

ROTUS SERIES

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■ ROTUS Attachment

Product	Description	CAT.No.	Model	Specification
	RING TYPE ATTACHMENT	1147	IR-310	<ul style="list-style-type: none"> ● Slim and lightweight for micro grinding process. ● Ring Type one touch bur release. ● Collet Chuck : $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35)
	LEVER TYPE ATTACHMENT	1005	IH-300	<ul style="list-style-type: none"> ● Slim and lightweight for micro grinding process. ● Lever Type one touch bur release. ● Collet Chuck : $\phi 3.0$ mm (CHH-3.0), $\phi 2.35$ mm (CHH-2.35)
	6 mm TORQUE TYPE ATTACHMENT	1016	HG-200	<ul style="list-style-type: none"> ● Permits the use of $\phi 6.0$ mm shank burs. ● Chuck is tightened by a spanner. ● Collet Chuck : $\phi 6.0$ mm (CHG-6.0) ● 27,000 min⁻¹ Max. (*1) *Please use it together with Speed Reducer.
	STRAIGHT ATTACHMENT for Deep Hole Grinding $\phi 13$ mm	1017	BMH-300	<ul style="list-style-type: none"> ● Suitable for polishing the narrow groove, details and etc. ● Chuck is tightened by a spanner. ● Collet Chuck : $\phi 3.0$ mm (CHM-3.0)
	90° MINI ANGLE ATTACHMENT for Chamfering Deep Hole	1012	MFC-300S	<ul style="list-style-type: none"> ● Suitable for chamfering and deburring the inside of the slit pipe. ● Collet Chuck : $\phi 1.6$ mm (K-252) ● 15,000 min⁻¹ Max. (*1) *Please use it together with Speed Reducer.
	90° MINI ANGLE ATTACHMENT for Chamfering Deep Hole (Very Small Head)	1013	MFC-300M	<ul style="list-style-type: none"> ● Suitable for chamfering and deburring the inside of the slit pipe. ● Collet Chuck : $\phi 1.6$ mm (K-253) ● 15,000 min⁻¹ Max. (*1) *Please use it together with Speed Reducer.
	90° ANGLE ATTACHMENT	1006	IC-300	<ul style="list-style-type: none"> ● Suitable for polishing a flat surface at speed with a grinding disk pad. ● Collet Chuck : $\phi 3.0$ mm (CHC-3.0) ● 20,000 min⁻¹ Max. (*2) *Please use it together with Speed Reducer.
	45° ANGLE ATTACHMENT	1014	KC-300	<ul style="list-style-type: none"> ● Ideal for the work at 45° angle, especially corners and deep concaves. ● Collet Chuck : $\phi 3.0$ mm (CHC-3.0) ● 20,000 min⁻¹ Max. (*2) *Please use it together with Speed Reducer.
	LUSTER ATTACHMENT (Pistol-Type Polisher) (Reciprocating motion)	1302	LS-100	<ul style="list-style-type: none"> ● High performance grinding & polishing with high power and reciprocating stroke. ● Stroke Range : 0-6 mm ● Reciprocating Stroke (Variable) : 0-7,600 times/min.
	MINI-LUSTER ATTACHMENT (Pencil-Type Polisher) (Reciprocating motion)	1307	ML-8 Stroke (0.8 mm)	<ul style="list-style-type: none"> ● Due to pencil type grip, it is the most suitable for polishing narrow groove, details, etc. ● Reciprocating Stroke (Variable) : 0-7,600 times/min.
	SWING-LUSTER ATTACHMENT (Pencil-Type Polisher) (Right to Left motion)	1380	SLS-16	<ul style="list-style-type: none"> ● Easily adjustable stroke length allows efficient work on minute areas or large sections. ● Reciprocating Stroke : 0-7,600 times/min ● Stroke Range (Variable) : 0-1.6 mm
	HAMMER ATTACHMENT	8060	HA-500	<ul style="list-style-type: none"> ● Various patterns can be processed with hammer action. ● Stroke Times : 25-5,000 times/min. ● Stroke Spring Pressure : 4.4-7.1 N (Ring Adjustment Type) ● 20,000 min⁻¹ Max. (*1) 16,000 min⁻¹ Max. (*2) *Please use it together with Speed Reducer.
	FINE BELT SANDER ATTACHMENT	1146	KBS-101	<ul style="list-style-type: none"> ● Exchanging the belt is simply done by lever release. ● Belt speed : 0-705 m/min. ● Belt Width : 8 mm, 6 mm, 4 mm
	1/4 SPEED REDUCER	1009	RG-01	<ul style="list-style-type: none"> ● Connected to the middle between attachments and motors. ● The speed is reduced to 1/4 but the torque is multiplied by 4 times. ● Suitable for high torque grinding process or drilling.
	1/15 SPEED REDUCER	1010	RG-02	<ul style="list-style-type: none"> ● Connected to the middle between attachments and motors. ● The speed is reduced to 1/15 but the torque is multiplied by 15 times. ● Suitable for high torque grinding process or drilling.
	EXTENSION JOINT	1015	CN-01	<ul style="list-style-type: none"> ● Speed 1 : 1 ● This is a joint to be connected between a motor and an attachment to extend the total length of the attachment.

* ROTUS Attachment is exchangeable for ELECTER E-max.

*1: Maximum Allowable Speed, continuous use may change depending on the material being cut and other application variables.

*2: Maximum Allowable Speed, intermittent use.

*Order by catalogue number. ● Specifications may be changed without notice.

Nakanishi's Industrial Brand Name and Logo have changed from **NSK** to **NAKANISHI**

NAKANISHI INC. www.nakanishi-inc.com

Headquarters | 700 Shinohinata, Kurama-shi, Tochigi-shi 322-8666, Japan
TEL : +81(0)289-64-3380 FAX : +81(0)289-62-5636

Tokyo Office | MY Building, 1-13-3, Ueno, Taito-ku, Tokyo 110-0005, Japan
TEL : +81(0)3-3835-2890 FAX : +81(0)3-3835-4332



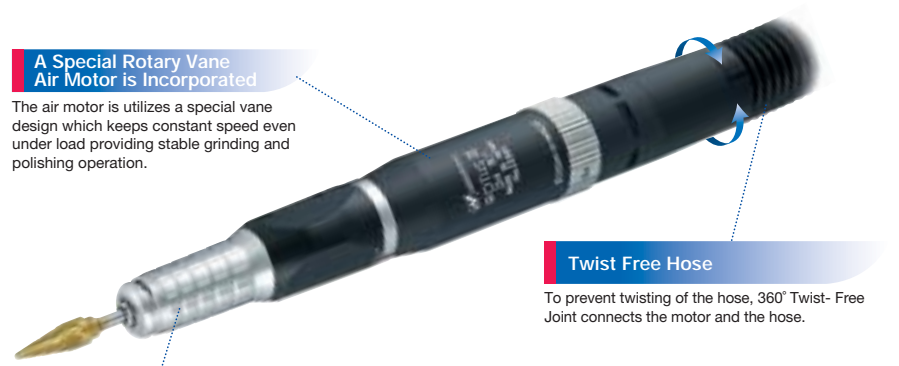
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ULTRA-PRECISION HIGH-TORQUE AIR GRINDER

ROTUS

Interchangeability with a variety of attachments ideal for any applications.



A Special Rotary Vane Air Motor is Incorporated

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

Twist Free Hose

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

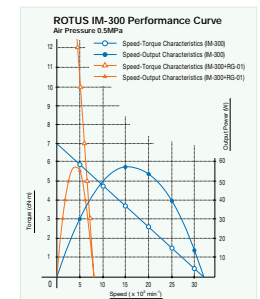
16 Types of Attachments for All Types of Applications

Capable of infinite applications with 13 different handpieces and 3 types of intermediate attachments.



ROTUS Series Features

- 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 (1 hp) air compressor.
- Lightweight and compact design. 222 g (w/o hose)
- 16 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 : 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.



Specifications

Speed : Max. 30,000min⁻¹ (0.4MPa)
Proper Air Pressure : 0.3-0.45MPa
Air Consumption : 75NL/min
Max. Torque : 6.6 cN·m (0.4MPa)
Output Power : 46W

ROTUS SERIES

ROTUS AIR MOTOR (with Twist-Free Joint Mechanism)

CAT. No.	1004	Model	IM-301
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3,000~30,000 min⁻¹

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

- Adapted Twist-Free Joint mechanism between the motor and the hose solves the problem of hose twisting.

◆ Weight : 130 g

Standard Accessories

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

ROTUS AIR MOTOR (with Chip Air Mechanism)

CAT. No.	1003	Model	IM-300
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3,000~30,000 min⁻¹

<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.**

◆ Weight : 130 g

Standard Accessories

- Hose (K-207) : 2 m • Silencer (K-209) • Pin Spanner (K-233) : 1 pc.

AIR LINE KIT

CAT. No.	1545	Model	AL-0306
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- 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 : 3.35 kg ◆ Filter Mesh : 5 μm

Standard Accessories

- Air Pressure Gauge • Air Regulator • Air Filter • Lubricator • Air Control Valve (CV-05) • Piping Hose (K-260) • Bracket • Lubricating Oil (K-211)

■ Set-Up Drawing

- Attachment • Air Motor • Air Line Kit AL-0306 • Compressor

◆ Use Air Line Kit AL-0306 or air supply 3 pieces set.

SILENCER

CAT. No.	1060	Model	K-209
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- By attaching the silencer at the end of exhaust air tubing, the operation noise is extremely reduced.

FOOT CONTROL

CAT. No.	1064	Model	AFC-45
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- Designed to depress from any direction.
- Fine adjustment of speed control is possible.

■ Collet Chuck (for IR-310) CHH-□□

Product	CAT. No.	Inside Diameter : ød (Model)
	91692	ø2.35 (CHH-2.35)
	90630	ø3.0 (CHH-3.0)
	90693	ø3.175 (CHH-3.175)
Optional		ø0.3~ø0.7 in 0.1 mm increments
		ø0.8~ø2.9 in 0.1 mm increments

RING TYPE ATTACHMENT

CAT. No.	1147	Model	IR-310
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- 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 Chuck

- ø3.0 mm (CHH-3.0) ø2.35 mm (CHH-2.35)

Standard Accessories

- Spanner (7x5.1) : 1 pc. • Pin Spanner (K-233) : 1 pc.

LUSTER ATTACHMENT (Pistol-Type Polisher)

CAT. No.	1302	Model	LS-100
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Reciprocating motion

- High performance grinding & polishing with high power and reciprocating stroke.
- Well-balanced, rubber-grip absorbs vibration.
- Stroke Range : 0~6 mm
- Reciprocating Stroke (variable) : 0~7,600 times/min.

◆ Weight : 680 g

◆ Mountable tool : Max. shaft diameter ø6.4 mm, Screw clamp type.

Standard Accessories

- Allen Wrench (2 mm) : 1 pc. • Lubricating Oil • Lubrication Nozzle for LUSTER • Standard attachment's tools set

ROTUS STANDARD SET

CAT. No.	1148	Model	R301-IR
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30,000 min⁻¹

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 new ring type IR-310 is a standard attachment for ROTUS standard set R301-IR.**

Set contents

- Air Grinder (IM-301+IR-310) : 1 pc. • Collet Chuck ø3.0, ø2.35 mm
- Air Line Kit (AL-0306) : 1 pc. • Foot Control (AFC-45) : 1 pc.
- Accessories : Piping Hose : 2 m (K-260) : 1 pc., Lubricating Oil (K-211) : 1 pc.
- Pin Spanner (K-233) : 2 pc.

FINE BELT SANDER COMBINATION EXAMPLE

705 m/min (Belt speed)

Grinding, polishing and finishing of a die cast or a lost wax.

[1] Description	FINE BELT SANDER	CAT. No.	1146	Model	KBS-101
[2] Description	ROTUS Air Motor	CAT. No.	1004	Model	IM-301
[3] Description	Air Line Kit	CAT. No.	1545	Model	AL-0306
[4] Description	Foot Control	CAT. No.	1064	Model	AFC-45

MINI-LUSTER ATTACHMENT (Pencil-Type Polisher)

CAT. No.	1307	Model	ML-8	Stroke (0.8 mm)
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Reciprocating motion

- Due to pencil type grip, it is the most suitable for polishing narrow groove, details, etc.
- Reciprocating Stroke (Variable) : 0~7,600 times/min.

◆ Weight : 130 g

◆ Mountable tool : Max. shaft diameter ø3.2 mm, Screw clamp type

Standard Accessories

- Allen Wrench (1.5 mm) : 1 pc. • Standard attachment's tools set

FINE BELT SANDER ATTACHMENT

CAT. No.	1146	Model	KBS-101
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- Adjustable belt speed and angle.
- Exchanging the belt is simply done by lever release.
- Belt speed : 0~705 m/min.

◆ Weight : 350 g

◆ Belt Width : 8 mm, 6 mm, 4 mm

Standard Accessories

- Allen Wrench (3 mm) : 1 pc. • Standard attachment's tools set

LUSTER COMBINATION EXAMPLE

7,600 times/min (Reciprocating Stroke)

Grinding, polishing and finishing can done high efficiently by high-power air pressure polisher.

[1] Description	LUSTER	CAT. No.	1302	Model	LS-100
[2] Description	ROTUS Air Motor	CAT. No.	1004	Model	IM-301
[3] Description	Air Line Kit	CAT. No.	1545	Model	AL-0306
[4] Description	Foot Control	CAT. No.	1064	Model	AFC-45

MINI-LUSTER COMBINATION EXAMPLE

7,600 times/min (Reciprocating Stroke)

Combination example for grinding system with the pencil-type, air pressure precision polisher (0.8 mm stroke)

[1] Description	MINI-LUSTER	CAT. No.	1307	Model	ML-8
[2] Description	ROTUS Air Motor	CAT. No.	1004	Model	IM-301
[3] Description	Air Line Kit	CAT. No.	1545	Model	AL-0306
[4] Description	Foot Control	CAT. No.	1064	Model	AFC-45