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> ULTRAFORM UF-0103

ULTRAFORM UF-0103 is the Ultrasonic Polishing Machine which is very powerful. As the main features, you can feel the very strong ultrasonic function with the aggressive polishing power and the powerful DC motor hand piece with the amazing torque output. On the other hand, the ultra-fine polishing and the manual delicate work can be made comfortably. The delicate polishing work that was possible only by hand work can be very easily done with UF-0103.





Highly Powerful Polishing with Output of 100W

The control function of the Oscillator (Controller) has been improved, and by using a large-sized transducer (optional item UF-7405), a wide surface can be roughgrinding with ultrasonic waves at once. The standard supplied DC motor handpiece (PHP35) can maintain

a higher level of rotational torque than the conventional model.



ULTRAFORM UF-0103

Features and Advantages

UF-0103 supports your works such as rough polishing, grinding, removing the machined deformation layer due to EDM, ultra fine polishing, delicate and finishing works in the Mold & Die field.

Polishing Mode (Hard Mode & Soft Mode) NANO Function

Hard Mode keeps vibration constantly against the processing pressure and powerful polishing can be made. Soft Mode automatically weakens vibration according to the processing pressure to prevent damage to the workpiece. Ultra-fine vibration under 1 μ m of amplitude in NANO Function makes the ultrasonic polishing up to the finishing process which was not possible until now and shorten the work time drastically.









TOUCH Function

TOUCH Function ultrasonically vibrates with extremely small amplitude, and when the tip tool comes into contact with the workpiece, it amplifies to the specified amplitude. Also, when the tip tool moves away from the workpiece, it returns to its extremely small amplitude. It prevents damage due to unexpected contact during machining.



User-Friendly LCD Window

The settings and work status are displayed on LCD Window in real time.



Continuous operation

By supplying the cooling air to the transducer when working for a long time or under heavy load, the heat operation can be done.

* Use dry air that does not contain oil.



Small-sized transducer UF-9705 (standard item) has the advantage of operability and versatility.

Large-sized transducer UF-7405 (optional item) can aggressively grind and polish in the wide range

► ULTRAFORM UF-0103

UF-0103 Oscillator (Controller)





Single phase AC100-120V AC200-240V 50/60 Hz
100W (Ultrasonic) DC30V 4A (DC Motor)
300VA
17-31Hz
99 steps (Ultrasonic) 30 steps (DC Motor)
W: 180 mm D : 252 mm H : 215 mm
5.3 kgs

PHP35 DC Motor Hand piece (Standard supplied item)



Rotation speed	0 - 35,000 rpm max.
Torque output	6.5 Ncm
Motor cord length	1.5 M
Dimensions	φ26mm x L150mm
Weight	200 grams

UF-9705 Ultrasonic transducer (Standard supplied item)



Dimensions	φ28mm x L128.5mm
Weight	260 grams
Cable length	1.7 M
Screw thread	M6 (with M6-M4 Adaptor)

UF-7405 Ultrasonic transducer (Optional item)



Dimensions	φ40mm x L150mm
Weight	450 grams
Cable length	1.7 M
Screw thread	M8

No. UF-7116
On / Off Foot switch (Optional item)



This is the Foot switch that can be switched on and off in the ultrasonic function.

VC90

Variable Foot controller (Optional item)



This is the Foot controller that can control the strength of the output according to the degree of stepping on. In the DC motor function,

Auto Cruise Function



Auto Cruise Function constantly controls the rotation speed of DC motor hand piece in the use of VC90 to reduce the burden on your feet.

STANDARD TOOLS and ACCESSORIES FOR UF-0103

For UF-9705 Standard Transducer

For UF-7405 Large-sized Transducer





- ①SE-8851 Diamond file Flat Square 1.0t x 5w x 124L #200 (M4)
- ②SE-5845 Diamond file Flat Square 0.8-0.3t x 4w #200 (M4)
- 3SE-7841 Diamond file Flat with angle 1.0t x 4w 45° #200 (M4)
- **4** SE-6803 Diamond file Cone 3.0 dia. #200 (M4)
- \$SE-3803 Diamond file Trigonal pyramid 3.0Δ #200 (M4)
- ©SD-1802 Diamond stone Cylinder 2.0 dia. #200 (M4)
- ⑦SE-9801 Diamond file Cylinder 1.0 dia. #200 (M4)
- **®**SD-4862 Diamond stone Flat Square 1.5t x 6w #200 (M4)
- (9) MD-8862-C1 Diamond file Flat Square 1.5t x 5w x 81L #200 (M4)
- ① MX-1030 Tool clamps
 For 3.0 dia. (M6)
- ①MX-4010 Tool clamps For 1.0t (M6)
- ①NSP106F Ceramic stone Flat 1.0t x 6w x 40L #600
- ① NSB106F Ceramic stone Flat 1.0t x 6w x 40L #800 Blue
- NSPD3F Ceramic stone Round 3.0 dia. #600 Brown
- (15) NSBD3F Ceramic stone Round 3.0 dia. #800 Blue

- ①LD-0721 Diamond stone 1.0t×20w #320 (M8)
- ②LX-4020-1 Tool clamps For 2.0t (M8)
- 3LD-0762 Diamond stone 2.5t×60w #320 (M8)
- 4 NSP212F Ceramic stone Flat 2.0t×12w #600 Brown
- ⑤NSB212F Ceramic stone Flat 2.0t×12w #800 Blue

* Unit in Size : mm









· ULTRAFORM UF-0103

With MAXIMA EX Series

As the additional items, why not try using MAXIMA EX Series with UF-0103? The various kinds of the hand pieces are prepared in MAXIMA EX Series.



Straight Rotary Hand piece (EX051, EX121, EX131, EX201, EX211, EX231)



90 ° Angle Rotary Hand piece (EX216)

120 Angle Rotary Hand piece (EX217)



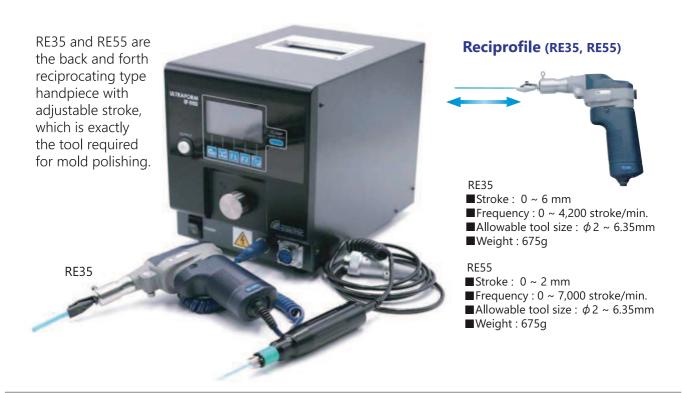
Swingfile (EX208)



- ■Stroke : 0 ~ 1.6mm
- Reciprocating stroke : 0~8,000 times/min.
- Allowable tool size : ϕ 2 ~ 4.7mm
- ■Weight: 316g

► ULTRAFORM UF-0103

With MAXIMA EX Series





SONOFILE SF-355

SF-355 Oscillator (Controller)



Power supply	Single phase AC100-120V AC200-240V 50/60 Hz
Max. Output	45W (Ultrasonic)
Power consumption	150VA
Frequency	20-24Hz
Amplitude adjustment	Continuous variable control
Dimensions	W: 130 mm D : 250 mm H : 230 mm
Weight	2.6 kgs

UF-7083On / Off Foot switch (Optional item)



HP-9706 Ultrasonic transducer (Standard supplied item)



Dimensions	φ28mm x L128.0mm
Weight	150 grams
Screw thread	M6 (with M6-M4 Adaptor)



SF-355 is the small-sized but the rough polishing and fine polishing can be done. It can easily polish the portion where is hard to polish by hand or the narrow grooves finished by EDM.



Continuous operation for SF-355/ST-360

By supplying the cooling air to the transducer when working for a long time or under heavy load, the heat generation is suppressed and continuous operation can be done.

* Use dry air that does not contain oil.

SonoCraft ST-360

ST-360 Oscillator (Controller)



Power supply	Single phase AC100-120V AC200-240V 50/60 Hz
Max. Output	45W (Ultrasonic)
Power consumption	150VA
Frequency	20-24Hz
Amplitude adjustment	Continuous variable control
Dimensions	W: 130 mm D : 250 mm H : 230 mm
Weight	2.6 kgs

UF-7083On / Off Foot switch (Optional item)



HP-9706 Ultrasonic transducer (Standard supplied item)



Dimensions	φ28mm x L128.0mm
Weight	150 grams
Screw thread	M6 (with M6-M4 Adaptor)



Patterns of Oscillation Intervals

Hammering work can be made by the various oscillation pattern (single, intermittent, continuous). The metal engraving works such as stone setting, scraper, blowhole treatment, hammered mark etc., can be also made.





ST-360 can attach the special tool and can be used for pattern cutting with a line spacing of 0.1 mm for PCB modification and for removal of resist film, and is used for multiple purposes such as fossil cleaning and cutting of strata.

► STANDARD TOOLS & ACCESSORIES FOR SF-355/ST-360

For SF-355



- ①SE-8851 Diamond file 1t x 5w #200
- ②SE-5845 Diamond file 0.8-0.3t x 4w #200
- ③SE-7841 Diamond file 1t x 4w 45° #200
- 4 SE-6803 Diamond file 3.0 dia. #200
- ⑤SD-4862 Diamond stone 1.5t x 6w #200
- ⑥SD-4831 Diamond stone
 1t x 3w #200
- ⑦NSR106F Ceramic stone
 6w x 1.0t x 40L #1200
- ® NSW106F Ceramic stone
 6w x 1.0t x 40L #1000
- 9NSB106F Ceramic stone
 6w x 1.0t x 40L #800
- ① NSP106F Ceramic stone
 6w x 1.0t x 40L #600
- ①MX-4010 Tool Clamp for 1.0t (M6)

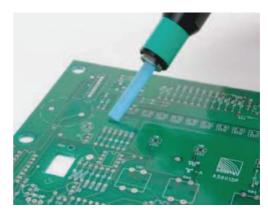


For ST-360 / Multi-purpose Set



- ① SE-8851 Diamond file 1t x 5w #200
- ②SE-5845 Diamond file 0.8-0.3t x 4w #200
- ③HR-2020 Chisel holder
- (4)TF-1000 Chisel Flat shape
- (5) TR-1000 Chisel Round shape
- (6) TB-3000 Chisel Burnishing tool
- ⑦MX-4010 Tool clamps for 1.0t (M6)
- ® NSP106F Ceramic stone
 6w x 1.0t x 40L #600
- 9 NSR106F Ceramic stone
 6w x 1.0t x 40L #1200

* Unit in Size: mm



STANDARD TOOLS & ACCESSORIES FOR ST-360

For ST-360 / Archaeological Set



- ①T89160-X2 Curved tool
- ②HB-1004 Blade holder
- ③HR-2020 Chisel holder
- 4 B-21 Blade 0.4t x 38L
- ⑤ B-11 Blade 0.4t×30L
- ⑥ B-14 Blade 0.4t×30L
- ⑦B-15 Blade 0.4t×24L
- 8B-23 Blade 0.4t×36L
- 9B-10 Blade
- 0.4t×30L ①CS-8120-X3 Ceramic stone 2.0 dia. #800
- ① CS-1568 Ceramic stone Cylindrical type #1200
- (1) CS-1168 Ceramic stone Cylindrical type #1000
- ③CS-8168 Ceramic stone Cylindrical type #800

* Unit in Size : mm

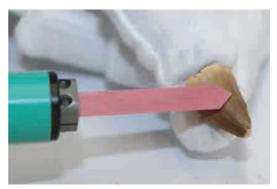


For ST-360 / Chisel Engraving Set





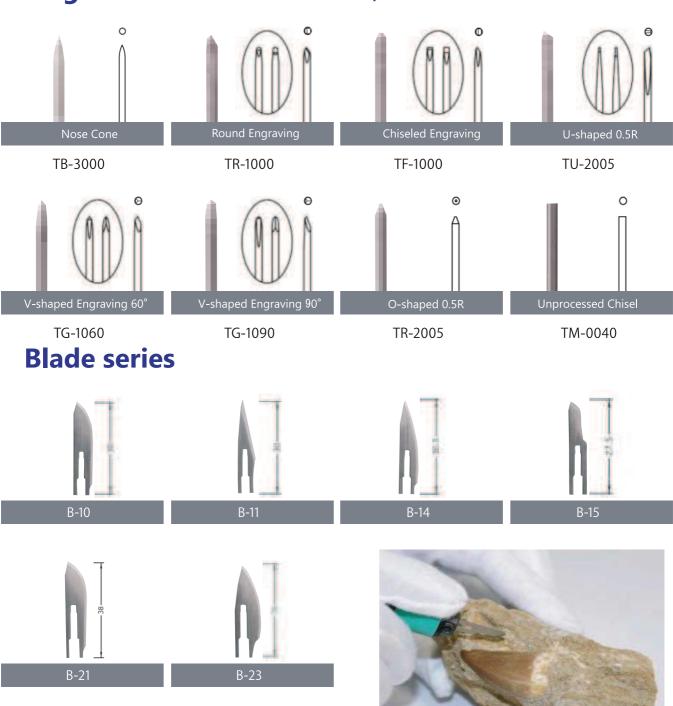
- ①HR-2020 Chisel holder
- ②TB-3000 Chisel Burnishing tool
- ③TR-1000 Chisel Round shape
- 4TF-1000 Chisel
- Flat shape ⑤TG-1060 Chisel
- V-Shaper 60°
- 6TG-1090 Chisel V-Shaper 90°





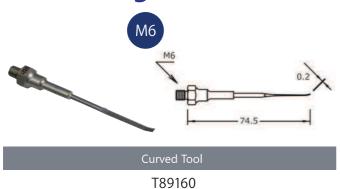
> SPECIAL TOOLS FOR ST-360

Tungsten Chisel series L40 ϕ 2.0



> SPECIAL TOOLS FOR ST-360

Archaeological series



Holders



nisel Holder Blade Holde

ST-360

HR-2020



HB-1004

TOOLS & ACCESSORIES

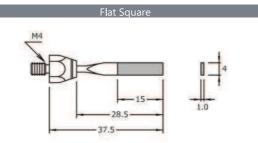
Diamond Files

- •This is the electroplated diamond files exclusively for ultrasonic polishing, which was developed with an emphasis on electrodeposition strength and grinding power.
- •It can be used for rough grinding and deburring of the machined deformation layer due to EDM.
- Various shapes suitable for narrow portion such as rib grooves and small holes are available. Grain size: #200 (Red), #320 (Black), #600 (White)

Please note that although the grinding power is large, deep scratches may remain.

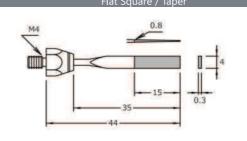






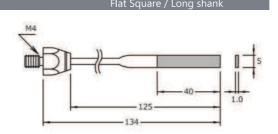
Tool No.	Grain size
SE-4841	200
SE-4741	● 320
SE-4541	○ 600





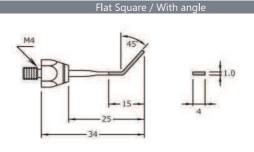
Tool No.	Grain size
SE-5845	200
SE-5745	● 320
SE-5545	○ 600





Tool No.	Grain size
SE-8851	200
SE-8751	● 320
SE-8551	○ 600

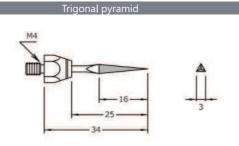




Tool No.	Grain size
SE-7841	2 00
SE-7741	● 320
SE-7541	○ 600

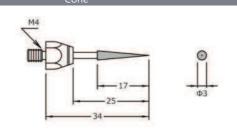
TOOLS & ACCESSORIES





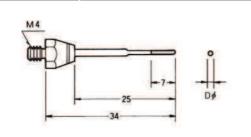
Tool No.	Grain size
SE-3803	200
SE-3703	● 320
SE-3503	○ 600





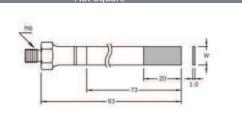
Tool No.	Grain size
SE-6803	200
SE-6703	● 320
SE-6503	O 600





Tool No.	Grain size	D
SE-9801	200	1
SE-9701	● 320	1
SE-9501	○ 600	1
SE-9802	200	2
SE-9702	● 320	2
SE-9502	○ 600	2





Tool No.	Grain size	D
ME-9851	200	5
ME-9751	320	5
ME-9551	○ 600	5
ME-9881	200	8
ME-9781	320	8
ME-9581	○ 600	8

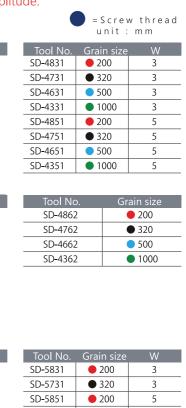


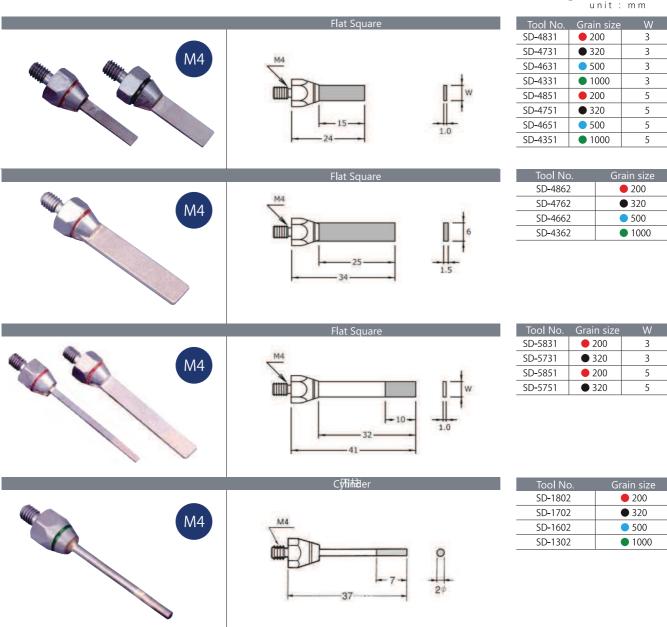
TOOLS & ACCESSORIES

Diamond Stones (Metal bonded)

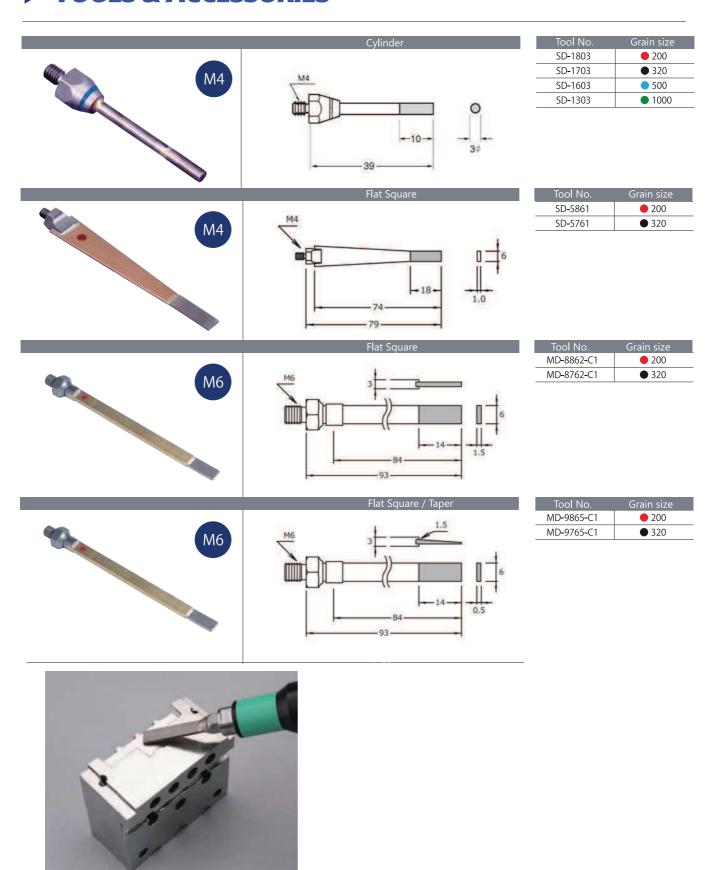
- •This is the special tool made by molding and sintering metal powder and diamond particles.
- •Since it can be used not only on the surface but also inside, it has a longer life than a diamond file.
- •The tip shape can be machined with a GC grinder or diamond file. Grain size: #200 (Red), #320 (Black), #500 (Blue), #1000 (Green)

Since thin tools are easy to break, please use with modest machining pressure and amplitude.



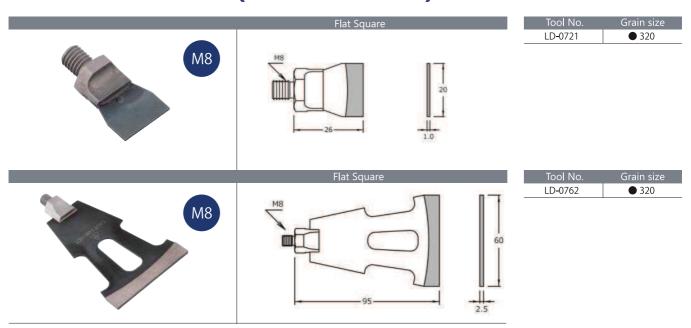


TOOLS & ACCESSORIES



► TOOLS & ACCESSORIES

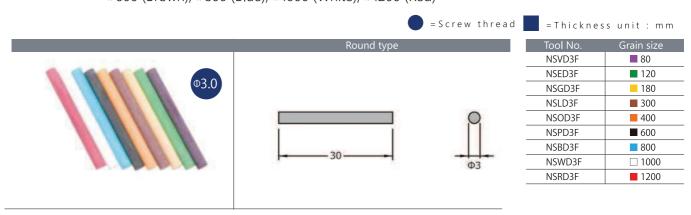
Diamond Stones (Metal bonded)



Ceramic Stones

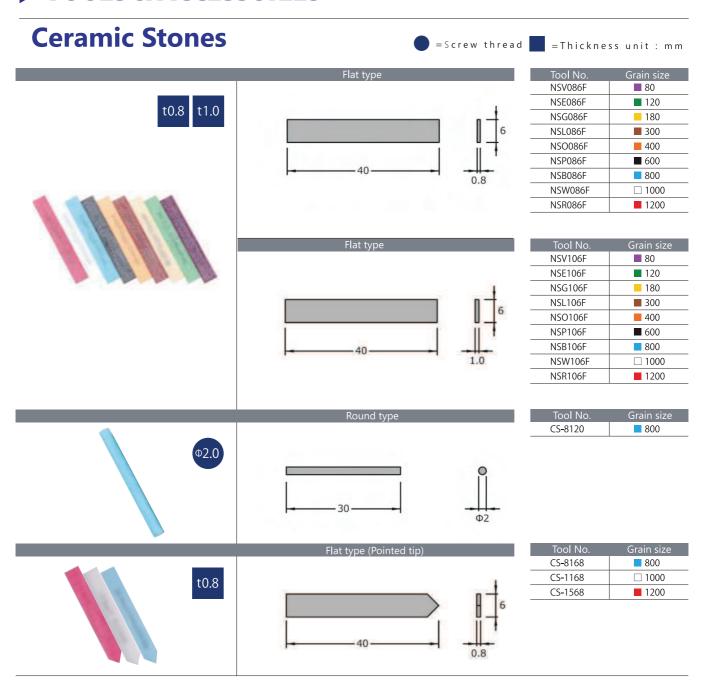
- •This is the composite material of Alumina fibers and Thermosetting resin.
- •It shows high grinding power using alumina fibers with good ultrasonic vibration characteristics.
- •The tip shape can be molded with a file or sander.
- •It can finish smoothly even on fine surfaces and delicate portions.

 Grain size: #80 (Violet), #120 (Emerald), #180 (Gold), #300 (Light Brown), #400 (Orange), #600 (Brown), #800 (Blue), #1000 (White), #1200 (Red)





TOOLS & ACCESSORIES



TOOLS & ACCESSORIES

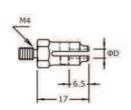
Tool Clamp / Adaptor

- A tool holder for attaching and using marketed tools in addition to ULTRAFORM standard tools.
- Typical sizes are available for both cylindrical and flat tools.
- Check the tool screw diameter of the transducer and the screw diameter of the Tool Clamps.

** Since the clamp tool is easily damaged by heat generation, set the ultrasonic output to clamp mode. (For SF-355 / ST-360, reduce the output to less than half)

(For SF-355 / ST-360, reduce the output to less than half) =Tool screw diameter unit: mm

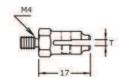






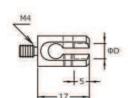
Part No.	D
SX-1002	2
SX-1024	2.4
SX-1003	3.0
SX-1033	3.2







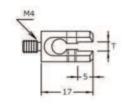






Part No.	D
SX-1004	4.0
SX-1005	5.0
SX-1006	6.0

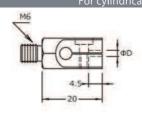






Part No.	T
SX-4008	0.8
SX-4011	1.0
SX-4021	2.0
SX-4031	3.0
SX-4033	3.2



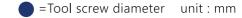




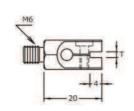
Part No.	D
MX-1020	2.0
MX-1024	2.4
MX-1030	3.0
MX-1033	3.3

TOOLS & ACCESSORIES

Tool Clamp / Adaptor









Part No.	Т
MX-4008	0.8
MX-4010	1.0
MX-4020	2.0
MX-4030	3.0
MX-4033	3.3

For flat tools

Part No.	T
SMAX-2680	0.1~1.5



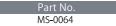






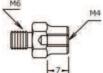
* Use the metal shim attached.

M6-M4 conversion adapter





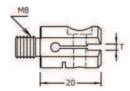














New concept for polishing fine grooves

(Rib grooves)

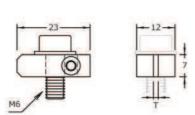
Conventional ultrasonic vibrations are good at polishing the sides of ribs by applying vibrations back and forth, but they could not polish the bottom surface. therefore, we have developed a tool with a new concept and applied vibrations in the thickess and width directions so that the bottom surface, which was difficult to work with until now, can be polished.

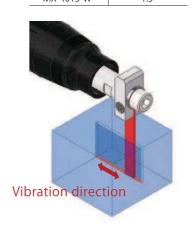
Vibration direction

The back surface (bottom surface) could not be polished by the vibration in the longitudinal direction.

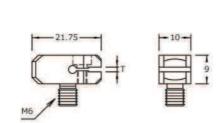


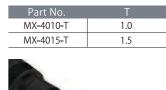


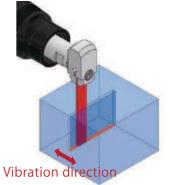












OPTIONAL ITEMS



Protector sleeve

A standard protector sleeve that can secure a wide handle. Screw type

No.UF-7024



Protector sleeve

Protector sleeve for thin tools (chisel) that can secure a wide handle.

No.UF-7046



Protector sleeve

Large-sized protector sleeve that can secure a wide handle. Insert type

No.UF-7025



Foot switch

It is a foot switch to switch over On/Off of ultrasonic oscillation. It turns On while you are stepping on it.

Part No.UF-7083: For SF-355, ST-360 Part No.UF-7085: For UF-0101



Foot switch

It is a foot switch to switch over On/Off of ultrasonic oscillation. It turns On while you are stepping on it

Part No.UF-7116: For UF-0103



Foot controller

The rotation speed of the DC motor handpiece cann be adjusted. The strength is controlled depending on the degree of depressing the foot controller. (Do not use for ultrasonic control)

Part No.VC90: For UF-0103



Transducer cord

This is the cord can connect the transducer and oscillator.

Part No.UF-7055

Applicable oscillator: UF-0103/UF-0101 Applicable transducer: UF-9701/UF-7401



Wrench

Part No.UF-7302: 8 mm Part No.UF-7305: 10 mm Part No.UF-7318: 12 mm Part No.UF-7312: 14 mm



Clamp horn key

Part No.UF-7006: M2.5 Part No.UF-7003: M3 Part No.UF-7005: M4

OPTIONAL ITEMS



Tool extractor

This is the jig that fixes the transducer and assists in attaching and deteching tools. It can be used for transducer with widths of 10mm and 13 mm.

No.UF-7015



Handpiece rest

Hand piece rest made of rubber that allows you to safely place the transducer and DC motor hand piece.

No.UF-7502

Power cord	Part No.	Main using area	Applicable voltage	Plug socket shape
	UF-7100	Japan	100 — 120V	Ш
	UF-7101	USA	100 — 120V	11
	UF-7102	EU	200 — 240V	
5 types of power cord are	UF-7103	Australia	200 — 240V	
available depending on various plug socket shapes.	UF-7107	UK	200 — 240V	



MAXIMA NEO Series

A more powerful model called "MAXIMA NEO" has been joined to the MAXIMA Series. With the new design, the powered-up model has further evolved and as new functions, a Digital Rotation Speed Display Function and a convenient Pause Function are standard equipment. With its excellent Dustproof Function and Rotational Accuracy, it can perform not only precision work such as dental laboratory, jewelry, and wood carving, but also various mold polishing and deburring powerfully.

MOA35ST

MAXIMA NEO PHP35 SET

* Diameter of collet chuck (2.35 / 3.0 / 3.175 mm) are available. When ordering, please advise us which size should be installed into hand piece.

This is the Standard type of Maxima NEO series. Handpiece weight is 200 grams.

■ Package contents

- DC motor hand piece PHP35

 MAXIMA NEO controller NSC90

 Variable Foot Controller TPF100

 Hand piece stand TRC04

 Carbon brushes
- *Chuck wrench & Chuck joint wrench

MAXIMA NEO Controller + PHP35 Brush type motor hand piece Max. Rotation speed is 35,000 rpm Max. Torque output is 6.5 Ncm Hand piece weighs just 200 grams



MOA40ST

MAXIMA NEO PHP40 SET

* Diameter of collet chuck (2.35 / 3.0 / 3.175 mm) are available. When ordering, please advise us which size should be installed into hand piece.

This is the Light-weight type of Maxima NEO series. Handpiece weight is 170 grams.

■ Package contents

- DC motor hand piece PHP40
 MAXIMA NEO controller NSC90
 Variable Foot Controller TPF100
 Hand piece stand TRC04
- Carbon brushes
- •Chuck wrench & Chuck joint wrench

MAXIMA NEO Controller + PHP40 Brush type motor hand piece

Max. Rotation speed is 40,000 rpm Max. Torque output is 6.0 Ncm Hand piece weighs just 170 grams





Lightweight and high-precision handpieces are suitable for a wide range of applications from fine polishing to powerful grinding. The collet chuck uses a convenient one-touch opening / closing method, and the tip tool can be attached/ detached without using a special spanner. In addition, the standard foot pedal is a variable type with an upper limit that can be set.



Stepless Control

Steplessly control the rotation speed of the hand piece.



Rotation Direction Change

One-touch operation to switch between forward and reverse rotation.



Variable Foot Control

Control the rotation speed of the motor byu stepping



Stops and protects the hand piece when the motor is overloaded.



Lavout free design

The shape of the MAXIMA NEO controller is square, so it can be placed horizontally or vertically.



QuidkChuudkSystem

Quick chuck system that allows you to attach and detach tip tools with





- ■Max.Torque Output: 6.0Ncm ■Rotation speed: 0~40,000 rpm min
- ■Motor cord length: 1.5m ■Weight: 170g ■Dimension: φ26×L 145 mm

NSC90

MAXIMA NEO Controller



- ■Input Voltage: AC100V/230V 50/60Hz
- Output Voltage : DC3~30V 0.4A Dimension : 81(w) x 151(D) x 151(H) mm
- ■Max. Output power: 50W ■Weight: 2.15 kg

TPF100

Variable Foot Controller



- ■Weight: 500 g
- Cord length: 1.8m

■ Dimension: 90(w) x 170(D) x 60 (H) mmm

TRC04

Hand piece Stand



- ■Weight: 77 g
- Dimension: 110(w) x 50(D) x 40(H) mm

■Maintenance parts

These parts are supplied as the standard accessories for PHP35/PHP40.

PHP35-4-164

Carbon Brushes Set (1 pair = 2 pcs)

PHP35-301

Chuck Joint Wrench





MAXIMA NEO Series

MOA051S Max.55,000min-1

MAXIMA NEO Controller + EX051 Hand piece Set





Package contents

NEO ControllerNSC90 Variable Foot Controller ... TPF100 Heads JA15 Motors EX05 Hand piece stand TRC04 Carbon brushes

Joint stopper

Chuck wrench

Collet chuck installed



Collet chuck 2.35 mm Dia. is installed into JA15 Head Collet chuck 3.0 mm or 3.175 mm Dia. is supplied as the spare parts

MOA131S Max.35,000min-1

MAXIMA NEO Controller + EX131 Hand piece Set





Package contents

NEO ControllerNSC90 Variable Foot Controller ... TPF100 Heads JA15 Motors EX13 Hand piece stand TRC04

Carbon brushes Joint stopper

Chuck wrench

Collet chuck installed



Collet chuck 2.35 mm Dia. is installed into JA15 Head. Collet chuck 3.0 mm or 3.175 mm Dia. is supplied as the spare parts.

MOA121S Max.20,000min-1

MAXIMA NEO Controller + EX121 Hand piece Set



High Torque type

Package contents

NEO Controller NSC90

Variable Foot Controller ... TPF100 Heads JA15 Motors EX12 Hand piece stand TRC04

Carbon brushes Joint stopper Chuck wrench Collet chuck installed



Auto Cruise Function Keep a constant rotation

Digital Rotation Display

Rotation speed is displayed in digital indicator.



Stepless Control Steplessly control the rotation speed of the handpiece.



Overload Protection Stops and protects the handpiece when the motor is overloaded.



Variable Foot Control Control the rotation speed of the motor by stepping on.



Alarm Function When the motor is loaded, it sounds an alarm to stop and protect the handpiece



Rotation Direction Chang One-touch operation to switch between forward rotation and reverse rotation.



Quick Chuck System Quick chuck system that allows you to attach and detach tip tools with





Equipped with a convenient Hand Switch.

When using the MAXIMA EX motor with the MAXIMA NEO controller, you can turn it On / Off with the Hand Switch.

MAXIMA EX Motor is equipped with a convenient Hand Switch. It is now possible to perform frequent On/Off operations on the Handpiece side during work. Even when the Variable Foot Pedal (TRF100) is connected, the Hand Switch is automatically recognized and On/Off operation is possible.

MOA231S

Max.30,000min-1

MAXIMA NEO Controller + EX231 Hand piece Set





All-Arounder type

Package contents

NEO Controller NSC90 Variable Foot Controller ... TPF100 Heads JA15 Motors EX23 Hand piece stand TRC04 Carbon brushes Joint stopper Chuck wrench Collet chuck installed



Collet chuck 2.35 mm Dia. is installed into JA15 Head Collet chuck 3.0 mm or 3.175 mm Dia. is supplied as the spare parts

MOA211S Max.15,000min-1

MAXIMA NEO Controller + EX211 Hand piece Set





Package contents

Collet chuck installed

NEO ControllerNSC90 Variable Foot Controller ... TPF100 Heads JA15 Motors EX21 Hand piece stand TRC04 Carbon brushes Joint stopper Chuck wrench

MOA201S Max.8,000min-1

MAXIMA NEO Controller + EX201 Hand piece Set



Super Torque type

Package contents

NEO ControllerNSC90 Variable Foot Controller ... TPF100 Heads JA15 Motors EX20 Hand piece stand TRC04

Carbon brushes Joint stopper Chuck wrench Collet chuck installed

For Straight type Hand pieces, we have a lineup of All-Arounder type, High Speed type, High Torque type, and Super Torque type. As one of the selection criteria for different types of Hand pieces, if the head diameter of the tip tool to be used is 6 mm or less, use EX051, EX121, EX131, which are light-weight and easy to handle, and If you powerfully want to use the tip tools with a head diameter larger than 6 mm, please select EX231, EX211, EX201 with large torque. Also, select a High Speed type for carbide cutters and diamond points, and an All-Arounder type Hand piece when using a lot of rubberrized mounted points. Felt Buffs, Brushes, etc.

High-Performance Hand piece with Detachable Motor part and Head part

Head part and Motor part can be attached and detached easily and quickly by using a coupler joint system that simply pulls up the Ring on the Head part. You can freely switch from a Straight type Hand piece to an Angle type or Swing type Hand piece.



Motors **EX05** EX12 **EX13**

> Motors EX23 **EX21 EX20**



Auto Cruise Function Keep a constant rotation



Stepless Control Steplessly control the rotation speed of the handpiece.



Overload Protection Stops and protects the handpiece when the motor is overloaded.



Alarm Function When the motor is loaded, it sounds an alarm to stop and protect



Rotation Direction Change One-touch operation to switch between forward rotation and reverse rotation.



Quick Chuck System Quick chuck system that allows you to attach and detach tip tools with one-touch.



Digital Rotation Display Rotation speed is displayed in digital indicator.

the handpiece.

► Angle Rotary Hand piece & Swingfile Set

This is Angle Rotary Hand piece which is equipped with a 90 and 120 Angle Heads on a High Power Motor with a Hand Switch. Furthermore, It is Swingfile that swings sideways to the left and right. You can freely adjust the speed and amplitude.

MOA216S Max.15,000min-1

MAXIMA NEO Controller + EX216 Hand piece Set



90° Angle type

Package contents

Carbon brushes
Joint stopper

Chuck wrench
Collet chuck installed

MOA217S Max.15,000min-1

MAXIMA NEO Controller + EX217 Hand piece Set



● 120° Angle type

Package contents

Carbon brushes
Joint stopper

Chuck wrench

Chuck wrench

Collet chuck installed



* Collet chuck 3.0 mm Dia. is installed into JR21 Head. Collet chuck 2.35 mm or 3.175 mm Dia. is supplied as the spare parts



MOA208S



MAXIMA NEO Controller + EX208 Hand piece Set

Swingfile

Hand piece stand TRC04

Carbon brushes

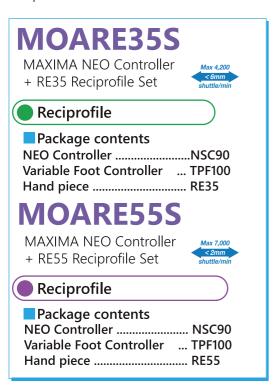
Instead of Collet system, V ditch chuck is mounted. 2.0-4.7mm Dia. of tip tools can be installed. Polish the bottom of the workpiece, deep cavities, corners to grooves.





► Reciprofile Set

This is the electric filing machine that reciprocates back and forth with a stroke adjustment function. We have a lineup of two types, RE35 emphasizes stroke, and RE55 has an advantage in speed.





Belt Sander Set

Ideal for deburring work on flat surfaces, curved surfaces, and edge surfaces. The belt and belt arm are removable by one-touch operation.







Auto Cruise Function Keep a constant rotation



Stops and protects the handpiece when the motor is overloaded.



One-touch operation to switch between forward rotation and reverse rotation.



Variable Foot Control
Control the rotation speed
of the motor by stepping on.

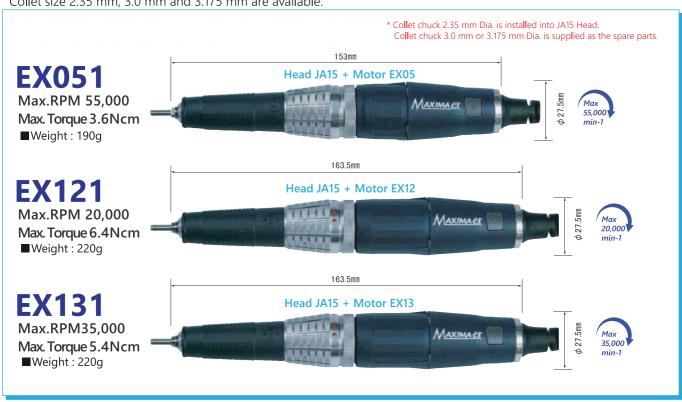


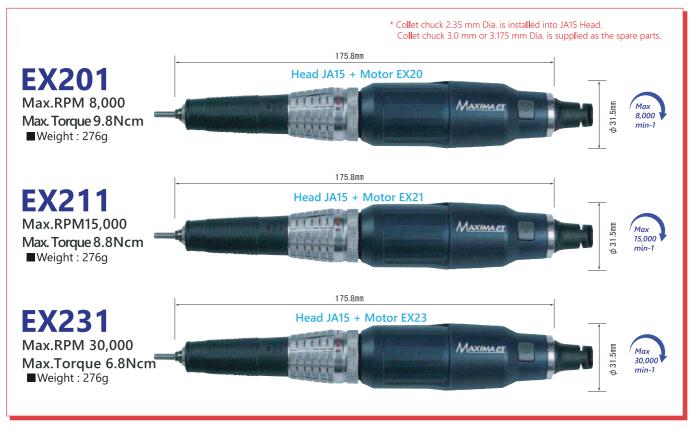
Stepless Control
Steplessly control the rotation
speed of the handpiece.

Rotary Hand piece (Head + Motor Separate type)

This is the Rotary Hand piece which is 2 pieces construction joined the Detachable Head to Motor equipped with the Hand Switch. It can be widely used for grinding, polishing, deburring, etc.

Collet size 2.35 mm, 3.0 mm and 3.175 mm are available.







Hand Switch

It is easy to start and stop by Hand Switch. It is not necessary to press the button on the controller.

Collet size 2.35 mm, 3.0 mm and 3.175 mm are available.











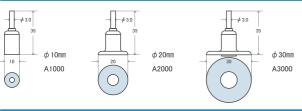




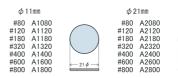




SOFT RUBBER MANDRELS



SILICONE CARBIDE ABRASIVE DISCS



FELT DISCS





POLYMOND DIAMOND ABRASIVE DISCS





φ21mm #280 HDP2028 #400 HDP2040 #600 HDP2060 #1000 HDP2100



φ31mm #280 #400 #600 #1000 HDP3028 HDP3040 HDP3060 HDP3100



φ 11mm A1001



∂ 21mm A2001



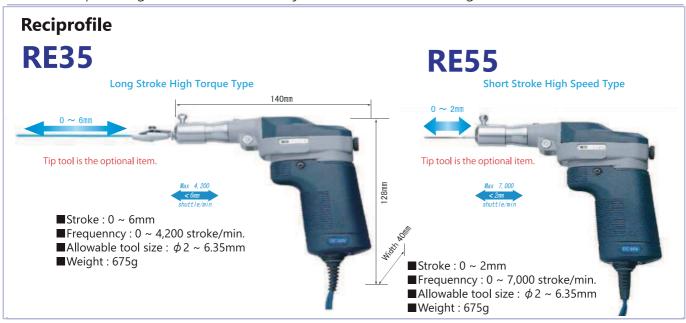
ტ 31mm A3001

Swingfile (Head + Motor Separate type) & Reciprofile

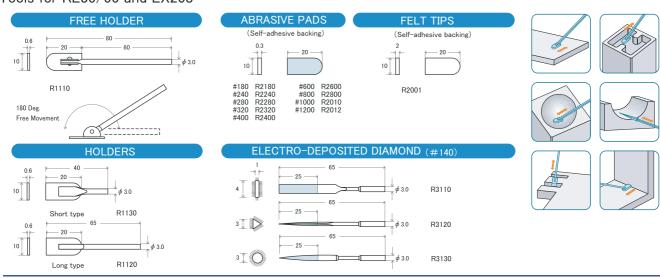
Swingfile EX208 a unique sideways reciprocating action with a choice of speed and stroke is perfect for polishing base areas in deep cavities, corners and deep slots. The Hand piece EX208 consists of Head JP11 and Motor EX20.



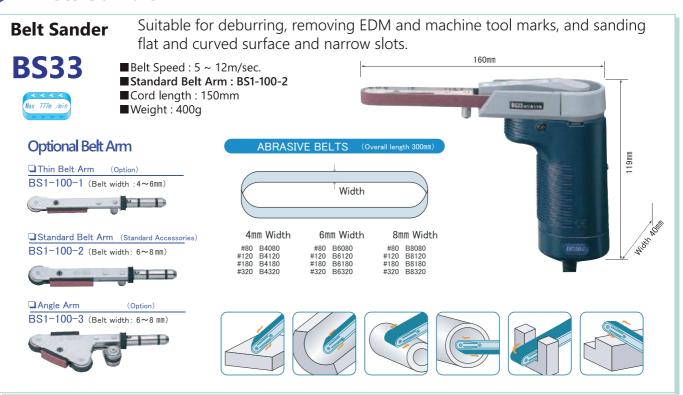
RE35 and RE55 reciprocatinng profilers are light-weight and comfortable Hand pieces for continuous polishing. Both models have adjustable stroke and floating Head with 360° orientation.



Tools for RE35/55 and EX208



Belt Sander



Controller

EXP-120 & EXP-230

(AC120V type) (AC230V type)

■ Input Voltage: AC120V / AC230V, 50/60Hz ■ Dimension: 200(w) x 180(D) x 110(H) mm

■ Max. Output power: 120 W

■ Weight: 2.3 kgs

With digital rotation display function.

Two hand pieces can be connected, and it also supports Motors with a Hand Switch.

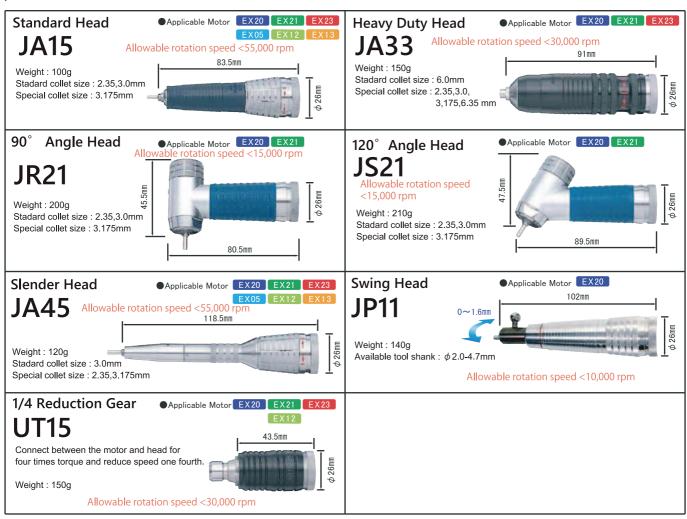


Accessories





Heads

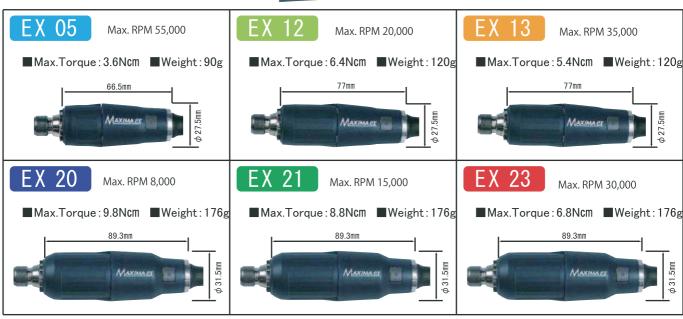


► Motors

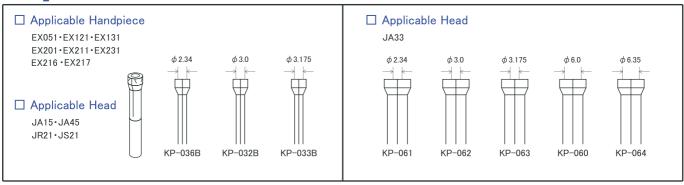


Hand Switch

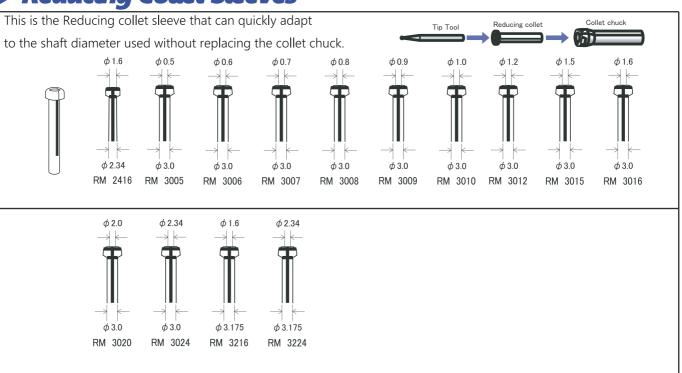
It is easy to start and stop by Hand Switch. It is not necessary to push the button on the controller.



Optional Collet Chuck



► Reducing Collet Sleeves



VC90

Variable Foot Controller

In addition to turning on / off the rotation, the output value can be adjusted by stepping on.



Cord length: 1.5m

■Size : 100W x 185D x 75H mm

KE50-155

Hand piece Extension Cord

The length of the motor cord of MAXIMA EX MOTOR can be extended.



■Cord length: 3m

TRC02

Hand piece Stand

The handpiece can be placed on the Hand piece Cradle when not in use.



■Weight : 77g

■Size : 110W x 50D x 40H mm

Straight Rotary Hand piece Set

MAXIMA EX Series are the high-class and high-performance micro grinder system. The motor has a Hand Switch that can be turned On and Off at hand, the Motor part and Head part can be attached and detached with an attachment and exchangeable, various combinations can be made according to the applications.

MEX051S Max.55,000min-1 Max.Torque: 3.6Ncm

MAXIMA EX Controller + EX051 Hand piece Set



High Speed type

Package contents

EX Controller EXP230(120) Variable Foot Controller ... VC90

Heads JA15 Motors EX05

Hand piece stand TRC02

Carbon brushes

Joint stopper

Chuck wrench

Collet chuck installed



Collet chuck 2.35 mm Dia. is installed into JA15 Head. Collet chuck 3.0 mm or 3.175 mm Dia. is supplied as the spare parts.

MEX131S Max.35,000min-1 Max.Torque: 5.4Ncm

MAXIMA EX Controller + EX131 Hand piece Set



All-Arounder type

Package contents

EX Controller EXP230(120) Variable Foot Controller ... VC90

Heads JA15 Motors EX13

Hand piece stand TRC02 Carbon brushes

Joint stopper

Chuck wrench

Collet chuck installed



MEX121S Max.20,000min-1 Max.Torque: 6.4Ncm

MAXIMA EX Controller + EX121 Hand piece Set





Package contents

EX Controller EXP230(120)

Variable Foot Controller ... VC90 Heads JA15 Motors EX12 Hand piece stand TRC02

Carbon brushes Joint stopper Chuck wrench Collet chuck installed



Auto Cruise Function Keep a constant rotation



Stepless Control Steplessly control the rotation speed of the handpiece.





Overload Protection Stops and protects the handpiece when the motor is overloaded.



Alarm Function When the motor is loaded, it sounds an alarm to stop and protect the handpiece.



Rotation Direction Change One-touch operation to switch between forward rotation and reverse rotation.



Quick Chuck System Quick chuck system that allows you to attach and detach tip tools with one-touch



Digital Rotation Display Rotation speed is displayed in digital indicator



Control the rotation speed of the motor by stepping on.



Equipped with a convenient Hand Switch.

When using the MAXIMA EX motor with the MAXIMA EX controller, you can turn it On / Off with the Hand Switch.

MAXIMA EX Motor is equipped with a convenient Hand Switch. It is now possible to perform frequent On/Off operations on the Handpiece side during work. Even when the Variable Foot Pedal (VC90) is connected, the Hand Switch is automatically recognized and On/Off operation is possible. Also, even when 2 types of hand pieces are connected, the handpiece that presses the Hand Switch is automatically recognized without switching Stations on the Controller side. Equipped with a convenient

MEX231S Max.30,000min-1 Max.Torque: 6.8Ncm

Max.30,000min-1

MAXIMA EX Controller + EX231 Hand piece Set



All-Arounder type

Package contents

EX Controller EXP230(120) Variable Foot Controller ... VC90

Heads JA15 Motors EX23

Hand piece stand TRC02

Carbon brushes Joint stopper Chuck wrench

Collet chuck installed



Collet chuck 3.0 mm or 3.175 mm Dia. is supplied as the spare parts.

MEX211S Max.15,000min-1 Max.Torque: 8.8Ncm

MAXIMA EX Controller + EX211 Hand piece Set



High Torque type

Package contents

EX Controller EXP230(120) Variable Foot Controller ... VC90 Heads JA15 Motors EX21

Hand piece stand TRC02 Carbon brushes Joint stopper Chuck wrench

Collet chuck installed

MEX201S Max.8,000min-1 Max.Torque: 9.8Ncm

MAXIMA EX Controller + EX201 Hand piece Set



Super Torque type

Package contents

EX Controller EXP230(120) Variable Foot Controller ... VC90 Heads JA15 Motors EX20 Hand piece stand TRC02 Carbon brushes

Joint stopper Chuck wrench Collet chuck installed For Straight type Hand pieces, we have a lineup of All-Arounder type, High Speed type, High Torque type, and Super Torque type. As one of the selection criteria for different types of Hand pieces, if the head diameter of the tip tool to be used is 6 mm or less, use EX051, EX121, EX131, which are light-weight and easy to handle, and If you powerfully want to use the tip tools with a head diameter larger than 6 mm, please select EX231, EX211, EX201 with large torque. Also, select a High Speed type for carbide cutters and diamond points, and an All-Arounder type Hand piece when using a lot of rubberrized mounted points. Feltt Buffs, Brushes, etc.

High-Performance Hand piece with **Detachable Motor part and Head part**

Head part and Motor part can be attached and detached easily and quickly by using a coupler joint system that simply pulls up the Ring on the Head part. You can freely switch from a Straight type Hand piece to an Angle type or Swing type Hand piece.



STOP



Motors **EX05 EX12 EX13**

> Motors **EX23 EX21 EX20**



Auto Cruise Function Keep a constant rotation



Stepless Control Steplessly control the rotation speed of the handpiece



Alarm Function When the motor is loaded, it sounds an alarm to stop and protect the handpiece.

Stops and protects the handpiece

when the motor is overloaded.

Overload Protection



Rotation Direction Change One-touch operation to switch between forward rotation and reverse rotation.



Quick Chuck System Ouick chuck system that allows you to attach and detach tip tools with one-touch.



Digital Rotation Display Rotation speed is displayed in digital indicator



Variable Foot Control Control the rotation speed of the motor by stepping on.

► Angle Rotary Hand piece & Swingfile Set

This is Angle Rotary Hand piece which is equipped with a 90 and 120 Angle Heads on a High Power Motor with a Hand Switch. Furthermore, It is Swingfile that swings sideways to the left and right. You can freely adjust the speed and amplitude.

MEX216S Max.15,000min-1 Max.Torque: 8.8Ncm

+ EX216 Hand piece Set



90° Angle type

Package contents

EX Controller EXP230(120)

Variable Foot Controller ... VC90 Heads JR21 Motors EX21

Hand piece stand TRC02

Carbon brushes
Joint stopper

Chuck wrench

Collet chuck installed



Collet chuck 3.0 mm Dia. is installed into JR21 Head.
Collet chuck 2.35 mm or 3.175 mm Dia. is supplied as the spare parts.

MEX217S Max.15,000min-1 Max.Torque: 8.8Ncm

MAXIMA EX Controller + EX217 Hand piece Set



🛑 120° Angle type

Package contents

EX Controller EXP230(120)

Variable Foot Controller ... VC90 Heads JS21

Motors EX21 Hand piece stand TRC02

Carbon brushes
Joint stopper

Chuck wrench

Collet chuck installed



MEX208S



MAXIMA EX Controller

+ EX208 Hand piece Set

Swingfile

Package contents

EX Controller EXP230(120)

Variable Foot Controller ... VC90
Heads JP11
Motors EX20
Hand piece stand TRC02

Carbon brushes

Instead of Collet system, V ditch chuck is mounted. 2.0-4.7mm Dia. of tip tools can be installed. Polish the bottom of the workpiece, deep cavities, corners to grooves.



► Angle Rotary Hand piece & Swingfile Set

This is Angle Rotary Hand piece which is equipped with a 90 and 120 Angle Heads on a High Power Motor with a Hand Switch. Furthermore, It is Swingfile that swings sideways to the left and right. You can freely adjust the speed and amplitude.

MEX216S Max.15,000min-1 Max.Torque: 8.8Ncm

MAXIMA EX Controller + EX216 Hand piece Set



90° Angle type

Package contents

EX Controller EXP230(120)

Variable Foot Controller ... VC90 Heads JR21 Motors EX21

Hand piece stand TRC02

Carbon brushes
Joint stopper

Chuck wrench

Collet chuck installed

MEX217S Max.15,000min-1 Max.Torque: 8.8Ncm

MAXIMA EX Controller + EX217 Hand piece Set



🔵 120° Angle type

Package contents

EX Controller EXP230(120)

Variable Foot Controller ... VC90 Heads JS21 Motors EX21

Hand piece stand TRC02

Carbon brushes
Joint stopper

Chuck wrench

Collet chuck installed





MEX208S



MAXIMA EX Controller

+ EX208 Hand piece Set

Swingfile

Package contents

EX Controller EXP230(120)

Variable Foot Controller ... VC90
Heads JP11
Motors EX20
Hand piece stand TRC02

Carbon brushes

Instead of Collet system, V ditch chuck is mounted. 2.0-4.7mm Dia. of tip tools can be installed. Polish the bottom of the workpiece, deep cavities, corners to grooves.



GRANDE

Hybrid Micromotor System Grande Set is the best combination that consists of the powerful controller and the brushless motor (BLDC) handpiece that provides stable torque from low to maximum rotations. It minimizes heat generation and has an excellent dustproof structure for continuous use. The collet chuck uses a convenient one-touch opening / closing method, and the tip tool can be attached / detached without using a special spanner. In addition to high speed rotation and strong torque, it is extremely quiet and can be used for a wide range of applications such as mold polishing, deburring of parts, jewelry making, wood carving, and glass litzen. As the optional item, the brush motor(DC) hand pieces are also prepared.

BLH600ST **GRANDE BLH600 SET**

Maximum rotation speed: 50,000 rpm Maximum torque output: 7.8 Ncm





Diameter of collet chuck (2.35 / 3.0 / 3.175 mm) are available. When ordering, please advise us which size should be installed into hand piece.

Package contents

- Super high speed brushless motor hand piece BLH600
- Hybrid controller GRC2000 (AC100-120V) / GRC2022 (AC200-240V)
- Variable Foot Controller GRF60
 Hand piece holder...... GRC02
- Collet chuck changing jig set BLH6070

Brushless motor (BLDC) hand piece and Brush motor (DC) hand piece can be alternately used in one controller because of Hybrid system which is adopted for this Hybrid Micromotor system GRANDE Set. As further attractive functions, you can experience the Auto-cruise system which the hand piece is run at the same rotation speed even if you step out from the foot pedal. Its rotation speed of BLH600 brushless motor hand piece is 50,000 rpm max but very Silent construction and you can see the rotation speed in the RPM digital display. Torque output is computer-controlled (Torque control system) and the contents of the error is indicated in the display by Egodiagnostic system.

When you would like to change other diameter of collet chuck, it is very easy to make it due to Easy collet change system.















Auto Cruise Function Keep a constant rotation



Digital Rotation Display Rotation speed is displayed in digital indicator.



Rotation Direction Change

One-touch operation to switch between forward rotation and reverse rotation.



Hand piece holder

Hand piece holder that can insert the hand pieces are included as 2 pcs.



Variable Foot Control Control the rotation speed of the motor by stepping on.



Alarm Function

When the motor is loaded, it sounds an alarm to stop and protect the handpiece.



Stepless Control

Steplessly control the rotation speed of the handpiece.



Safety Function

Reliable design that the controller detects the idle rotation of the motor and forcibly stops the handpiece.



Overload Protection

Stops and protects the handpiece when the motor is overloaded.



Quick Chuck System

Quick chuck system that allows you to attach and detach tip tools with one-touch.

► HIGH TORQUE ADAPTOR

New Adaptor system model No.BLH-ADA can be installed with GRANDE brushless motor hand piece BLH600 and you can apply 6 types of Maxima EX Series Heads such as JA15, JA33, JA11, JA45, JR21, JS21. The torque output you can obtain with this Adaptor system, is more than double than our Conventional Maxima EX Motors EX23, EX21 and EX20.

It is the strongest torque with this system when applied on JA33 Heavy Duty head (for 6mm shank tool). Hybrid Micromotor System Grande Set is the best combination that consists of the powerful controller and the brushless motor handpiece BLH600 that provides stable torque from low to maximum rotations.



BLH-ADA

Example of connection between BLH600 Motor and JS21 Head by BLH-ADA

	•	,
1.	Head part Motor part	This is the brushless motor hand piece BLH600. You can see the Head part and Motor part.
2.		Unscrew the Head part from the Motor part.
3.	Cover Ring	Insert "Cover Ring" into the Motor part.
4.		"Cover Ring" is connected with the Motor part.
5.	Adaptor	Insert and screw Adaptor with Motor part.
6.	Adaptor	Adaptor is connected with Motor part.
7.	Connector JS21 head Connector	Insert Connector into JS21 head
8.	Ring Connector Adaptor	Connect JS21 Head with Adaptor. Pull the ring to Head side when attaching Adaptor.
9.		Finished



Micromotor System MAXIMA

MAXIMA Series

Micromotor system MAXIMA Series are a very easy-to-use, easy-to-handle as the entry model, and at the same time, it can be used for various purposes as a professional use. Precision work such as wood carving, jewelry etc., and powerful grinding and polishing work such as mold polishing, deburring can also be performed. As for the handpiece, powerful PHP35 with 35,000 rpm and light-weight PHP40 with 40,000 rpm are prepared for MAXIMA Series.

MPS35ST

MAXIMA PS220 + PHP35 SET

MAXIMA PS220 Controller + PHP35 Brush type motor hand piece Max. Rotation speed is 35,000 rpm

Max. Torque output is 6.5 Ncm Hand piece weighs just 200 grams



This is the Standard type of Maxima series. Handpiece weight is 200 grams.

■Package contents

- •DC motor hand piece PHP35
 •MAXIMA controller PS220
 •Variable Foot Controller TPF77
- •Hand piece stand TRC02
- Carbon brushes
- Chuck wrench & Chuck joint wrench



MPS40ST

MAXIMA PS220 + PHP40 SET

MAXIMA PS220 Controller + PHP40 Brush type motor hand piece

Max. Rotation speed is 40,000 rpm Max. Torque output is 6.0 Ncm

Hand piece weighs just 170 grams



This is the Light-weight type of Maxima series. Handpiece weight is 170 grams.

■ Package contents

- •DC motor hand piece
 PHP40

 •MAXIMA controller
 PS220

 •Variable Foot Controller
 TPF77

 •Hand piece stand
 TRC02
- Carbon brushes
- *Chuck wrench & Chuck joint wrench





Micromotor System MAXIMA

MAXIMA Series

MAXIMA all purpose micro hand piece PHP35 or PHP40 are craftsman designed and modeled. Controller PS220 is the compact sized, continuously variable speed control. Automatic stop turning on Red light with alarming beep sound and resetting when overloaded.



Stepless Control

Steplessly control the rotation speed of the hand piece.



Overload protection

Stops and protects the hand piece when the motor is overloaded.



Rotation Direction Change

One-touch operation to switch between forward and reverse rotation.



QuidkChuudkSystem

Quick chuck system that allows you to attach and detach tip tools with



Variable Foot Control

Control the rotation speed of the motor byu stepping on.



* Diameter of collet chuck (2.35 / 3.0 / 3.175 mm) is available.

MAXIMA DC Motor Handpiece





- * Tip Tool is optional item.
- ■Max.Torque Output: 6.5Ncm ■Rotation speed: 0~35,000 rpm min
- ■Motor cord length: 1.5m ■Weight: 200g ■Dimension: φ26×L 150 mm

PHP40

* Diameter of collet chuck (2.35 / 3.0 / 3.175 mm) is available.

MAXIMA DC Motor Handpiece (Lightweight type)





- * Tip Tool is optional item.
- ■Max.Torque Output: 6.0Ncm ■Rotation speed: 0~40,000 rpm min
- ■Motor cord length:1.5m ■Weight:170g ■Dimension:φ26×L 145 mm

PS220

MAXIMA Controller



- ■Input Voltage : AC100V 240V 50/60Hz
- Output Voltage : DC3~30V 0.4A
- Dimension : 110(w) x 148(D) x 98(H) mm
- ■Max. Output Power: 90W
- ■Weight: 1.6 kg

TPF77

Variable Foot Controller



- ■Weight : 580 g
- ■Cord length: 1.8m
- Dimension : 110(w) x 170(D) x 70 (H) mmm

TRC02

Hand piece Stand



- ■Weight : 77 g
- ■Dimension : 110(w) x 50(D) x 40(H) mm

■ Maintenance parts

These parts are supplied as the standard accessories for PHP35/PHP40.

PHP35-4-164

Carbon Brushes Set (1 pair = 2 pcs)

PHP35-301

Chuck Joint Wrench



MAXIMA – systemy mikrosilników





IF YOU HAVE ANY QUESTIONS

PLEASE FEEL FREE TO CONTACT US!

OUR BUSINESS:

- Mold & Die and Industrial field
- Plastics & Robotic Industry
- Jewelry

