

ATTACHMENT TYPE MICRO AIR GRINDER

ROTUS Series



- Interchangeability with a variety of attachments ideal for any applications.
- To achieve high torque, ROTUS air motor is assembled with micron precision between the vanes and the internal surface of the cylinder using NAKANISHI's proprietary techniques.
- Lightweight and compact design.
- Assembled with ON/OFF, speed control and FWD./REV. by the Ring Switch.



ROTUS SERIES ◀◀

A Special Rotary Vane Air Motor is Incorporated

The air motor is utilizes a special vane design which keeps constant speed even under load providing stable grinding and polishing operation.

Excellent quietness with Silencer

By attaching the silencer to the end of the exhaust air tubing, the motor is operated extremely quiet.

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

Ring Type Attachment

Code No.	1147	Model	IR-310
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ROTUS Air Motor

Code No.	1004	Model	IM-301
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Set-Up Drawing



■ Use Air Line Kit AL-H1207F or air supply 3 pieces set. (Air Filter, Air Regulator, Lubricator)



ROTUS Standard Set			
Code No.	1163	Model	ROTUS-IR

Twist Free Hose

To prevent twisting of the hose, 360° Twist- Free Joint connects the motor and the hose. (IM-301)

14 Types of Attachments Available

14 different types of attachments making an almost infinite number of applications possible.



\* ROTUS Attachment is exchangeable for Emax EVOLUTION. System Chart Emax EVOLUTION Series / ROTUS Series (P.11-12)



ROTUS Series System Chart

Code No.

Model

Attachment

1147

IR-310

Ring Type

1005

IH-300

Lever Type

2811

IG-400

Straight Type

1016

HG-200

6 mm Torque Type

1017

BMH-300

Long Type

1012

MFC-300S

90° Mini Angle Type

1013

MFC-300M

90° Mini Angle Type (Very Small Head)

1006

IC-300

90° Angle Type

1014

KC-300

50° Angle Type

LUSTER

1302

LS-100

Pistol-Type Polisher (Reciprocating motion)

MINI-LUSTER

1307

ML-8

Pencil-Type Reciprocating Polishing Finisher (Reciprocating motion)

SWING-LUSTER

1380

SLS-16

Pencil-Type Reciprocating Polishing Finisher (Right to left motion)

Hammer Action Type

8060

HA-500

Engraving and Ornament Processing Work Hammer

FINE BELT SANDER

1146

KBS-101

Small-sized Handy Belt Sander

Speed Reducer·Extension Joint

Extension Joint

1015

CN-01

1/4 Speed Reducer

1009

RG-01

1/15 Speed Reducer

1010

RG-02

May be connected between the motor and the attachment when required increased torque.

Motor

Air Motor with Hose 360° Twist-Free Joint Mechanism

1004

IM-301

3,000~30,000 min<sup>-1</sup>

Air Driven

Air Line Kit

4507

AL-H1207F

Foot Controller

1064

AFC-45

This air line kit is designed for use with the AFC-45 foot controller, Code No.1064.

Details of Maximum Allowable speed on intermittent use or continuous use P.41~44

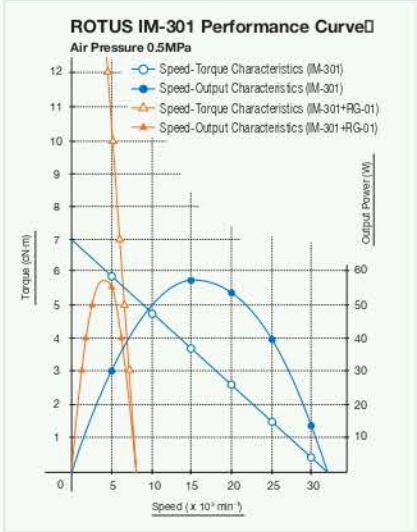
ROTUS SERIES

PRECISION HIGH TORQUE AIR MOTOR · STANDARD SET

ROTUS Air Motor · Standard Set

3,000~30,000 min<sup>-1</sup>

- To achieve high torque, ROTUS air motor is assembled with micron precision between the vanes and the internal surface of the cylinder using NAKANISHI's proprietary techniques.
- This high performance air motor with minimal power loss from load fluctuation has excellent performance in its grinding stability. Moreover, the motor with minimal air consumption runs quietly and the energy-saving mechanism makes it possible to operate with a 0.75KW (1hp) air compressor.
- Lightweight and compact design. 130 g (w/o hose)
- 14 types of attachments for all types of applications.
- ON/OFF, FWD./REV. Rotation Direction and Motor Speed can be controlled only by the Ring Switch.
  - Foot controller is available (P.44) : used as an ON/OFF switch as well as a variable speed control.
- Air cooling system generates no heat for continuous operation.
- By attaching the silencer to the end of the exhaust air tubing, the motor is operated extremely quiet.
- Twist-Free Joint mechanism is installed in IM-301 to solve the problem of hose twisting.



ROTUS Air Motor (with Twist-Free Joint Mechanism)

2,000~30,000 min<sup>-1</sup>

Code No.	1004	Model	IM-301
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- Speed : Max. 30,000 min<sup>-1</sup> (0.4 MPa)
- Proper Air Pressure : 0.3~0.45 MPa
- Air Consumption : 75 NL/min
- Output Power : 46 W
- Max. Torque : 6.6 cN·m (0.4 MPa)
- Weight : 130 g (w/o hose)

Standard Accessories

- Hose (K-206) : 2 m
- Silencer (K-209)
- Pin Spanner (K-233) : 1 pc.



<Air Motor with 360° Twist-Free Joint Mechanism>

- Adopted Twist-Free Joint mechanism between the motor and the hose has solved the problem of hose twisting.



ROTUS Standard Set



30,000 min<sup>-1</sup> (Speed)

The ROTUS System is a hand-held grinder with an energy saving air motor. Since it is an air driven system, there is virtually no heat generation resulting in excellent durability. Select from a variety of attachments depending on the application.

The Ring type IR-310 is a standard attachment for ROTUS standard set ROTUS-IR.

Code No.	1163	Model	ROTUS-IR
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- Standard Equipment
- Air Grinder (IR-310+IM-301) : 1 pc.
  - Collet ø3.0mm (CHH-3.0), ø2.35 mm (CHH-2.35) : 1 pc. each
  - Air Line Kit (AL-H1207F) : 1 pc.
  - Foot Controller (AFC-45) : 1 pc.
  - Accessories : Piping Hose 2m (K-275) : 1 pc., Lubricating Oil (K-211) : 1 pc., Spanner (7x5.1) : 1 pc., Pin Spanner (K-233) : 2 pcs., L Shaped Spanner (9) : 1 pc.

Specifications (IM-301 + IR-310)

Weight	Max. Torque	Speed	Proper Air Pressure	Air Consumption	Output Power	Collet
222g(*)	6.6 cN·m (0.4 MPa)	30,000 min <sup>-1</sup>	0.3~0.45 MPa	75 NL/min	46 W (Motor)	ø0.3~ø3.175 mm CHH Group (P.55)

\* Weight (w/o Hose)



Ring Type Attachment

Code No. 1147 Model IR-310



- 40,000 min<sup>-1</sup> Max.
- High precision and high reliability is realized by micron precision.
  - Slim, lightweight design allows for fine finishing of delicate parts.
  - One-touch ring type bur replacement.
- Weight : 92 g
- Standard Size Collet
- ø3.0 mm (CHH-3.0) ø2.35 mm (CHH-2.35)
- Optional Collets : CHH group are shown in page (P.55)
- Standard Accessories
- Spanner (7x5.1) : 1 pc.
  - Pin Spanner (K-233) : 1 pc.
  - L Shaped Spanner (9) : 1 pc.

Straight Type Attachment

Code No. 2811 Model IG-400



- 40,000 min<sup>-1</sup> Max.
- Lightweight ergonomically designed with minimal vibration for extended use.
  - NK Micron Collet permits strong retention and high precision performance.
- Weight : 55 g
- Standard Size Collet
- ø3.0 mm (NKM6-3.0)
- Optional Collets : NKM6 group are shown in page (P.56)
- Standard Accessories
- Collet Nut (CHN-6) • Bar Wrench (PCR-30) : 1 pc.
  - Spanner (9 x 9), (15 x 17) : 1 pc. each

Long Type Attachment

Code No. 1017 Model BMH-300

Tip diameter ø13 mm (For Deep Hole Grinding)



- 35,000 min<sup>-1</sup> Max.
- This unique slim body makes it ideal for cutting and grinding the bottom surface of deep ribs or holes.
  - Collet is tightened by a spanner.
- Weight : 156 g
- Standard Size Collet
- ø3.0 mm (CHM-3.0)
- Optional Collets : CHM group are shown in page (P.56)
- Standard Accessories
- Spanner (7 x 5.1), (6 x 4.5) : 1 pc. each
  - Pin Spanner (K-233) : 1 pc.

Lever Type Attachment

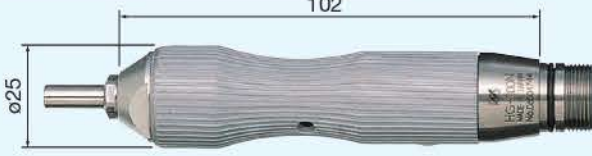
Code No. 1005 Model IH-300



- 40,000 min<sup>-1</sup> Max.
- High precision and high reliability is realized by micron precision.
  - Slim, lightweight design allows for fine finishing of delicate parts.
  - Lever Type one touch bur release.
- Weight : 62 g
- Standard Size Collet
- ø3.0 mm (CHH-3.0) ø2.35 mm (CHH-2.35)
- Optional Collets : CHH group are shown in page (P.55)
- Standard Accessories
- Spanner (7x5.1) : 1 pc.
  - Pin Spanner (K-233) : 1 pc.

6 mm Torque Type Attachment

Code No. 1016 Model HG-200



- 30,000 min<sup>-1</sup> Max.
- Please use it with Speed Reducer.
- Permits the use of ø6.0 mm shank burs.
  - The resistance produced by cutting and grinding is absorbed by a special rubber grip to eliminate slipping.
  - Collet is tightened by a spanner.
- Weight : 210 g
- Standard Size Collet
- ø6.0 mm (CHG-6.0)
- Optional Collets : CHG group are shown in page (P.55)
- Standard Accessories
- Spanner (10 x 10) : 1 pc.
  - Bar Wrench (K-212) : 1 pc.
  - Pin Spanner (K-233) : 1 pc.

90° Mini Angle Type Attachment

Code No. 1013 Model MFC-300M

For Chamfering Deep Hole, Bur Only ø1.6 mm



- 15,000 min<sup>-1</sup> Max.
- Please use it with Speed Reducer.
- The world's smallest angle type attachment.
  - Suitable for chamfering and deburring the inside of the slit pipe.
- Minimum Inner Diameter : ø13 mm
- Holding tool width : 7.2 mm
- Weight : 47 g
- Speed Reduction Ratio : 10/11
- Standard Size Collet
- ø1.6 mm (K-253) P.56
- Standard Accessories
- Chuck Wrench (K-232) : 1 pc.
  - Pin Spanner (K-233) : 1 pc.

SWING-LUSTER Attachment

Code No. 1380 Model SLS-16

Right to Left motion



- 30,000 min<sup>-1</sup> Max.
- High speed grinding and polishing operations can be performed while maintaining the fine and delicate feeling of hand polishing.
  - Lightweight pencil type design makes it easy to work in tight areas.
  - Easily adjustable stroke length allows efficient work on minute areas or large sections.
- Weight : 127 g
- Stroke Range (variable) : 0~1.6 mm
- Reciprocating Stroke (variable) : 0~7,650 times/min.
- Max. tool shank diameter ø5.0 mm, Screw clamp type.
- Standard Accessories
- Spanner (16 x 18), (20 x 24) : 1 pc. each
  - Allen Wrench (1.5 mm) : 1 pc.
  - Standard Accessories : 1 set
- Standard Accessories
- | Code No. | Description                                  | Package    |
|----------|--|------------|
| 60737    | Ceramic Fiber Grindstone 1 x 6 x 50 #1200    | 1 pc. each |
| 62814    | Electroplated Diamond File 1.2 x 4 x 50 #100 |            |
| 62510    | Ceramic Fiber Grindstone Holder              |            |

90° Mini Angle Type Attachment

Code No. 1012 Model MFC-300S

For Chamfering Deep Hole, Bur Only ø1.6 mm



- 15,000 min<sup>-1</sup> Max.
- Please use it with Speed Reducer.
- Suitable for chamfering and deburring the inside of the slit pipe.
  - Minimum Inner Diameter : ø20 mm
- Holding tool width : 11.9 mm
- Weight : 50 g
- Speed Reduction Ratio : 10/11
- Standard Size Collet
- ø1.6 mm (K-252) P.56
- Standard Accessories
- Chuck Wrench (K-232) : 1 pc.
  - Pin Spanner (K-233) : 1 pc.

Hammer Attachment

Code No. 8060 Model HA-500



- 16,000 min<sup>-1</sup> Max.
- Please use it with Speed Reducer.
- A wide variety of patterns can be produced by varying the spring pressure and hammer speed.
  - Light weight, pencil type grip makes the handpiece very comfortable to hold and easy to use.
  - Adjustable spring pressure.
  - Self lubricating hammer mechanism ensure excellent durability.
  - Stroke Range : 0.4 mm
  - Stroke Times : 25~4,000 times/min.
  - Stroke Spring Pressure : 4.4~7.1 N (Ring Adjustment Type)
- Weight : 95 g
- Standard Accessories
- Spanner (7 x 5.5) : 1 pc.
  - Bar Wrench (K-212) : 1 pc.
  - Oil and Oil offer machine • Hammer Bit (For replacement) : 2 pcs.
- Hammer Bit to be machined to required shapes (SUS-420, heat treated, approx. HRC50)
- | Code No. | Package     |
|----------|-------------|
| 65301    | 3 pcs./pack |

ROTUS Air Motor (with Chip Air Mechanism)

Code No. 1003 Model IM-300



- Speed : 3,000~30,000 min<sup>-1</sup>
- Proper Air Pressure : 0.3~0.45 MPa
- Air Consumption : 75 NL/min
- Output Power : 46 W
- Max. Torque : 6.6 cN.m (0.4MPa)
- Weight : 130 g (w/o hose)
- Standard Accessories
- Hose (K-207) : 2 m
  - Silencer (K-209) : 1 pc.
  - Pin Spanner (K-233) : 1 pc.

<Air Motor with Chip Air Mechanism>

- Air motor IM-300 with Chip Air Mechanism blows away the cutting dust with clean air coming through the top end of the attachment. The hand-held cutting work remains cool by the chip air allowing comfort through out the working process.



This is only with the attachment IH-300.



90° Angle Attachment

Code No. 1006 Model IC-300



30,000 min<sup>-1</sup> Max.  
Please use it with Speed Reducer.

- Suitable for polishing a flat surface at speed with a grinding disk pad.
- Capable of applications for rough cutting to mirror finishing.
- Speed Reduction Ratio : 3/4



Standard Accessories

Code No.	Description	Package
64101	Rubber Pad (Small) O.D. ø10 mm	1 pc./pack
64102	Rubber Pad (Med) O.D. ø20 mm	
64103	Rubber Pad (Large) O.D. ø30 mm	
64133	Sand Paper Disk for small pad ø11 #180	5 pcs./pack
64137	Sand Paper Disk for small pad ø11 #600	
64153	Sand Paper Disk for med. pad ø21 #180	
64157	Sand Paper Disk for med. pad ø21 #600	
64173	Sand Paper Disk for large pad ø31 #180	
64177	Sand Paper Disk for large pad ø31 #600	

50° Angle Attachment

Code No. 1014 Model KC-300



30,000 min<sup>-1</sup> Max.  
Please use it with Speed Reducer.

- Perfect for finishing bottom surfaces and other tight, hard to reach areas.
- Suitable for polishing a flat surface at speed with a grinding disk pad.
- Speed Reduction Ratio : 3/4

Use the motor in reverse rotation for clockwise rotation.



Standard Accessories

Code No.	Description	Package
64101	Rubber Pad (Small) O.D. ø10 mm	1 pc./pack
64102	Rubber Pad (Med) O.D. ø20 mm	
64103	Rubber Pad (Large) O.D. ø30 mm	
64133	Sand Paper Disk for small pad ø11 #180	5 pcs./pack
64137	Sand Paper Disk for small pad ø11 #600	
64153	Sand Paper Disk for med. pad ø21 #180	
64157	Sand Paper Disk for med. pad ø21 #600	
64173	Sand Paper Disk for large pad ø31 #180	
64177	Sand Paper Disk for large pad ø31 #600	

MINI-LUSTER Attachment (Pencil-Type Reciprocating Polishing Finisher)

Code No. 1307 Model ML-8 Stroke (0.8 mm)

Reciprocating motion



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

- Due to pencil type grip, it is most suitable for polishing narrow grooves, details, etc.
- Stroke Range (Fixed) : 0.8 mm
- Reciprocating Stroke (Variable) : 0~6,380 times/min.



Standard Accessories

Code No.	Description	Package
62751	Spring Holder	1 pc./pack
62510	Ceramic Fiber Grindstone Holder	
62614	Electroplated Diamond File 1.2 x 4 x 50 #100	
60737	Ceramic Fiber Grindstone 1 x 6 x 50 #1200	

LUSTER Attachment (Pistol-Type Polisher)

Code No. 1302 Model LS-100

Reciprocating motion



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

- High performance grinding & polishing with high power and reciprocating stroke.
- Well-balanced, rubber-grip absorbs vibration.
- Stroke Range : 0~6 mm (variable)
- Reciprocating Stroke (variable) : 0~6,300 times/min.



Standard Accessories

Code No.	Description	Package
62502	Stone Holder	1 pc./pack
62505	Stone Holder	
62751	Spring Holder	
62525	Rectangular Pad	
62526	Rod for Rectangular Pad	10 pcs./pack
62527	Angle Rod	
62552	Sand Paper Tip #120	
62555	Sand Paper Tip #320	
62557	Sand Paper Tip #600	
62559	Sand Paper Tip #1000	

FINE BELT SANDER Attachment

Code No. 1146 Model KBS-101



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

- Very high belt speed, ideal for applications from deburring to finishing.
- The angle of the belt section is fully adjustable.



Standard Accessories

Code No.	Description	Package
64902	Abrasive Belt Width 4mm #120	2 pcs. each
64904	Abrasive Belt Width 4mm #240	
64906	Abrasive Belt Width 4mm #400	
64912	Abrasive Belt Width 6mm #120	
64914	Abrasive Belt Width 6mm #240	
64916	Abrasive Belt Width 6mm #400	
64922	Abrasive Belt Width 8mm #120	
64924	Abrasive Belt Width 8mm #240	
64926	Abrasive Belt Width 8mm #400	

1/4 Speed Reducer

Code No. 1009 Model RG-01



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

- Mounted between an attachment and a motor.
- The speed is reduced to 1/4 but the torque is multiplied by 4 times.
- Suitable for high torque grinding process or drilling.

Weight : 68 g

Standard Accessories

- Pin Spanner (K-233) : 1 pc.

1/15 Speed Reducer

Code No. 1010 Model RG-02



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

- Mounted between an attachment and a motor.
- The speed is reduced to 1/15 but the torque is multiplied by 15 times.
- Suitable for high torque grinding process or drilling.

Weight : 93 g

Standard Accessories

- Pin Spanner (K-233) : 1 pc.

Air Line Kit

Code No. 4507 Model AL-H1207F



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

This air line kit is designed for use with the AFC-45 foot controller, Code No.1064.

- Ensures a smooth operation and long life by supplying stable, conditioned air to the air motor.
- Three functions : air filter, regulator, mist lubricator can also be used to adjust motor speed.

Weight : 2.2 kg Filter Mesh : 5 µm

Standard Accessories

- Air Pressure Gauge • Air Regulator • Air Filter • Lubricator
- Air Control Valve (CV-05) • Piping Hose (K-275) • Lubricating Oil (K-211)

Foot Controller

Code No. 1064 Model AFC-45



This foot controller is necessary for use with the AL-H1207F air line kit.

- Designed to depress from any direction.
- Fine adjustment of speed control is possible.

Extension Joint

Code No. 1015 Model CN-01



35,000 min<sup>-1</sup> Max.

- Speed Ratio 1 : 1
- This is a joint to be connected between a motor and an attachment to extend the total length of the attachment.

Weight : 83 g

Standard Accessories

- Pin Spanner (K-233) : 1 pc.







## NAKANISHI's EXCLUSIVE TOOLS

## Exclusive Tools of Electromotive Polisher "LUSTER", "MINI-LUSTER", "SWING-LUSTER"



LUSTER

Best for finishing large open work areas.

## SHANK 3.0

## 1 pc./pack Electroplated Diamond File

Flat taper 0.3	Thickness 1.4 15 70	Grit	# 200 62301 # 400 62302 # 600 62303	Half-round 2 15	45 90	Grit	# 150 62313
Flat taper 0.3	Thickness 1.4 15 72	Grit	# 200 62305 # 400 62306 # 600 62307	Round 3	45 90	Grit	# 150 62315
Flat 1.7 4.2	45 90	Grit	# 150 62311	Angular 2.5 12.5	45 90	Grit	# 150 62317

## 1 pc./pack Diamond File Flat Type

\* Use with stone holder No.62502.

90 60 20 8	Grit	# 150 62351 # 200 62352 # 400 62353	90 60 20 8	Grit	# 150 62355 # 200 62356 # 400 62357
90 40 20 6	Grit	# 150 62361 # 200 62362 # 400 62363	90 40 20 6	Grit	# 150 62361 # 200 62362 # 400 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 70mm	180mm 90mm	Total length The length of file	140mm 70mm	180mm 90mm
1.3(1.5) (Flat)	Standard	Fine	3.3(4.1) (Triangular)	Standard	Fine
5.1(6) (Round)	57301	57311	5.1(6) (Half-round)	57304	57314
3.3(3.5) (Angular)	57302	57312		57305	57315
2.5(2.7) (Angular)	57303	57313			57325

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

## SHANK 3.0

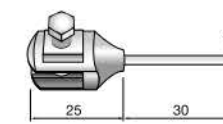
## 3 pcs./pack Rasps for plastics and wood working (Flat, Round, Angular, Triangular, Half-Round)

Total length 140 mm (The length of file is 69 mm)	2.2 5.7	(Flat)	3.8 5.7	(Triangular)	2.3 5.7	(Half-round)
		57401		57404		57405
		57402				
		57403				

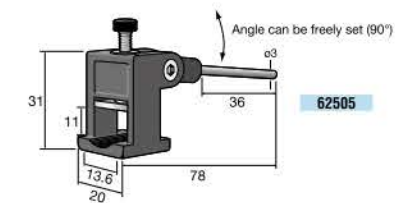
5 files-pack set • Rasps set for plastics and wood working (No.57401~No.57405 : 1pc. each) ..... 57410

## NAKANISHI's EXCLUSIVE TOOLS

## 1 pc./pack Stone Holder

Maximum clamping thickness  
4.5 x Width 11 mm

62502

Maximum clamping thickness  
11 x Width 13.5 mm

62505

## 2 pcs./pack

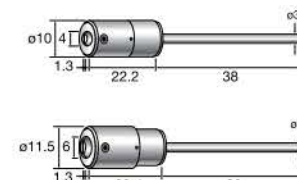
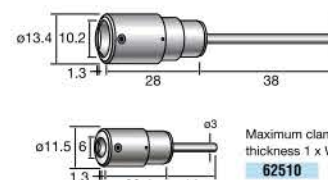
## Ceramic Fiber Grindstone (Total Length 50 mm)

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

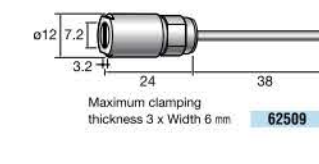
Grit	Color	W = 4 mm	W = 6 mm	W = 10 mm	Grit	Color	W = 4 mm	W = 6 mm	W = 10 mm	Grit	Color	W = 4 mm	W = 6 mm	W = 10 mm
# 180	Ivory	60701	60711	62961	# 180	Ivory	60721	60731	62961	# 180	Ivory	60701	60711	62961
# 300	Brown	60702	60712	62962	# 300	Brown	60722	60732	62962	# 300	Red	63101	63102	63103
# 400	Orange	60703	60713	62963	# 400	Orange	60723	60733	62963	# 400	Orange	63101	63102	63103
# 600	Black	60704	60714	62964	# 600	Black	60724	60734	62964	# 600	Black	63101	63102	63103
# 800	Blue	60705	60715	62965	# 800	Blue	60725	60735	62965	# 800	Blue	63101	63102	63103
# 1,000	White	60706	60716	62966	# 1,000	White	60726	60736	62966	# 1,000	White	63101	63102	63103
# 1,200	Pink	60707	60717	62967	# 1,200	Pink	60727	60737	62967	# 1,200	Pink	63101	63102	63103

## 1 pc./pack

## Ceramic Fiber Grindstone Holder - Grindstone Holder

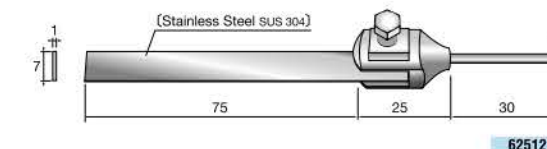
Maximum clamping thickness 1 x Width 4 mm  
62506Maximum clamping thickness 1 x Width 10 mm  
62508

## Grindstone Holder

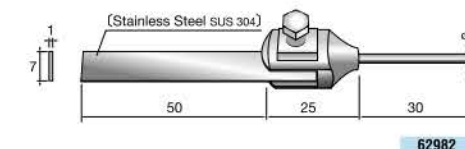
Maximum clamping thickness 3 x Width 6 mm  
62509

## 1 pc./pack

## Flat Holder • Tip for use with abrasive sheets.



62512

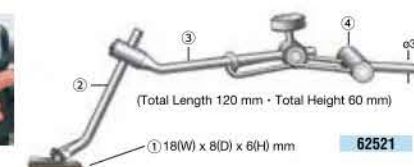


62982

## 1 pc./pack

## Angular Pad Holder

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



62521

62525  
62526  
62527  
62751

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

## 100 pcs./pack Sand Paper Tip



Grit	
# 120	62552
# 320	62555
# 600	62557

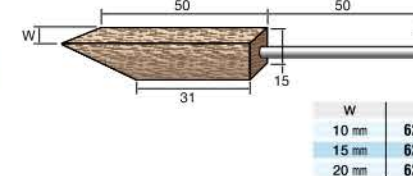
Adhesive Back

Grit	
# 1,000	62559
# 1,500	62560

Adhesive Back

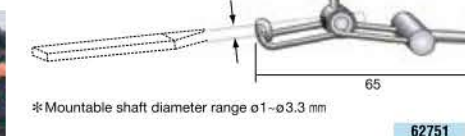
## 3 pcs./pack

## Wood Tip Holder

62621  
62622  
62623

## 1 pc./pack

## Spring Holder

\* Mountable shaft diameter range 1-3.3 mm  
62751



## NAKANISHI's EXCLUSIVE TOOLS

SHANK  $\phi 3.0$ 

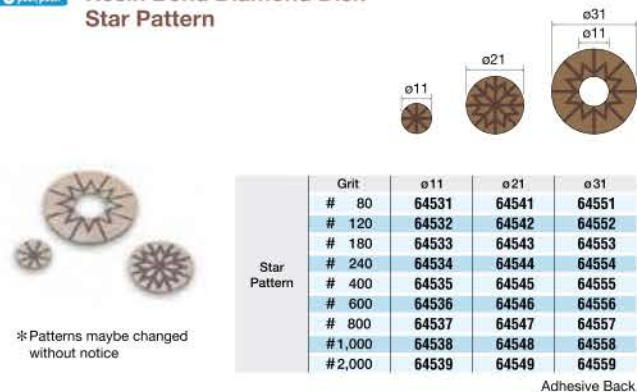
## 1 pc./pack Electroplated Diamond File

Flat taper		t	Grit		Angular			
		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			Round			
		0.5 mm	# 200	62805			# 100	62840
		0.4 mm	# 400	62806			# 150	62841
		0.35 mm	# 600	62807			# 200	62842
Flat					Round			
		# 150	62811	# 150			62845	
		# 200	62812	# 200			62846	
		# 400	62813	# 400			62847	
Flat (Single side electroplating)					Round			
		# 100	62814	# 150			62851	
Flat					Round taper			
		# 150	62815	# 150			62855	
		# 200	62816	# 200			62856	
		# 400	62817	# 400			62857	
※62815 is thickness 1.4mm.								
Flat (Single side electroplating)					Half-round			
		# 150	62821	# 150			62865	
		# 200	62822	# 200			62866	
		# 400	62823	# 400			62867	
Flat (Single side electroplating)					Half-round			
		# 150	62825	# 150			62871	
		# 200	62826	# 200			62872	
		# 400	62827	# 400			62873	
Triangular					Triangular			
		# 150	62881	# 150			62881	
		# 200	62882	# 200			62882	
		# 400	62883	# 400			62883	



## NAKANISHI's EXCLUSIVE TOOLS

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



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

Diamond Film (Diamond)	Grit	Color	ø11	ø21	ø31
# 400	Ivory	64601	64606	64611	
# 800	Ivory	64602	64607	64612	
# 1,500	Ivory	64603	64608	64613	
# 3,000	Ivory	64604	64609	64614	

Adhesive Back

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

Arandom Film (WA)	Grit	Color	ø11	ø21	ø31
# 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

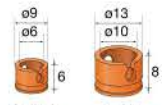
## SHANK ø3.0

## Lap Ring



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

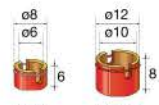
## 10 pcs./pack Replacement Plastic Ring



64713 64717

\*Do not use the same ring for different abrasive compound grits.

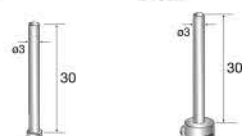
## 5 pcs./pack Replacement Brass Ring



64723 64727

## 1 pc./pack Replacement Holder

For internal diameter ø6 mm For internal diameter ø10 mm



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.



MINI ANGLE TYPE Attachment (Very Small Head)

MINI ANGLE TYPE Attachment

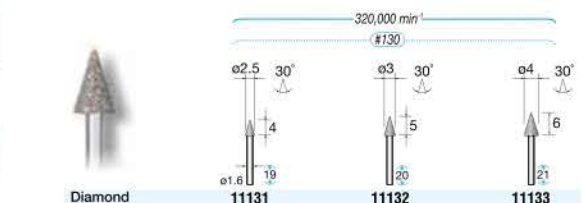
## SHANK ø1.6

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

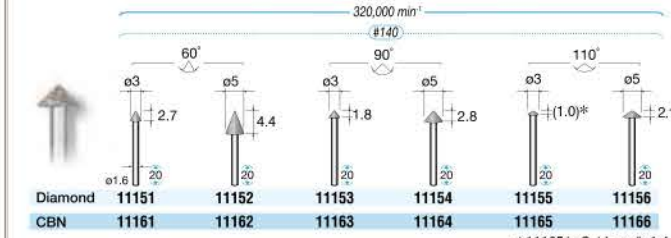


## SHANK ø1.6

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



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



\*11165 is Cut Length 1.4mm.

## NAKANISHI's EXCLUSIVE TOOLS

## Exclusive Tools of "IMPULSE"



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

90° ANGLE IMPULSE  
· NA90-23060° ANGLE IMPULSE  
· NA45-230

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

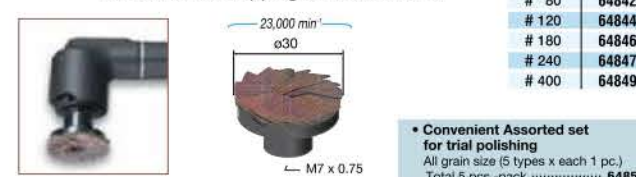


## 12 pcs./pack Cup Wheel



## 5 pcs./pack Polishing Sander

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



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.



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

## Exclusive Tools of "FINE BELT SANDER"



FINE BELT SANDER Attachment

## 30 pcs./pack Abrasive Belts

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

For Grinding or Polishing of Metals (Length 300 mm)			
Grit	W = 4 mm	W = 6 mm	W = 8 mm
# 80	64901	64911	64921
# 120	64902	64912	64922
# 180	64903	64913	64923
# 240	64904	64914	64924
# 320	64905	64915	64925
# 400	64906	64916	64926
# 600	—	—	64927
# 800	—	—	64928

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

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

For Woodwork (Length 300 mm)	
Grit	8 mm Width
# 80	64941
# 120	64942
# 240	64943

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



NAKANISHI's EXCLUSIVE TOOLS

3 pcs./pack Diamond Belt

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



Hard Type (Length 300 mm)

Grit	8 mm Width
# 80	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	8 mm Width	Grit	8 mm 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 Zirconium Belt

- Best for polishing aluminum, stainless steel, brass



(Length 300 mm)

Grit	8 mm Width
# 80	64971
# 100	64972
# 120	64973

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

Electrically Driven

Air Driven

General Parts

Exclusive Tools

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Product Code