

PRECISION PENCIL TYPE MICRO AIR GRINDER

IMPULSE Series

IMPULSE SERIES ◀◀



- ① 60,000 min⁻¹ NSP-601
- ② 40,000 min⁻¹ NA45-400 (60°)
- ③ 23,000 min⁻¹ NA45-230 (60°)
- ④ 23,000 min⁻¹ NA90-230 (90°)



- Best for high precision grinding, because IMPULSE has smooth rotational without the burs runout or vibration, even when motor speed is remarkable high.
- Incorporates a special vane air motor. Motor speed remains stable even under varying loads.
- Silencer on the exhaust air hose keeps the grinder very quiet.
- Use of high precision components in the IMPULSE provides excellent endurance to maintain micron specification.

Mounting & Dismounting Cutting Tool

Insert the spanner provided into the hole on the spindle and open or close the chuck with the Chuck Wrench to exchange the cutting tool.

Exchangeable Collet

Standard Size : ϕ 3.0 mm (CHS-3.0)
Optional Collets : CHS group ϕ 0.8 mm~ ϕ 3.175 mm

Twist Free Hose

To prevent the twisting of hose, 360° Twist-Free Joint connects the motor and the hose.



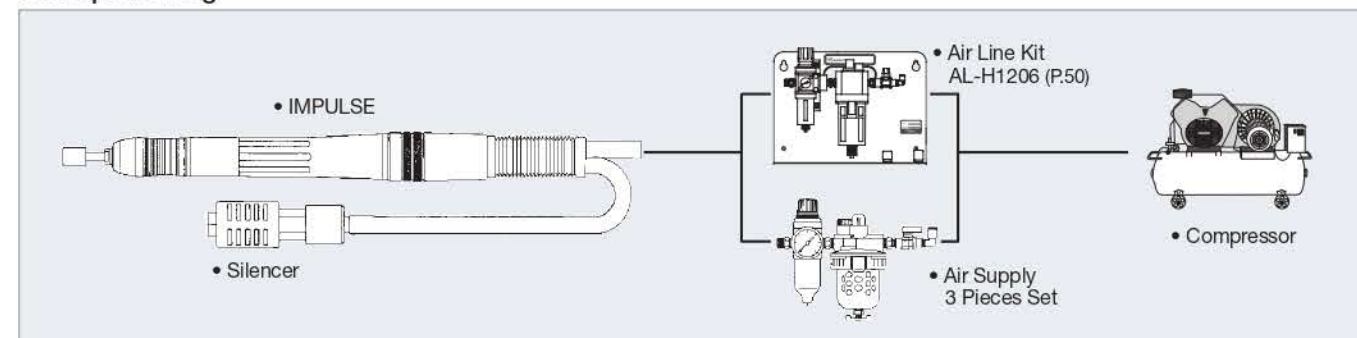
ON / OFF Ring

Easy to switch ON/OFF and to adjust motor speed, turning right & left.

Connecting Part To Air Line Kit

Built in air filter in air inlet coupling (the connection to air line kit).

Set-Up Drawing



■ Use Air Line Kit AL-H1206 or air supply 3 pieces set. (Air Filter, Air Regulator, Lubricator)

Electrically Driven

Air Driven

ROTUS IMPULSE PRESTO II

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IMPULSE AIR GRINDER ◀◀

PRECISION AIR GRINDER

Straight/60° IMPULSE



Straight IMPULSE

60,000 min⁻¹

Code No.	1034
Model	NSP-601

Standard Size Collet

ø3.0 mm (CHS-3.0)

Optional Collets :
CHS group are shown in page (P.56)



- Straight type is designed for high speed precision grinding.
- The front part of the NSP-601 model is made of stainless steel ; the back portion of aluminum alloy.
- The safety design of clamping the chuck up to 29 mm maintains stable rotation of the cutting tool.
- The air motor is assembled with a special vane design which keeps constant speed under load providing stable grinding and polishing operation.

60° IMPULSE

40,000 min⁻¹

Code No.	1035
Model	NA45-400

Standard Size Collet

ø3.0 mm (CHS-3.0)

Optional Collets :
CHS group are shown in page (P.56)

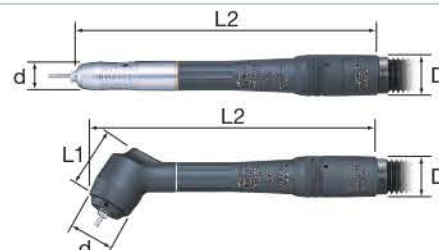


- Angled model housings are all aluminum alloy.
- Ideal for removing sharp edges at corners and surfaces difficult to reach with straight type.



Specifications
 Air Consumption : 165 NL/min
 Proper Air Pressure : 0.4~0.6 MPa
 Inlet Air Hose Length : 1.5 m
 Eraser Hose Length : 1.2 m

Standard Accessories
 • Collet ø3.0 mm (CHS-3.0) : 1 pc.
 • Hose (K-213) : 1.5 m • Silencer (K-208) : 1 pc.
 • Spanner (8 x 5) : 1 pc. • Bar Wrench (K-212) : 1 pc.



Code No.	d	D	L1	L2	Weight	Speed	Collet
1034	ø17	ø23.9	—	168	165 g	60,000 min ⁻¹	ø0.8~ø3.175 mm
1035	ø28.6	ø23.9	39.6	161	210 g	40,000 min ⁻¹	CHS Group (P.56)

IMPULSE AIR GRINDER ◀◀

PRECISION AIR GRINDER

Super Cut IMPULSE



Exclusive Tools P.69-72

90° Super Cut IMPULSE

23,000 min⁻¹

Code No.	1036
Model	NA90-230

Standard Size Collet

ø3.0 mm (CHS-3.0)

Optional Collets :
CHS group are shown in page (P.56)



Code No.	Description	Package
42423	Mounted Points	1 pc.
64822	Rubber Pad	1 pc.
64836	Cup Wheel	1 pc./pack
64837	Cup Wheel	1 pc./pack
64172	Sand Paper Disk ø31 #120	2 pcs./pack
64175	Sand Paper Disk ø31 #320	2 pcs./pack
64177	Sand Paper Disk ø31 #600	2 pcs./pack
64179	Sand Paper Disk ø31 #1000	2 pcs./pack

▶ Mounted Points → NAKANISHI "POLISHING TOOLS" Catalog
 ▶ Disks → P.69-71

Exclusive Tools P.69-72



Please refer to next page.

60° Super Cut IMPULSE

23,000 min⁻¹

Code No.	1037
Model	NA45-230

Standard Size Collet

ø3.0 mm (CHS-3.0)

Optional Collets :
CHS group are shown in page (P.56)



Code No.	Description	Package
42423	Mounted Points	1 pc.
64822	Rubber Pad	1 pc.
64836	Cup Wheel	1 pc./pack
64837	Cup Wheel	1 pc./pack
64172	Sand Paper Disk ø31 #120	2 pcs./pack
64175	Sand Paper Disk ø31 #320	2 pcs./pack
64177	Sand Paper Disk ø31 #600	2 pcs./pack
64179	Sand Paper Disk ø31 #1000	2 pcs./pack

▶ Mounted Points → NAKANISHI "POLISHING TOOLS" Catalog
 ▶ Disks → P.69-71

Exclusive Tools P.69-72



Please refer to next page.



Specifications
 Air Consumption : 165 NL/min
 Proper Air Pressure : 0.4~0.6 MPa
 Inlet Air Hose Length : 1.5 m
 Eraser Hose Length : 1.2 m

Standard Accessories
 • Grindstone Axis (NCH-01) : 1 pc.
 • Silencer (K-208) : 1 pc. • Spanner (8x5) : 1 pc.
 • Bar Wrench (K-212) : 2 pcs. • Hose (K-213) : 1.5 m
 • Allen Wrench (1.5 mm) : 1 pc.



Code No.	d	D	L1	L2	Weight	Speed	Collet
1036	ø33.5	ø23.9	34	156	190 g	23,000 min ⁻¹	ø0.8~ø3.175 mm
1037	ø33.5	ø23.9	39.6	163	190 g	23,000 min ⁻¹	CHS Group (P.56)

The Exchangeable Attachment Chart

— Cup Wheel (Pre finishing) —

— Polishing Sander (Abrasive finishing) —

— Rubber Cup Wheel (Abrasive finishing) —

- Grindstone Axis NCH-01
- Cup Wheel
- Polishing Sander
- Rubber Cup Wheel

— Rubber Pad (Abrasive finishing) —

- Grindstone Axis NCH-01
- Rubber Pad (64821, 64822)
- Sand Paper Disk
- Diamond Disk
- Felt Disk (P.69~71)

— Mounted Point (Grinding · Polishing) —

Remove Head Cover

- Collet ø3.0 CHS Group (P.56)
- Mounted Point

Rubber Pad

- Disks are pasted on the Rubber Pad. (P.69~71)

5 pcs./pack
23,000 min⁻¹ Max.

Code No. **64821**

5 pcs./pack
23,000 min⁻¹ Max.

Code No. **64822**

Cup Wheel

- For pre finishing.

12 pcs./pack
23,000 min⁻¹ Max.

Grit	Grade Hardness	Code No. (ø20)	Code No. (ø30)
# 36	Standard	64830	64835
# 46	Hard	64831	64836
# 80	Standard	64832	64837
# 80	Hard		64838

Polishing Sander

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

5 pcs./pack
23,000 min⁻¹ Max.

Grit	Code No.
# 80	64842
# 120	64844
# 180	64846
# 240	64847
# 400	64849

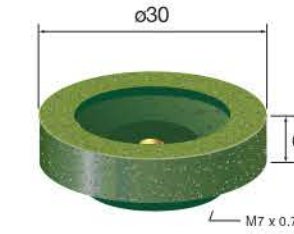
Convenient Assorted set for trial polishing
All grain size (5 types x each 1 pc.)
Total 5 pcs.-pack
Code No. **64850** 5 pcs./pack

Rubber Cup Wheel

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



NA90-230



10 pcs./pack 23,000 min⁻¹ Max.

Grit	Color	Code No.
# 60	Brown	64851
# 80	Red	64852
# 120	Blue	64853
# 180	Olive	64854
# 220	Green	64855
# 320	Brown	64856

Convenient Assorted set for trial polishing
All grain size (6 types x each 2 pcs.)
Total 12 pcs.-pack
Code No. **64859** 12 pcs./pack

Air Line Kit (Automatic Lubricating Device)

Code No. **4506**

Model **AL-H1206**

- Standard Accessories
- Air Pressure Gauge • Air Regulator
 - Air Filter • Lubricator
 - Air ON-OFF Valve
 - Piping Hose (K-275) : 2 m
 - Lubricating Oil (K-211) : 1 pc.



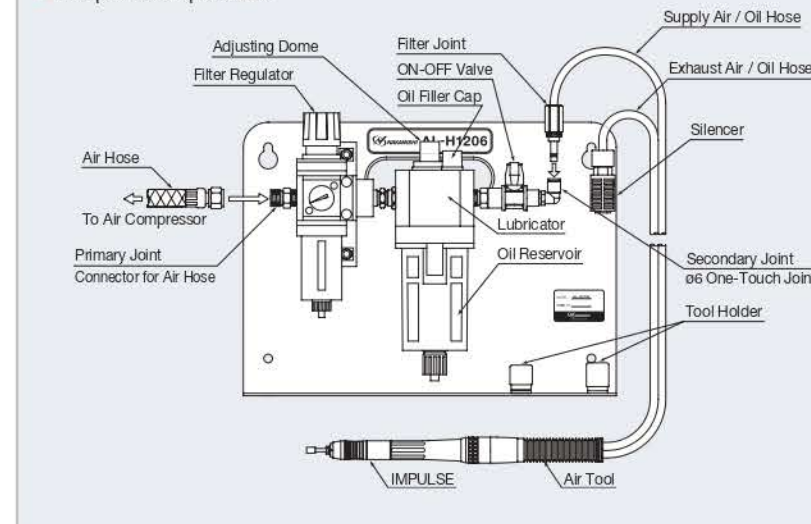
300(W) x 120(D) x 220(H) mm

- Supplies the smooth air flow and automatic lubrication for long life and the stable power.
- By adjustment of auto lubrication & air flow, this will extend the lifetime of air grinder.
- Best for grinding and polishing processes, AL-H1206 air line kit has a compact body with a carrying handle and holder to put the IMPULSE in.








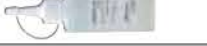

◆ Weight : 2.2 kg ◆ Filter Mesh : 5 μm

Piping Connection Diagram

- Use Air Line Kit AL-H1206 or air supply 3 pieces set. (Air Filter, Air Regulator, Lubricator)
- Coupler is not provided.



IMPULSE Series Spare Parts

Product	Description	Code No.	Model	Fit to
	Grindstone Axis (for Cup Wheel & Rubber Pad)	1045	NCH-01	IMPULSE
	Head Cover	1043	CNA	IMPULSE
	Hose 1.5 m	1038	K-213	IMPULSE
	Silencer Small (w/Metal Fittings)	1061	K-208	IMPULSE
	Spanner 8 x 5	2012	—	IMPULSE
	Bar Wrench (72 mm)	2013	K-212	IMPULSE
	Allen Wrench (1.5 mm)	—	—	IMPULSE Available in the market
	Lubricating Oil (70cc)	1057	K-211	For Air Line Kit AL-H1206
	Lubricating Oil (1L)	1058	K-202	
	Filter Joint (for ø6 Quick Disconnecting Joint)	2039	FJ-02	(For K-213 Hose)

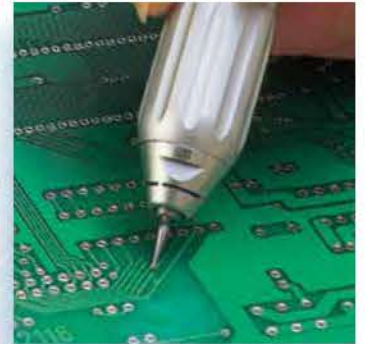
PRESTO II AIR TURBINE GRINDER ◀◀

ULTRA-HIGH SPEED AIR TURBINE GRINDER

PRESTO II

320,000 min⁻¹ ø1.6 mm Bur Only

- Ultra high speed 320,000 min⁻¹ non-lube air turbine.
- It is most suitable for precision processing works such as small precision parts, ceramic, correction of printed circuit board, etc. due to its non-lube handpiece.
- Flexible tubing ensures excellent workability reducing fatigue to the operator's hand for long continuous use.



PRESTO II Standard Set

Code No. **1125**
Model **PR2-304S**

- Standard Equipment
- Presto Handpiece (PR-304) : 1 pc.
 - Air Line Kit (PR2-06) : 1 pc.
 - Foot Controller (AFC-40) : 1 pc.
 - Handpiece Holder (Z014) : 1 pc.



Specifications

Rotating Speed	: 320,000 min ⁻¹
Proper Air Pressure	: 0.25 MPa
Air Consumption	: 40 NL/min
Inside Diameter	: ø1.6 mm Bur Only
Filter Mesh	: 5 µm

PRESTO Handpiece

320,000 min⁻¹

Code No. **1122**
Model **PR-304**



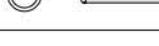
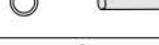

◆ Weight : 71 g (w/o Hose)

- Standard Accessories
- 2 m Hose



- Ultra-high speed no lube air turbine handpiece ideal for delicate processing application.
- Built-in dust protect mechanism developed by NAKANISHI ensures long durability.
- Chip air blows away the cutting powder and cools the cutting tool.
- Flexible tubing ensures excellent workability reducing fatigue to the operator's hand for long continuous use.

PRESTO II Spare Parts

Product	Description / Specifications	Code No.	Model
	PRESTO II Air Line Kit (w/o Lubricator / Filter Mesh 5 µm)	1126	PR2-06
	PRESTO II Cartridge	1120	PR-03
	Foot Controller	1124	AFC-40
	Piping Hose (ø6.0) 2 m Long	2041	K-237
	Air Turbine Hose (ø5.1) 2 m Long	2042	K-238
	Pin Spanner	2002	T-751

ø1.6 mm tools for PRESTO II
Please see the NAKANISHI "POLISHING TOOLS" Catalog



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



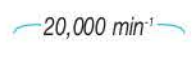

 Always use safety glasses, mask, face guard for your safety.	 Fasten the collet firmly. Make sure the tool is fully installed in the collet to avoid tool slippage.
 Do not touch the tools when in operation. Make sure the work area is neat and there is sufficient light.	 Do not use damaged or broken electric cords and air hoses.
 Do not use the tool where flammable liquids or gases exist.	 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.
 Do not leave operating tools. Confirm that the tool has stopped completely after switching off.	 Keep the tools and products in a cool, dry place.
 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.	 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.
 Fix the work material firmly in a vise and/or other clamping fixture.	 Stop grinding or polishing immediately whenever unusual sounds, vibrations, or wear are found. Restart the work only after the problem is found and corrected.
 Do not wear loose clothing and/or accessories that may be caught in machinery. Long hair should be secured prior to machine operation.	 Only use attachments, parts, consumable articles and accessories produced by NAKANISHI.
 Check all tools carefully before use. Clean the inside of the collet and tool shank, chips or fine metals inside the collet could cause tool slippage and result in damage to machinery or bodily injury.	 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.

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 collet and the top of the tool shank).

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

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....

Code No. **62801~** End Code number on each page

NAKANISHI's EXCLUSIVE TOOLS

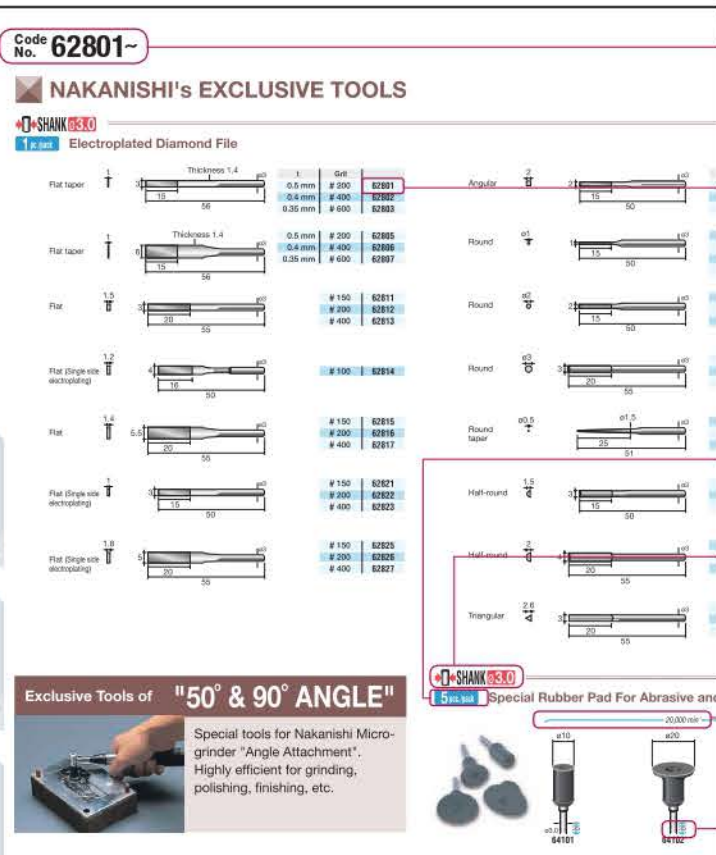
Code number (Order number)

Standard package quantity

Shank diameter of the tool

Maximum allowable speed

Total length of the tool (mm)



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.

NAKANISHI'S EXCLUSIVE TOOLS



1 pc./pack Electroplated Diamond File

Flat taper		Thickness 1.4	t	Grit		Angular		Grit	
			0.5 mm	# 200	62801			# 150	62831
			0.4 mm	# 400	62802			# 200	62832
			0.35 mm	# 600	62803			# 400	62833
Flat taper		Thickness 1.4	0.5 mm	# 200	62805	Round		# 150	62840
			0.4 mm	# 400	62806			# 200	62841
			0.35 mm	# 600	62807			# 400	62842
Flat						Round		# 150	62845
								# 200	62846
								# 400	62847
Flat (Single side electroplating)						Round		# 150	62851
								# 200	62852
								# 400	62853
Flat						Round taper		# 150	62855
								# 200	62856
								# 400	62857
Flat (Single side electroplating)						Half-round		# 150	62865
								# 200	62866
								# 400	62867
Flat (Single side electroplating)						Half-round		# 150	62871
								# 200	62872
								# 400	62873
						Triangular		# 150	62881
								# 200	62882
								# 400	62883

*62815 is thickness 1.4mm.

Exclusive Tools of "60° & 90° ANGLE"

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



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

20,000 min⁻¹

64101	64102	64103
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100 pcs./pack Sand Paper Disk

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

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

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

For Metals	Grit	o11	o21	o31
# 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	
# 800	64119	64129	64149	
# 1,000	64120	64130	64150	

Adhesive Back

For Metals (Black)	Grit	o11	o21	o31
# 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	

Adhesive Back

For Dry type (White)	Grit	o11	o21	o31
# 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	

Adhesive Back

NAKANISHI'S EXCLUSIVE TOOLS

100 pcs./pack Zirconium Disk

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

Grit	o11	o21	o31
# 60	64251	64261	64271
# 80	64252	64262	64272
# 120	64253	64263	64273
# 150	64254	64264	64274

Adhesive Back

20 pcs./pack Fiber Disk

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

Grit	Color	o11	o21	o31
# 120	Brown	64281	64291	64301
# 240	Violet	64282	64292	64302
# 320	Red Brown	64283	64293	64303
# 600	Dark Blue	64284	64294	64304
# 800	Gray	64285	64295	64305
# 1,000	Orange	64286	64296	64306

*Thickness 3 mm Adhesive Back

20 pcs./pack Felt Disk

• Ideal for finishing using abrasives and diamond compounds.

Description	o11	o21	o31
Soft Type Felt Disk (1mm thickness)	64331	64332	64333
Soft Type Felt Disk (2mm thickness)	64335	64336	64337

Adhesive Back

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

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

Description	o11	o21	o31
Felt Disk Chromium Oxide (Blue Rouge) Embedded Type. (2mm thickness)	64341	64342	64343

Adhesive Back

20 pcs./pack Rubber Points Disk

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

Grit	Color	o20	o30
# 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 3 mm Adhesive Back



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

• Moderately hard abrasive grain have great polishing ability.

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

15,000 min⁻¹

For finishing o30 For preliminary finishing o30

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	o11	o21	o31
# 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)

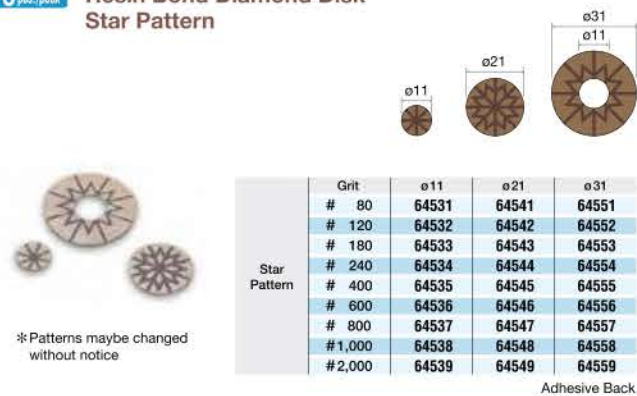
• Electroplated nickel-alloy pellet is strongly adhered to resin base.

Grit	Color	o11	o21	o31
# 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	o11	o21	o31
# 80	64531	64541	64551
# 120	64532	64542	64552
# 180	64533	64543	64553
# 240	64534	64544	64554
# 400	64535	64545	64555
# 600	64536	64546	64556
# 800	64537	64547	64557
# 1,000	64538	64548	64558
# 2,000	64539	64549	64559

Adhesive Back

*Patterns may be changed without notice

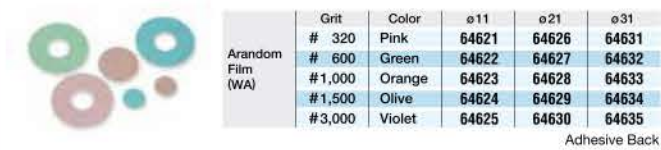
3 pcs./pack Lapping Film Disk Diamond Abrasive



Grit	Color	o11	o21	o31
# 400	Ivory	64601	64606	64611
# 800	Ivory	64602	64607	64612
# 1,500	Ivory	64603	64608	64613
# 3,000	Ivory	64604	64609	64614

Adhesive Back

50 pcs./pack Lapping Film Disk WA Abrasive



Grit	Color	o11	o21	o31
# 320	Pink	64621	64626	64631
# 600	Green	64622	64627	64632
# 1,000	Orange	64623	64628	64633
# 1,500	Olive	64624	64629	64634
# 3,000	Violet	64625	64630	64635

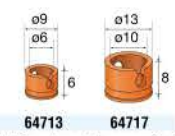
Adhesive Back

SHANK o3.0 Lap Ring



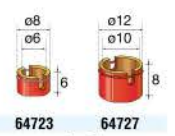
• Plastic and brass lapping rings for use with abrasive and diamond compounds.

10 pcs./pack Replacement Plastic Ring



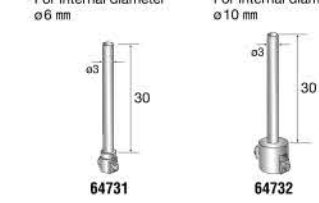
64713 64717

5 pcs./pack Replacement Brass Ring



64723 64727

1 pc./pack Replacement Holder



64731 64732

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.



SHANK o1.6 Steel Cutters For Deep Cross Hole Finishing



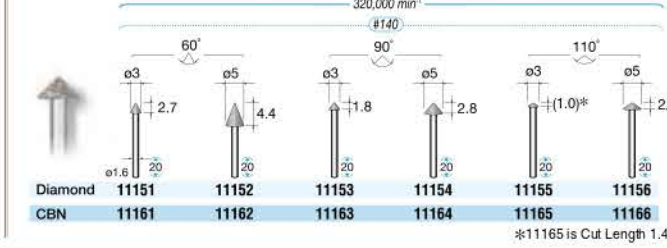
1 pc./pack 64801

SHANK o1.6 Diamond Coated Burs For Deep Cross Hole Finishing



1 pc./pack 11131 11132 11133

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



5 pcs./pack 11151 11152 11153 11154 11155 11156
11161 11162 11163 11164 11165 11166

*11165 is Cut Length 1.4mm.

NAKANISHI's EXCLUSIVE TOOLS

Exclusive Tools of "IMPULSE"

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

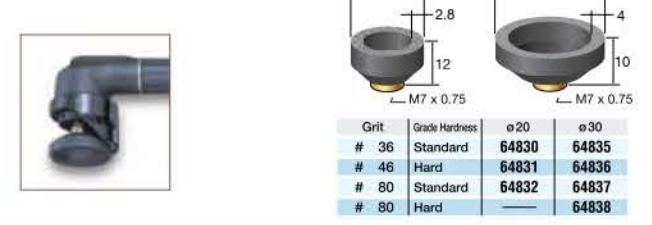


5 pcs./pack Special Rubber Pad for Disk Abrasives



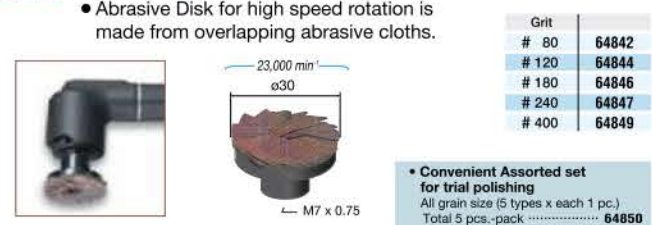
64821 64822

12 pcs./pack Cup Wheel



Grit	Grade Hardness	o20	o30
# 36	Standard	64830	64835
# 46	Hard	64831	64836
# 80	Standard	64832	64837
# 80	Hard	—	64838

5 pcs./pack Polishing Sander



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

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

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

10 pcs./pack Rubber Cup Wheel



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

Grit	Color	o20	o30
# 60	Brown	64851	—
# 80	Red	64852	—
# 120	Blue	64853	—
# 180	Olive	64854	—
# 220	Green	64855	—
# 320	Brown	64856	—

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

Exclusive Tools of "FINE BELT SANDER"



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 = 6 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 64955