

Micromotor Systems



Micromotor Systems

Designed to Meet Your Needs

Our micromotor systems utilize cutting-edge technology to meet or exceed the standards of professionals who demand accuracy, speed, and ease of use. Select between brushless and brush-style versions as well as rotary-only or systems which include a variety of head choices and reciprocation. Whether you are polishing, drilling, cutting, finishing, or grinding, our diverse selection of micromotor systems ensure you will find the perfect fit for your needs.



Power Hand® 3 Controller Specifications

Designed with the latest technology in micromotor systems, the Power Hand® 3 can handle almost any finishing job. This interchangeable system allows the operator to choose from a selection of motors and heads to create the right tool for various polishing applications. With the quick disconnect feature, the operator can switch heads within seconds.



Description	SKU
PH3 Controller, 115V	5103300
PH3 Controller, 230V	5103302

Forward/Reverse button

To control the rotational direction for each motor. LED light indicates rotational direction.

Optional PH2X Handpieces

Our previous Power Hand® 2X handpieces with three-prong plugs will connect directly to the controller. RPM display, load indicator, and error code message will not be displayed.

Optional Variable Speed Foot Rheostat

Now with the Auto Cruise feature, it is possible to set a fixed speed with the optional foot pedal, allowing the operator to free their foot from the pedal.

Load Indicator



8 steps of LED lights from green to yellow to red. The display lights up when too much force is applied. For the best results and long life, stay within the green.

Digital Rotation Display



2-digit display for easy adjustment of rotation speed. Dialing in the exact RPM for each tool ensures optimal performance.

Error Code



Displays an error message for easy troubleshooting due to heat build-up, overloading the handpiece, or a defective motor cord.

PH3 Adapter and Foot Rheostat

Use our PH3 Adapter to connect new Power Hand® 3 motors (5-prong plugs) to your older PH2X controllers (3-prong receptacles).

Rather than use the speed regulator on the controller, consider purchasing our Variable Speed Foot Rheostat.

	Description	SKU
A.	PH3 Adapter (optional)	5103304
B.	Variable Speed Foot Rheostat (optional)	5103306



Power Hand® 3 Rotary Handpiece

Specifications

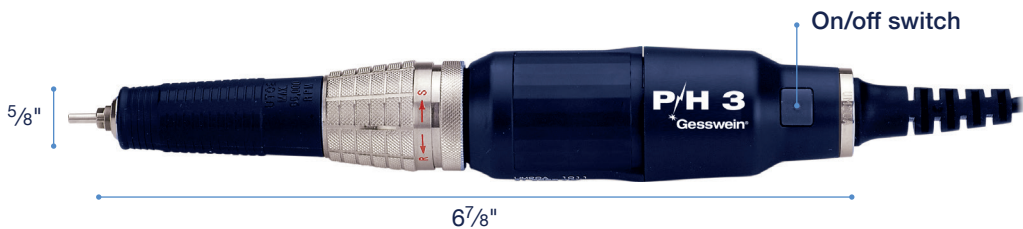
Choose from six sturdy, true-running, well-balanced handpieces with powerful 30V DC air-cooled motors. The improved motor design increases torque by 20% and increases airflow to keep handpieces cool. They operate with minimal vibration and have flexible power cords for easy reach. All handpieces have a quick tool change feature and a new on/off switch located on the motor. All six handpieces are two-piece construction and can accept various Power Hand® attachments. Supplied with 3/32" and 1/8" collets, collet wrenches, and replacement motor brushes.

High-Torque Rotary Handpieces

Designed to handle the toughest jobs. These workhorses have the highest torque rating. Use for hand grinding, heavy deburring, cutting, polishing, and finishing all types of materials.

Weight: 9.74oz.

Description	Speed	Torque (N-cm)	SKU
08X	1,000-8,000rpm	9.8	5103310
15X	1,000-15,000rpm	8.8	5103320
30X	1,000-30,000rpm	6.8	5103340



Standard Handpieces

These handpieces are smaller and lighter in weight compared to the high-torque handpieces. They fit comfortably in the hand and are well suited for continuous use for general-purpose grinding and polishing.

Weight: 7.76oz.

Description	Speed	Torque (N-cm)	SKU
20X	1,000-20,000rpm	6.4	5103330
35X	1,000-35,000rpm	5.4	5103350



High-Speed Handpiece

The lightest, fastest, and most comfortable of our straight rotary handpieces. Use for precision work at high speeds.
Weight: 6.70oz.

Description	Speed	Torque (N-cm)	SKU
55X	1,000-55,000rpm	3.6	5103370



Power Hand® SZX Side-to-Side Profiler

Provides unique side-to-side reciprocating action with adjustable stroke. Perfect for polishing base areas in deep cavities, corners, and deep slots. Helps eliminate rounding of sharp corners. Prevents bottoming out in blind holes. Holds 1.5 to 5mm (3/16") diameter tools. Used with Power Hand® 3 Controller 5103300.
Weight: 10oz.

Description	Stroke Length	SKU
SZX Profiler	0-1.6mm	5103309



Collets for Straight and Angle Rotary Handpieces

For all Straight and Angle Handpieces except Power Hand® Z-HDX Heavy-Duty Head and Micro-Angle Heads.



Size	3/32" (2.35mm)	3.00mm	1/8" (3.2mm)
SKU	5010100	5010106	5010105

Reducing Collets

Use the proper reducing collet to convert your standard 1/8", 3mm or 3/32" collet to hold a 3/32" or 1/16" tool shank. Simply slip a reducing collet into the collet on your handpiece to use smaller shanked tools.



Size	1/8" to 3/32"	1/8" to 1/16"	3mm to 3/32"	3mm to 1/16"	3/32" to 1/16"
SKU	8161501	8161502	8161504	8161505	8161503

Power Hand® 3 Motor Specifications

Purchase a motor separately to construct your own Power Hand® 3 tool. All Power Hand® 3 rotary handpieces are two-part design so heads and motors can be switched to create new combinations to best suit your particular job. All motors feature a convenient on/off switch. RPM speed is indicated on the motor casings. Supplied with a pair of replacement motor brushes.

High-Torque Motors

Weight: 6.2oz.

Description	Speed	Max. Torque (Ncm)	SKU
M-08X	1,000–8,000rpm	9.8	5103311
M-15X	1,000–15,000rpm	8.8	5103321
M-30X	1,000–30,000rpm	6.8	5103341



Standard Motors

Weight: 4.25oz.

Description	Speed	Max. Torque (Ncm)	SKU
M-20X	1,000–20,000rpm	6.4	5103331
M-35X	1,000–35,000rpm	5.4	5103351



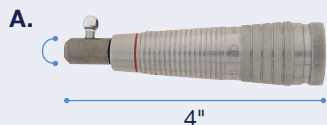
High-Speed Motor

Weight: 3.2oz.

Description	Speed	Max. Torque (Ncm)	SKU
M-55X	1,000–55,000rpm	3.6	5103371

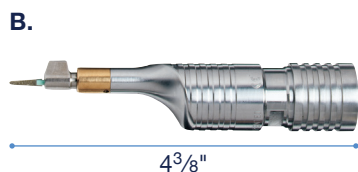


Power Hand® 3 Head Attachment Specifications



A. SZX Swing Head – For use with M-08X motor only

Description	Max. Strokes/Min.	SKU
Swing Head	8,000	5102256



B. Mini Filer Heads – For best results use with M-08X motor

Fixed Stroke Length	Max. Strokes/Min.	SKU
0.5mm	12,000	5102266
1.0mm	12,000	5102264
1.5mm	12,000	5102265



C. Standard Head – For use with all motors

Description	Max. RPM	SKU
Z-STX	55,000rpm	5102200



D. Contra-Angle Head – For use with M-08X and M-15X motors only

Description	Max. RPM	SKU
Z-CNX Contra-Angle Head	15,000rpm	5102250



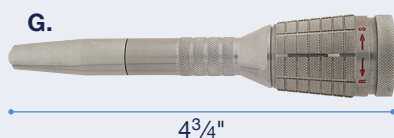
E. Right-Angle Head – For use with M-08X and M-15X motors only

Description	Max. RPM	SKU
Z-ANX Right-Angle Head	15,000rpm	5102240



F. Heavy-Duty Head – For use with all motors, except M-35X or M-55X

Description	Max. RPM	SKU
Z-HDX	30,000rpm	5102230



G. Slender Head – For use with all motors

Description	Max. RPM	SKU
Z-SLX	55,000rpm	5102220

Power Hand® 4 Profiler, Belt Sander, and Controller Specifications

Power Hand® Z-2X and Z-8X Reciprocating Profilers

Both Z-2X and Z-8X provide standard back-and-forth reciprocating action. They hold 2 to 6.35mm (¼") diameter tools. Secured tools can float freely and be fixed at any position through 360°. Z-2X has a maximum of 7,000 SPM. Z-8X has a maximum of 3,500 SPM. The Power Hand® 4 Z-2X and Z-8X work best with the Power Hand® 4 Controller but can be used with all other Power Hand® controllers with the included Power Hand® 3 Adapter.

Weight: 24oz.

Description	Stroke Length	SKU
Z-2X	0–2.0mm	5103420
Z-8X	0–8.0mm	5103430



Power Hand® BZX Belt Sander

Ideal for a wide variety of precision finishing applications. Use for deburring, and sanding flat and curved surfaces and narrowed slots. Operates with minimal vibration and has flexible power cord for easy reach. Supplied with straight and 45°-angle arms for 6 and 8mm wide abrasive belts. Arms are spring-loaded for rapid belt changes. The Power Hand® 4 BZX Belt Sander works best with the Power Hand® 4 Controller but can be used with all other Power Hand® controllers with the included Power Hand® 3 Adapter.

Weight: 16oz.

Description	Belt Speed	SKU
BZX Belt Sander	49.2–700m/min.	5103410



Power Hand® 4 Micromotor Controller

Space saving Power Hand® 4 Micromotor Controller is the 4th generation of its line and powers all Power Hand 4, Power Hand 3, and Power Hand 2 handpieces (all sold separately).

Description	SKU
Power Hand® 4 Micromotor Controller - 115V	5103401



Power Hand® 4 On/Off Foot Switch for Controller

Add an On/Off Foot Switch to your Power Hand 4® controller for easy operation.

Description	SKU
Power Hand® 4 On/Off Foot Switch	5103404



Marathon Handy 700 Brushless Micromotor System Specifications

The Handy 700 system features an advanced controller and a 50,000rpm, 230W brushless rotary handpiece for incredible power – even at low speeds! Provides ample torque at all times to ensure fast and smooth metal removal. Ideal for a variety of applications, including grinding, finishing, and polishing. 100-120V, 40W, 50/60Hz. Backed by a two-year handpiece warranty. CE approved.

Features:

- Full compatibility with Power Hand® 3 brush-type handpieces
- Dial or foot rheostat speed control
- Easy-to-read digital speed display for precise speed and torque settings
- Forward/reverse rotation
- Error-checking/troubleshooting system with overload protection

System Includes:

- Handy 700 controller
- BH-60 handpiece with cradle rest
- Variable-speed foot rheostat
- Controller Measures:
5¾"W x 9¼"D x 7¼"H



Description	SKU
Handy 700 System, 1/8" Collet	5102925
Handy 700 System, 3/32" Collet	5102920
BH-60 Handpiece with 1/8" Collet	5000224
BH-60 Motor only	5000225



Increase the versatility of your Handy 700.

BH-60 Motor Adapter

This easy-to-use motor adapter connects PH3 head attachments to the BH-60 Handpiece.

Description	SKU
BH-60 Motor Adapter	5000223

Possible Configurations



Marathon Micromotor System

Our affordable, do-it-all, Marathon rotary micromotor system performs a wide range of grinding, deburring, and polishing operations. Quick tool changes keep work flowing, increasing production, and saving you time and money. Accommodates our full line of Power Hand® 3 handpieces.



Controller Features:

- Dial speed control
- Forward/Reverse handpiece direction switch
- Motor overload cutoff switch
- Max power 90W
- Voltage selector switch: 110/220V, 50/60Hz.
- Output voltage: 0-30V DC (continuously variable)

Controller Specifications:

- Measures: 4½"W x 5¾"D x 3¾"H
- Weighs 2.6lbs.

Handpiece Specifications:

- Measures 6"L x 1" to ⅝" Diameter
- Weighs 7.5oz.

System Includes:

- Ergonomic design – fits comfortably in your hand
- Convenient quick-tool-change mechanism
- Flexible phone-type cord.
- 35,000rpm rotary handpiece with cradle rest
- Variable-speed foot rheostat
- Safety glasses

Description	SKU
Marathon System with ⅛" Collet	5102946
Marathon System with ⅜" Collet	5102956
Marathon System with 3mm Collet	5102971
Marathon Controller only	5102960
PHP35 Handpiece only with ⅛" Collet	5105144
PHP35 Handpiece only with ⅜" Collet	5105145
Variable-Speed Foot Rheostat	5102940

E-Force® Brushless Micromotor System

The E-Force Brushless Micromotor System, designed for ease of use and professional-grade performance, will meet your needs right from the start. Its innovative features, user-friendly operation, and top-level safety guarantee superior efficiency and effectiveness.



E-Force® Controller

5108000

The Controller

Sleek and simple, The E-Force controller is portable enough to go with you anywhere in the shop and compact enough to leave plenty of space when you're at your workbench.

The digital display shows the RPM speed in 1,000 RPM increments, and the load meter illuminates when the operator is using too much force.

Specifications

- Electrical: AC 100V, 50/60Hz
- Dimensions (WxDxH): 60 x 230 x 150mm (2.36" x 9" x 5.91")
- Weight: 1.95kg (4.3lbs)
- Dual input ports connect up to 2 motors



Space Saving Compact Design
½ the area of conventional models



1 LOAD Meter

- Operating load condition indicated with LED
- Continuous Load Range (Continuously operable level. Recommended use within this range.)
- Intermittent Load Range (Operable level with intermission)
- Overloaded Condition (Too much load)

2 Rotation Speed Indicator

- Operating load condition is indicated with LED

3 Rotation Speed Set Button

- Increases the rotation speed by pressing (▲) button and decreases with (▼) button

4 Motor A Button

- Turns ON/OFF Motor A.

5 Motor B Button

- Turns ON/OFF Motor B.

6 Rotation Direction Switch Button

- Switches the direction of rotation.

7 Foot Pedal Mode Select Button

- Available when the Foot Pedal (optional) is connected
- Momentary Mode: Tool rotates at the set speed when Foot Pedal is pressed
- Alternate Mode: Tool rotates at the set speed when Foot Pedal is pressed once, and stops when Foot Pedal is pressed again
- Analog Mode: Rotation speed changes according to the amount of pressing of the Foot Pedal

8 Power Switch

9 Motor A Connector

10 Motor B Connector

Description	SKU
E-Force Controller	5108000

E-Force® Solid Handpieces

The solid handpieces are the lightest and smallest handpiece in the E-Force line. They are best suited for long duration and when changing heads is not necessary. The motor casing has several air slots and a cooling fan that allows heat to escape, which helps prevent overheating. At the base of the brushless motor is a multi-function switch that will turn the motor on or off and adjust the variable speed of the brushless motor. Motor Cord measures 1.5m (just under 5 feet). 3.175mm (1/8") and 2.35mm (3/32") collets are included, while 3mm is sold separately.

20K Solid Handpiece

Operational Speed - 1,000-20,000rpm

Specifications

- Max Output 73W
- Max torque 5.0cNm
- Weight 213g (excluding Motor Cord)



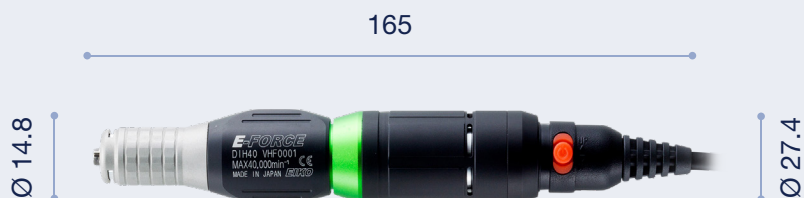
Description	SKU
20K Solid Handpiece	5108002

40K Solid Handpiece

Operational Speed - 1,000-40,000rpm

Specifications

- Max Output 84W
- Max torque 4.0cNm
- Weight 172g (excluding Motor Cord)



Description	SKU
40K Solid Handpiece	5108004

50K Solid Handpiece

Operational Speed - 1,000-50,000rpm

Specifications

- Max Output 84W
- Max torque 4.0cNm
- Weight 170g (excluding Motor Cord)



Description	SKU
50K Solid Handpiece	5108001

E-Force® Interchangeable Handpieces

With a zero plastic-full metal body design, cooling fan to prevent overheating, an easy interlock exchange for fast head changes, the interchangeable handpiece is both nimble and durable.



E-Force® 40K Motor & Interchangeable Heads

The E-Force® 40K Motor can only be used with the Interchangeable Heads featuring the red color interlock exchange (Standard, Slim, Slim Long, and Clamp Styles). Heads come with 2 Collets, 3.175mm (1/8") and 2.35 (3/32").



Operational Speed 1,000-40,000rpm

Description	Max Output	Max Torque	Weight	SKU
40K Motor	84W	40cNm	4oz.	5108040



Ultimately slim, long, straight nose. Spanner driven chucking system provides sure tool holding.

Description	Max. RPM	Weight	SKU
Standard Rotary	40,000rpm	4oz.	5108011



Ultimately slim, long, straight nose. Spanner driven chucking system provides sure tool holding.

Description	Max. RPM	Weight	SKU
Slim Rotary	40,000rpm	4oz.	5108012



Extended version of Rotary Slim model. Spanner driven chucking system provides sure tool holding.

Description	Max. RPM	Weight	SKU
Slim Long Rotary	40,000rpm	5.4oz.	5108014



Self-cooling model, applicable to automated machines and mountable to robots.

Description	Max. RPM	Weight	SKU
Lever Clamp Rotary	40,000rpm	9.8oz.	5108015

E-Force® 20K Motor & Interchangeable Heads

Incredibly versatile, the E-Force® 20K Motor can be used with all of the Interchangeable Heads regardless of color.



Operational Speed 1,000-20,000rpm

Description	Max Output	Max Torque	Weight	SKU
20K Motor	84W	40cNm	5oz.	5108020



Tools up to 6.35 available. Spanner driven chucking system provides sure tool holding.

Description	Max. RPM	Weight	SKU
6.35mm HD Rotary	20,000rpm	5oz.	5108016



Larger diameter gears improve durability from conventional models.

Description	Max. RPM	Weight	SKU
60° Angle Rotary Head	20,000rpm	4oz.	5108013
90° Angle Rotary Head	20,000rpm	4oz.	5108019



Adjustable belt angle and switchable working side. Belts, 4mm, 6mm, 8mm, wide (#120x2 #240x2 #400x2) included

Description	Max. RPM	Weight	SKU
Belt Sander	20,000rpm	8oz.	5108018

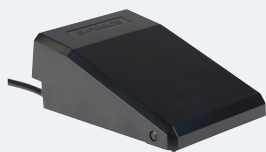


Easy-to-grip pen shaped body for high-speed polishing.
Stroke Length 1.0mm

Description	Max Strokes Per Minute	Weight	SKU
Mini Reciprocating	12,000	8oz.	5108017

E-Force® Accessories

Description	SKU
Variable Foot Pedal	5108007



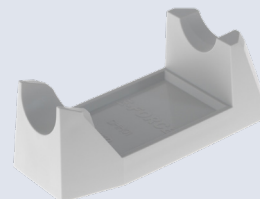
Variable speed controlled, limited only by the top RPM for the handpiece in use. Can be modified into an ON/OFF version.

Description	SKU
3 Meter Cord Extension	5108006



Provides an additional 3 meters (approx. 10 feet) of reach, for when you need to bring equipment to your workpiece.

Description	SKU
Handpiece Holder	5108008



Hard rubber, designed to keep your handpiece within reach.

Collets for Straight Heads and Handpieces



Size	3/32" (2.35mm)	3.00mm	1/8" (3.2mm)
SKU	5010100	5010106	5010105

Collets for Angle Rotary Heads



Size	3/32" (2.35mm)	3.00mm	1/8" (3.2mm)
SKU	5010132	5010133	5010134

Collets for HD Rotary Head



Size	3/32" (2.35mm)	3.00mm	1/8" (3.2mm)	6.0mm	1/4" (6.35mm)
SKU	5010103	5010101	5010104	5010107	5010108

Reducing Collets



Size	1/8" to 3/32"	1/8" to 1/16"	3mm to 3/32"	3mm to 1/16"	3/32" to 1/16"
SKU	8161501	8161502	8161504	8161505	8161503

Use the proper Reducing Collet to convert standard 1/8", 3mm, or 3/32" collet to hold a 3/32" or 1/16" tool shank.

OZ Elite & Foredom® Micromotor Systems

The OZ Elite Micromotor System

The OZ Elite Micromotor system features an advanced controller and a 50,000 rpm, 230W brushless rotary handpiece for incredible power. Ideal for a variety of applications including grinding, finishing and polishing. Made in South Korea. One-year warranty.

System includes: Controller, handpiece with $\frac{3}{32}$ " and $\frac{1}{8}$ " collet, variable speed foot rheostat, handpiece cradle rest.



Description	SKU
OZ Elite Micromotor System	5102985
Collets for OZ Elite Micromotors – $\frac{1}{8}$ "	5010124
Collets for OZ Elite Micromotors – $\frac{3}{32}$ "	5010123
Foot Pedal for the OZ Elite	5102986
Replacement Handpiece for the OZ Elite	5102987

Foredom® Brushless Micromotor System

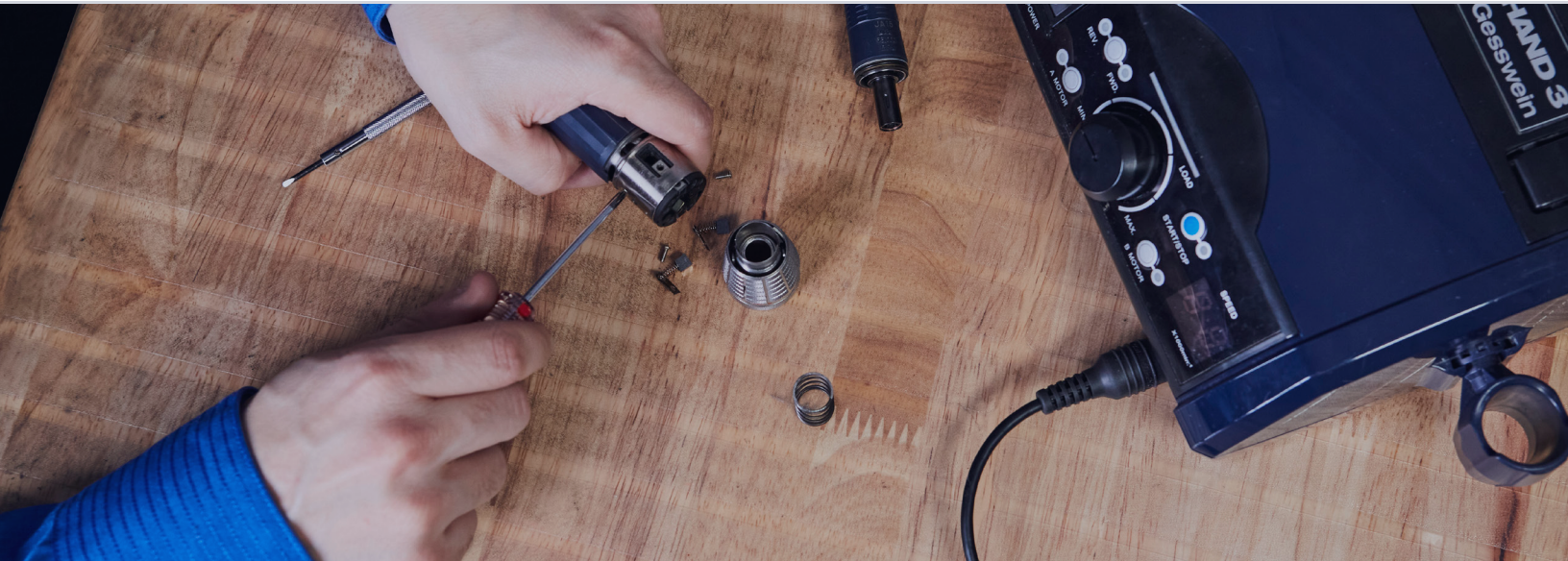
This powerful, steady, and smooth running micromotor system delivers high-torque and two speed settings for grinding, finishing, and polishing. Can be run at full speed at 50,000 rpm or between 500–5,000 rpm. The sealed plastic housing protects the controller from dust, noise and excessive vibration. Made in China.

Set Includes: Controller, brushless handpiece ($\frac{3}{32}$ " and $\frac{1}{8}$ " collets), variable-speed foot rheostat and a handpiece cradle rest and holder.



Description	SKU
Foredom Brushless Micromotor System	5102929
Handpiece for the Foredom Brushless Micromotor System	5102931
Foot Rheostat for Foredom	5102932

Service & Support



Trained Professionals

Our team of sales and service specialists are fully trained on our micromotor systems so we can give you the best quality of service.



Repair Services

We offer in-house repair services on our micromotor systems.



Preventative Maintenance

Simple recommendations are easy to follow to keep your micromotors running problem free for many years to come.



Customer Support

Warranty support for any concerns and follow up consultations are available. Reach out directly to our Micromotor Technician, Lenny Provenzano III.

