

NEWS LETTER

ALFA MIRAGE CO., LTD.

Micro Grinder

Tips for Selecting Micro Grinder for Jeweler



Micro grinder is a hand-held power tool used for cutting, sanding, carving, polishing, and several other applications.

Selecting suitable Rotary tool for jewelry making is difficult because we have so many options. When purchasing one to fulfill your needs, you must first consider the kind of project you want to achieve with it. Here are some tips for selecting Micro Grinder and we would like to introduce Made in Japan Micro Grinders from our product line.

1.Torque

Torque is the strength of the force. If this is too weak, the rotation power gets weak when applying to hard materials such as metals.

It is recommended to use micro-grinder with high torque for safety reasons.

High-end models keep stable torque, even when grinding at low RPM.

Especially high torque is needed when drilling a hole in platinum and gold.

On the other hand, if you do not need such operations, you do not need to worry about it too much.

2.Rotational speed

RPM is important whatever points or bits you use.

So how much RPM do we need?

When you need the maximum RPM is for final polishing process(Mirror Finish).

The faster it is, the easier it is to shine.

It is said that about 15,000 - 25,000 RPM is enough, but it depends on personal preference.

3.Feedback Function

The feedback function automatically adjusts rotation speed when the motor is overloaded. The lower priced models, which do not have a good feedback function, will stop rotating when you press hard against them.

4.Speed Control Function

If the rotation speed cannot be changed freely and continuously, such as cutting hard or gently depending on the shape of the design, it will affect the quality of the finish.

Foot Controller

If you have foot controller, it is even more convenient. With a foot controller, you can freely adjust the rotation speed with your foot, just like stepping on the gas pedal of a car. It's very inefficient to take the trouble to stop working and adjust the rotation speed by hand to change the strength of the rotation speed.

Product Line-up: Made in Japan Micro Grinder

NAKANISHI EMAX EVOLUTION

You will find the Nakanishi NSK E-Max Evolution on the benches of goldsmiths all over the world. Nakanishi (NSK) makes the best quality micromotor with high quality and reliability and very popular.



NAKANISHI EMAX EVOLUTION

Ultra-precision brushless Micro-grinder from NAKANISHI, Japan. Tough torque brushless motor, flashing live load Indicator, auto-cruise control and fix speed function.

Item Code	303-025	303-024
Model	8080 / EV410-100	8225 / EV410-230
RPM	1000 - 40000	
Power	100V / 30W	230V / 30W
Weight	182 g (Hand piece)	2.3 kg (Control unit)
Accessories	Control unit (NE249) Micro Grinder (Ring type IR-310+ENK-410S) Collet chuck (φ 2.35 & 3.0 mm) Other standard accessories	
Option	Foot pedal FC-64	

Made in Japan

Select By Easy to Use: Lightweight & Comfortable

In addition to cutting and grinding, micro grinders can also be used for engraving and other delicate work. Therefore, it is important to choose a tool that is easy to use so that you can work steadily for a long time. Choose one that is lightweight and comfortable to hold. Below 2 models are **ultralight** & can be used with your mobile batteries. Easy to carry.

MICRO GRINDER PREMO V-35S

Compact & ultralight Micro Grinder. High-spec model with high precision and ideal torque control, but easy to carry around. Hand piece (189 g) & Controller (82 g)
2,000~35,000 RPM



Micro Grainder Premo PRM-V-35S

MICRO GRINDER PREMO PRM-V-35S / W CHUCK2.34

Ultra-compact, but high-performance micro grinder with max 35,000 RPM. Pursuit of rotation accuracy enables to smooth work with less runout. Ideal torque control provides tenacious power, especially in the low-speed range. Feedback function keeps rotation speed even while working. Safety mechanism stops rotation when overloading.

Item Code	303-056
Model	RPM-V35S
Speed	2,000 – 35,000 RPM
Weight	189 g (Hand piece) 82 g (Controller)
Power	100 - 240V
Accessories	Hand piece (RPM-V35R), Controller (RPM-V35C), Collet chuck (φ 2.34 & φ 3.0 mm), AC Adapter (RPM-V35AD6), Spare Carbon Brush (KE-610)
Made in Japan	

MICRO GRINDER PREMO PRM-25S2

Lightweight Controller is only 50g. Ultra-compact, but high-performance. Very quiet even at high speeds and stable without wobbling. Hand piece (189 g) & Controller (50 g)
2,000~25,000 RPM



Micro Grainder Premo PRM-25S2

MICRO GRINDER PREMO PRM-25S2 / W CHUCK 2.34

Ultra-compact, but high performance, micro grinder with max 25,000 RPM. Only 50g controller and 189g hand piece are lightweight and compact. Easy to carry around. Hand piece has full spec with one-touch release function and high dust-proofing structure. Feedback function keeps rotation speed even while working.

Item Code	303-057
Model	RPM-25S2
Speed	2,000 – 25,000 RPM
Weight	189 g (Hand piece) 50 g (Controller)
Power	100 - 240V
Accessories	Hand piece (RPM-R25), Controller (RPM-C25), Collet chuck (φ 2.34 & φ 3.0 mm), AC Adapter (RPM-AD6), AC pin replaceable type (A-type and C-type), Controller Stand (PS-100), Spare Carbon Brush (KE-610)
Made in Japan	

COMPARISON TABLE

Model	NAKANISHI EMAX EVOLUTION	PREMO PRM-V-35S	PREMO PRM-25S2
RPM	1,000 - 40,000	2,000 - 35,000	2,000 - 25,000
Feedback Function	Yes	Yes	Yes
Speed Control Function	Yes	Yes	Yes
Automatic Stop Function	No	Yes	Yes
Sleep Function	No	Yes	Yes
Weight (Handpiece & Body)	182 g / 2.3 kg	189g / 82 g	189 g / 50 g
Collet Chuck	φ 2.35 & 3.0 mm	φ 2.34 & 3.0 mm	φ 2.34 & 3.0 mm
Enable to use with mobile battery	No	Yes(Batteries not included)	Yes(Batteries not included)
Foot Switch	Yes(Option FC-64)	Yes(Option FS202-V35)	No
Auto-cruise Control	Yes	No	No
Switchable Rotation (Forward& Reverse)	Yes	Yes	Yes
Brushless Motor	Equipped	No (Spare Caron Brush included)	No (Spare Caron Brush included)

Explanation of Function

Automatic Stop Function When Overloaded

If excessive load is applied to buffing, polishing, drilling, etc., even the main unit itself may heat up and eventually break down due to this.

To prevent this from happening, some of them have a function that automatically stops or buzzes you before the unit is overloaded.

Sleep Function

If you do not operate for 5 minutes, the power will be turned off to reduce standby power.

Switchable Rotation (Forward & Reverse)

When the drill gets stuck on the metal, you can change the direction of rotation to remove it.

Auto Cruise Function

A function that allows the user to fix the rotation speed at a certain level when working with the foot controller.

When doing the same work continuously, you don't need to step on the foot pedal all the time, which reduces foot fatigue.

Motor type:

In addition to the conventional brush motors, brushless motors are becoming available these days.

Carbon brushes wear out with use and need to be replaced.

Brushless motors do not have brushes, so they do not need to be replaced and are maintenance free.

DRILL STAND DS-20 PLASTIC BASE

Your hand grinder can be used as simple drilling machine!

Convenient for drilling work. By attaching a hand piece, it can be used as a simple drilling machine. It improves the accuracy of hole drilling work better than by freehand.



Drill Stand



DRILL STAND PLASTIC BASE

Compact, light and simple drill stand for light drilling work. The base part with grooves for table clamp can be fixed to table with clamps. By attaching the handpiece, you can drill more stably and accurately than drilling by hands. Come with 3 types of handpiece fixtures for various shapes of handpieces.

Item Code	303-061
Attachable Handpiece	Approx. ϕ 20 – 40 mm
Material of Body	Plastic
Base Size	100 x 135 mm
Weight / Dimensions	640 g / 185 x 135 x 192 mm (Including lever)
Accessories	3 Types of Handpiece Fixtures / Table Clamps (up to 35 mm)

*Not suitable for heavy drilling work due to the body made of plastic.

<https://www.youtube.com/watch?v=p9g0VoN8iYs>



Drill Stand / Microgrinder stand, handpiece holder

Compact, light and simple drill stand for light drilling work. The base part with grooves for table clamp can be fixed to table with clamps. By attaching the handpiece, you can drill more stably and accurately than drilling by hands. Come with 3 types of handpiece fixtures for various shapes of handpieces.

Item ...
[www.youtube.com](https://www.youtube.com/watch?v=p9g0VoN8iYs)

MICRO GRINDER HD10



Micro Grainder HD10

Micro Grinder HD10

Portable battery operates Micro Grinder. Easy to carry out light work. It comes with diamond bur x 1pc.

Item Code	303-039	303-040
Grit	Purple	Light-Pur
Speed	10000 rpm	
Weight / Size	70 g / ϕ 32.8 x 130 mm	
Shaft diameter	ϕ 2.35 mm	
Battery	AA battery x 2	

HAND DRILL UNIC



Hand Drill Unic

HAND DRILL UNIC

Japanese made hand drills are continuously requested by users. These classic hand drills are still a great way to drill holes precisely and simply.

Item Code	303-058	303-059
Model	MINI	H-102
Drill Size	0.1 - 5.0 mm	0.5 - 6.5 mm
Length	230 mm	300 mm

Made in Japan

COMPACT FOLDABLE DUST BOX



COMPACT FOLDABLE DUST BOX

Dust box prevents scattering of dusts or shavings during the work such as polishing or grinding. Foldable, easy set up with fold line, and convenient to carry. The tray equipped on the bottom makes it easy to clean up after the work. Can fit various spaces, and useful for working at the place where is not your workplace.

Item Code	303-060
Material	PET Resin
Dimensions	280 x 200 x 209 mm (Thickness 0.5 mm) / Hole \varnothing 30 mm
Made in Japan	



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