹ ~15,000 min⁻¹ ~10,000 min⁻¹

ø2.34	51755	51765	51795	51805
ø3.0	51756	51766	51786	51806
ø3.0	51757	51767	51797	51807

1 pc./pack **Diamond Impregnated Nylon Brush** Wire diameter [0.2-0.5 mm]

~15,000 min⁻¹ ~10,000 min⁻¹ ~15,000 min⁻¹ ~10,000 min⁻¹

ø2.34	51011	51031	51041
ø3.0	51012	51032	51042
ø3.0	51013	51033	51043
ø3.0	51014	51034	51044
ø3.0	51015	51035	51045
ø3.0	51016	51036	51046
ø3.0	51017	51037	51047
ø3.0	51018	51038	51048

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

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.

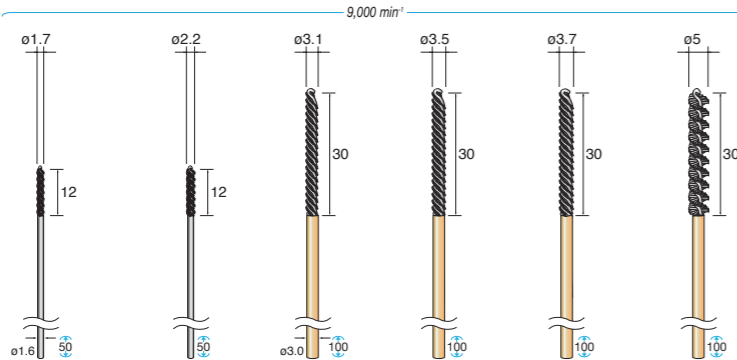


- Abrasive Impregnated Nylon Brush
- Bristle Brush
- Wire Brush

⚠ 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

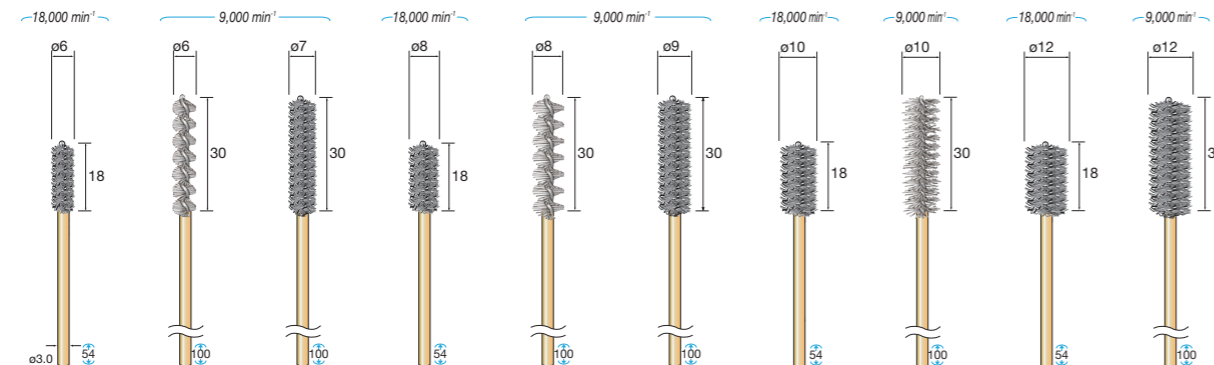


Brush Materials

Abrasive Impregnated Nylon Brush (GC)	#500 51575	51576	51577	51578	51579	51580
---------------------------------------	------------	-------	-------	-------	-------	-------

SHANK $\phi 3.0$

1 pc./pack

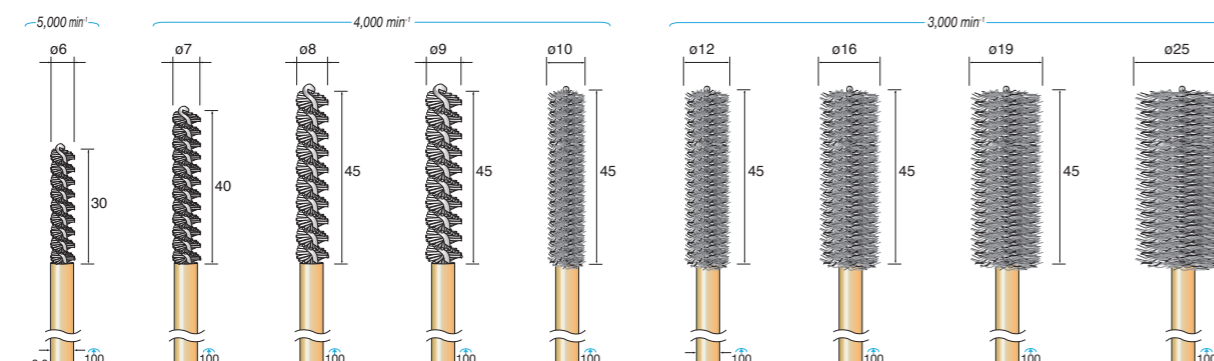


Brush Materials

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 $\phi 6.0$

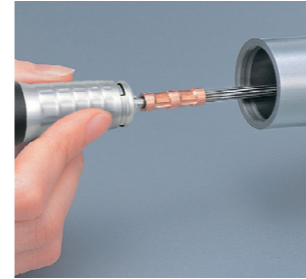
1 pc./pack



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

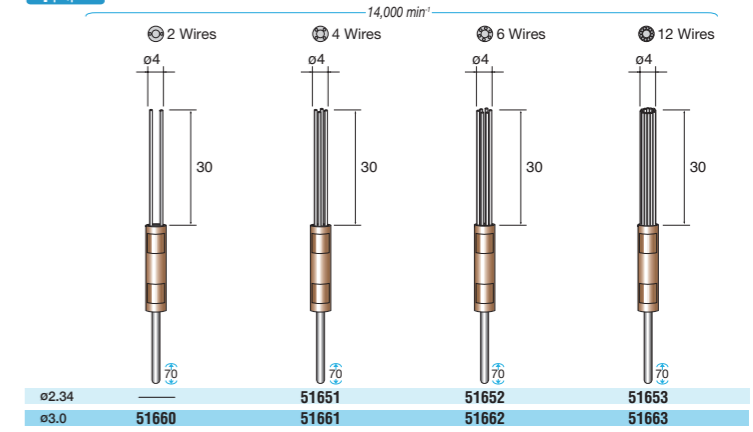


Wire lapping tools are made from banded piano wire. Ideal for burr removal and finishing of metals and plastics. They are also suited to polishing with abrasive compounds.

⚠ 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



$\phi 2.34$	51651	51652	51653
$\phi 3.0$	51660	51661	51662