

Gesswein® POWER/HAND®3 Multifunctional Micromotor System

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 a variety of polishing applications. With the quick disconnect feature, the operator can switch heads within seconds.

Power Hand 3 is the third generation of its line and comes with several new features such as: convenient on/off switch on each motor case, higher torque output for heavier grinding, and slim lightweight handpiece cable. The Power Hand 3 controller features a load indicator light to warn operator of excessive pressure, and digital RPM display to indicate exact rotational speed of handpiece. Made in Japan.



A. POWER/HAND®3 Controller

Power Hand 3 Controller is designed for one-person use. Has 2 output stations with switch to instantly change power from one handpiece to the other. Speed can be adjusted by the dial rheostat on the face of the unit or by an optional variable speed foot rheostat (see below). Output 3-30V DC. Wgt: 5 1/4 lbs (2.3kg)

Description	Item#	Each
A. PH3 Controller, 115V	510-3300	
PH3 Controller, 230V	510-3302	

Load Indicator

8 steps of LED display from green to yellow to red. Display lights up when too much force is being applied. For 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 to ensure optimal performance.

Error Code

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

Self Diagnostic Function

PH3 Controller checks condition of motor and controller for safety reasons. When heating up, the fan inside starts automatically to reduce temperature.

Forward/Reverse button

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

PH2X Handpieces

Our previous Power Hand 2X handpieces with 3 prong plug will connect directly into the controller. RPM display, load indicator, and error code message will not be displayed.

Variable Speed Foot Rheostat (optional)

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



B, C POWER/HAND®3 Rotary Kits

Start with these money saving kits. Includes PH3 Controller and handpiece of your choice. All are 115V units.

Description	Item#	Each
PH3 Controller with 8X Handpiece	510-3390	
PH3 Controller with 15X Handpiece	510-3391	
PH3 Controller with 20X Handpiece	510-3392	
PH3 Controller with 30X Handpiece	510-3393	
PH3 Controller with 35X Handpiece	510-3394	
PH3 Controller with 55X Handpiece	510-3396	
C. Variable Speed Foot Rheostat VC90 (optional)	510-3306	

Gesswein® POWER HAND® 3 Rotary Handpieces

Choose from six sturdy, true-running, well-balanced handpieces with powerful 30V DC air-cooled motors. Enhanced motor design increases torque by 20% and improves 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 new on/off switch located

on the motor. All six handpieces are two-piece construction and can accept various Power Hand head attachments. Standard Head is included. Supplied with $\frac{3}{32}$ " and $\frac{1}{8}$ " collets, collet wrenches and replacement motor brushes. Please visit www.gesswein.com for handpiece diagram and parts list. Made in Japan.



A. High-Torque Rotary Handpieces

Designed to handle the toughest jobs. These workhorses have the highest torque rating. Available in 3 different speeds: 8,000, 15,000, and our most popular 30,000rpm. Use for hand grinding, heavy deburring, cutting, polishing and finishing all types of material. Supplied with $\frac{3}{32}$ " and $\frac{1}{8}$ " collets. Weight 9.74 oz.

Description	Speed	Torque	Item#	Each
08X	1,000–8,000rpm	9.8	510-3310	
15X	1,000–15,000rpm	8.8	510-3320	
30X	1,000–30,000rpm	6.8	510-3340	



B. Standard Rotary Handpieces

These handpieces are smaller and lighter 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. Available in 20,000 and 35,000rpm. Supplied with $\frac{3}{32}$ " and $\frac{1}{8}$ " collets. Weight 7.76 oz.

Description	Speed	Torque	Item#	Each
20X	1,000–20,000rpm	6.4	510-3330	
35X	1,000–35,000rpm	5.4	510-3350	



C. High Speed Rotary Handpiece

The lightest, fastest and most comfortable of our straight rotary handpieces. This 55,000rpm handpiece is a great choice for tools that perform at high speeds. Use for precision work. Supplied with $\frac{3}{32}$ " and $\frac{1}{8}$ " collets. Weight 6.70 oz.

Description	Speed	Torque	Item#	Each
55X	1,000–55,000rpm	3.6	510-3370	

Optional Heads



Mini Filer Head
#510-2266 p. 426
#510-2264 p. 426
#510-2265 p. 426



SZX Swing Head
#510-2256 p. 426



Contra Angle Head 120°
#510-2250 p. 427



Right Angle Head 90°
#510-2240 p. 427



Heavy-Duty Head
#510-2230 p. 426



Slender Head
#510-2220 p. 426



Standard Head
#510-2200 p. 426



Contra Angle Head 120°
#510-2250 p. 427



Right Angle Head 90°
#510-2240 p. 427



Heavy-Duty Head
#510-2230 p. 426



Slender Head
#510-2220 p. 426



Standard Head
#510-2200 p. 426

Create your own handpiece!

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. Use the system configuration chart to determine what heads and motors can be used together. Note: Lower RPM motors have more available head options, while higher RPM motors are limited to either the Slender Head or Standard Head configurations.



Slender Head
#510-2220 p. 426



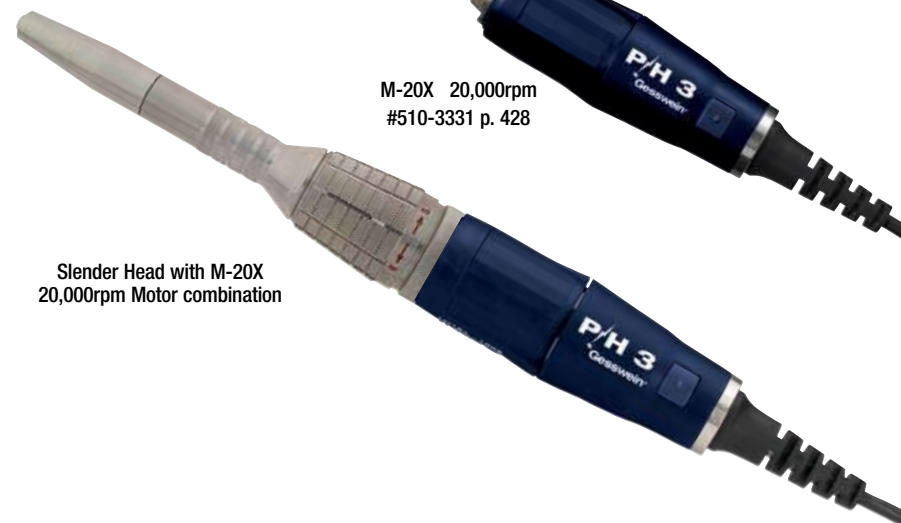
Heavy-Duty Head
#510-2230 p. 426



Slender Head
#510-2220 p. 426



Standard Head
#510-2200 p. 426



M-20X 20,000rpm
#510-3331 p. 428



Slender Head
#510-2220 p. 426



Standard Head
#510-2200 p. 426



Slender Head
#510-2220 p. 426



Standard Head
#510-2200 p. 426

& Motors System Configuration Chart

Motors

Controllers

M-08X 8,000rpm
#510-3311 p. 428



M-15X 15,000rpm
#510-3321 p. 428



M-20X 20,000rpm
#510-3331 p. 428



M-30X 30,000rpm
#510-3341 p. 428



M-35X 35,000rpm
#510-3351 p. 428



M-55X 55,000rpm
#510-3371 p. 428



PH3 Controller
#510-3300 p. 422



PH2X Dual Controller
(no longer available)



PH3 Adapter
#510-3304 p. 435
(for connecting PH3 handpieces to PH2X
controllers and Ultramax DF)



PH2X Standard Controller
(no longer available)

Gesswein® POWER HAND®3 Head Attachments

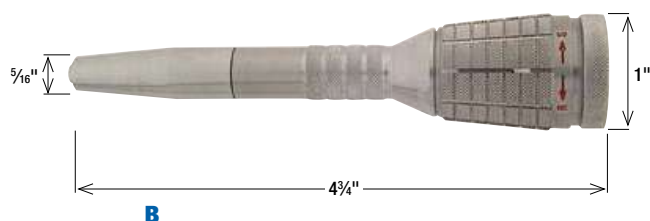
These Power Hand head attachments will connect to PH3 motors and to the previous version PH2X motors. See System configuration chart on pages 424-425 to select the right head attachment for each motor. Be sure not to exceed the maximum RPM for each head attachment.



A. Standard Head – Provided with all PH3 Rotary Handpieces

This all-purpose rotary head is compatible with all motor assemblies. Supplied with a 3/32 inch collet; 1/8 inch and 3mm collets also available (see p. 434).

Description	Max. RPM	Item#	Each
Z-STX	55,000	510-2200	



B. Slender Head – For access into deep ribs and holes

Pencil-like design only 3/8 inch (9.0mm) in diameter at the finger grips gives 1 9/16 inch (40mm) more reach than a standard rotary head. Ideal for intricate, deep, hard-to-reach cavities and delicate areas. Compatible with all motor assemblies. Supplied with a 1/8 inch collet; 3/32 inch and 3mm collets also available (see p. 434).

Description	Max. RPM	Item#	Each
Z-SLX	55,000	510-2220	



C. Heavy-Duty Head – For use with 1/4 inch shanked tools

Use with large tools through 1/4 inch shank for greater stock removal. Compatible with M-08X, M-15X and M-30X motors. Supplied with a 1/4 inch collet; 3/32 inch, 1/8 inch and 6.0mm collets also available (see p. 434).

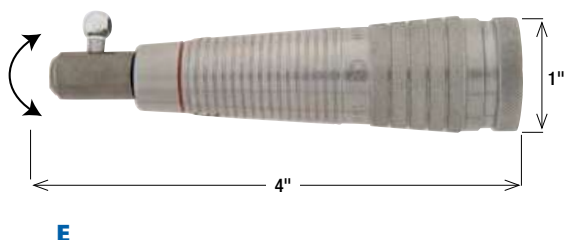
Description	Max. RPM	Item#	Each
Z-HDX	30,000	510-2230	



D. Mini Filer Heads – Reciprocating head

Mini filer heads for lightweight profiling. Slim nose design allows polishing and finishing of narrow, confined spaces. Choose from three stroke lengths. All models hold tools up to 3.5mm diameter (such as Diamond Tips on p. 109). For best results, use with M-08X motor.

Fixed Stroke Length	Max. Strokes /Min.	Item#	Each
0.5mm	12,000	510-2266	
1.0mm	12,000	510-2264	
1.5mm	12,000	510-2265	



E. SZX Swing Head – For side to side stroke

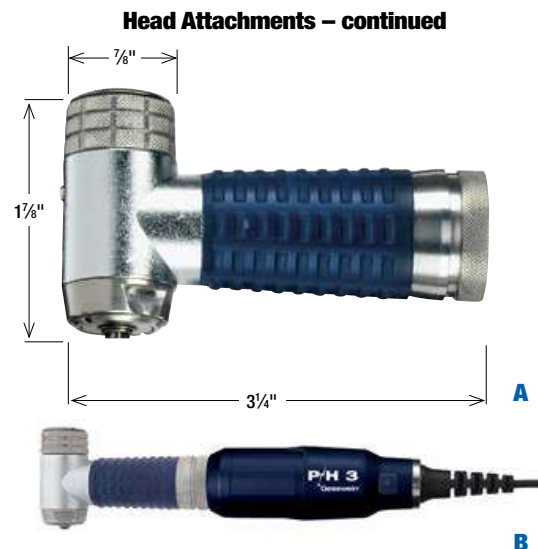
This head is identical to that on our SZX Profiler. It gives a unique side-to-side reciprocating action with a stroke that is easily adjustable. It's perfect for polishing base areas in deep cavities, corners and deep slots and helps eliminate rounding of sharp corners. Prevents bottoming out in blind holes. Holds 1.5 to 5mm (3/16 inch) diameter tools. Use on M08X motor assembly only.

Description	Max. Strokes /Min.	Item#	Each
SZX	8,000	510-2256	

A, B Right-Angle Head

This 90° Angle Head provides more comfortable usage than a straight handpiece in some applications. Available in a money saving kit with the M-15X motor or sold alone to use with either the M-08X or M-15X motors (see p. 428). Employs double spur gear that provides durable power. Supplied with 3mm and 1/8" collets; 3/32" collet also available. Equipped with quick-tool-change feature.

Description	Max. RPM	Item#	Each
A. Z-ANX Right-Angle Head (90°)	15,000	510-2240	
B. Z-ANX + M-15X Handpiece Kit		510-3360	



C, D Contra-Angle Head

This 120° Angle Head's unique shape provides more comfortable usage than a straight handpiece in some applications. Available in a money saving kit with the M-15X motor or sold alone to use with either the M-08X or M-15X motors (see p. 428). Employs double spur gear that provides durable power. Supplied with 3mm and 1/8" collets; 3/32" collet also available. Equipped with quick-tool-change feature.

Description	Max. RPM	Item#	Each
C. Z-CNX Contra-Angle Head (120°)	15,000	510-2250	
D. Z-CNX + M-15X Handpiece Kit		510-3361	



E-G Disc Holders for Angle Rotaries – 3mm shank

Specially designed for Power Hand angle handpieces and head attachments. Shanks machined to precise dimensions to reduce vibration. Made of soft rubber to work well on flat or contoured surfaces. Precisely made to hold precut abrasive and felt discs. Or use your own abrasives cut to size, such as diamond foil, diamond sheet or diamond film (see p. 114).

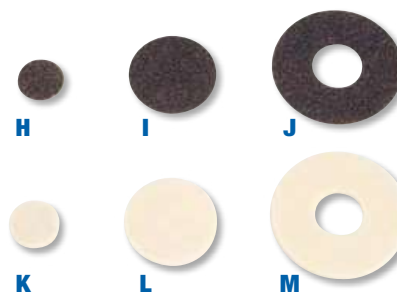
Size	Item#	Each
E. 11mm round	510-0260	
F. 21mm round	510-0265	
G. 31mm round	510-0270	



G-L Sandpaper and Felt Discs for Angle Rotaries

Precut to fit our disc holders, these discs have pressure-sensitive adhesive backing. Use sandpaper for rough through intermediate finish; use felt for final finish of metal surfaces.

Sandpaper Discs	80 Grit Item#	120 Grit Item#	180 Grit Item#	320 Grit Item#	Pkg. of 10
H. 11mm round	510-0600	510-0605	510-0610	510-0615	
I. 21mm round	510-0620	510-0625	510-0630	510-0635	
J. 31mm round	510-0640	510-0645	510-0650	510-0655	
Felt Discs	Item#				Pkg. of 10
K. 11mm round	510-0245				
L. 21mm round	510-0250				
M. 31mm round	510-0255				

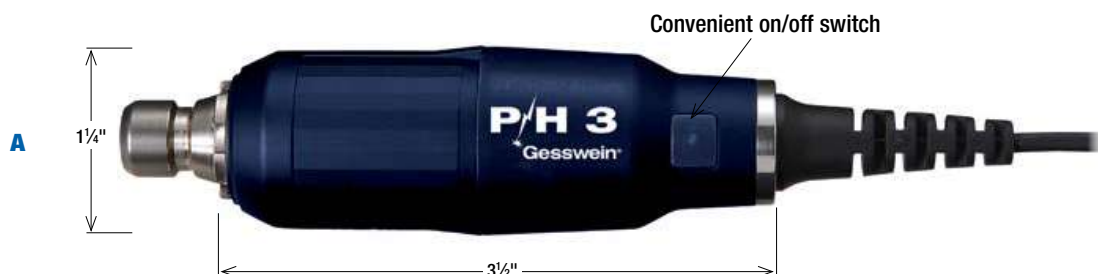


Gesswein® POWER HAND® 3 Motors

Purchase a motor separately to construct your own Power Hand 3 handpiece. Power Hand 3 motors accept all Power Hand head attachments on pages 424, 426-427. Please refer to the maximum rpm speed of the head attachment when pairing with motors. All motors feature a new and convenient on/off switch. RPM speed is indicated on the motor casings. Supplied with a pair of replacement motor brushes.



Motors accept head attachments found on pages 426-427.
See System Configuration Chart on pages 424-425.



A. High-Torque Motors

For heavy grinding applications where high torque is required. When selecting a head attachment, please refer to the maximum rpm speed of the head attachment (see pp. 426-427). Weight 6.2 oz.

Description	Speed	Max. Torque (Ncm)	Item#	Each
M-08X	1,000–8,000rpm	9.8	510-3311	
M-15X	1,000–15,000rpm	8.8	510-3321	
M-30X	1,000–30,000rpm	6.8	510-3341	



B. Standard Motors

Small, lightweight motors for general purpose finishing. Fits comfortably in hand. For use with Standard Head and Slender Head attachments only (see p. 426). Weight 4.25 oz.

Description	Speed	Max. Torque (Ncm)	Item#	Each
M-20X	1,000–20,000rpm	6.4	510-3331	
M-35X	1,000–35,000rpm	5.4	510-3351	



C. High-Speed Motor

The lightest, fastest, and most comfortable high-speed motor. For use with Standard Head and Slender Head attachments only (see p. 426). Weight 3.2 oz.

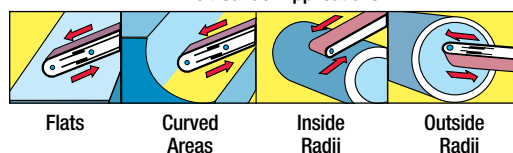
Description	Speed	Max. Torque (Ncm)	Item#	Each
M-55X	1,000–55,000rpm	3.6	510-3371	

Gesswein® POWER HAND® BZX Belt Sander

Ideal for a wide variety of precision finishing applications. Use for deburring, removing EDM and machine tool marks and sanding flat and curved surfaces and narrow 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. Weighs 16 oz.

Description	Item#	Each
A. BZX Belt Sander w/2 arms	510-2131	
B. Optional Straight Arm (for 4mm belts)	510-0494	
C. Replacement 45°-Angle Arm (for 6 and 8mm belts)	510-0495	
D. Replacement Straight Arm (for 6 and 8mm belts)	510-0496	
BZX Belt Sander with PH3 Controller - 115V	510-3400	

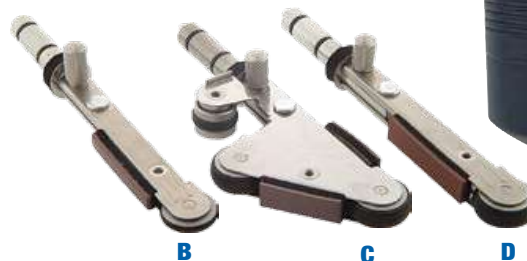
BZX Belt Sander Applications



E. Sanding Belts for BZX

Aluminum oxide abrasive belts specially made for use with our Power Hand BZX Belt Sander. Belts fit on either straight or 45°-angle arms.

Size	80 Grit Item#	120 Grit Item#	180 Grit Item#	320 Grit Item#	Pkg. of 10
4mm	510-0501	510-0506	510-0511	510-0517	1-2
6mm	510-0521	510-0526	510-0528	510-0532	3+
8mm	510-0536	510-0541	510-0546	510-0552	

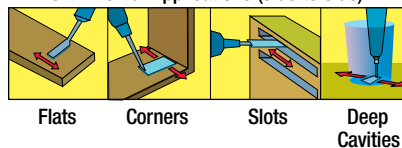


Gesswein® POWER HAND® 3 SZX Side-to-Side Profiler

Provides unique side-to-side reciprocating action with adjustable stroke (up to 133 strokes per second). Length of stroke ranges from 0 – 1.6mm (increases with tool length). Perfect for polishing base areas in deep cavities, corners and deep slots. Helps eliminate rounding of sharp corners. Prevents bottoming out in blind holes. Weighs 13 oz. Special V-shaped chucking system firmly secures 1.5 to 5mm (3/16") diameter tools. Sold individually or as a set with Power Hand 3 controller 510-3300.

Description	Item#	Each
F. SZX Profiler	510-3309	
SZX Profiler with PH3 Controller - 115V	510-3389	

SZX Profiler Applications (side to side)



Safety Recommendations – For Z-2X, Z-6X and SZX Profilers.

Prolonged use of vibrating or reciprocating tools may result in vibration-induced circulation problems in the hands. Always follow safe operating procedures. Using hand protection (i.e., insulated gloves) and taking frequent breaks can help minimize but not guarantee against injury. Operating these types of tools in cold weather or with a tight grip will reduce the period of operation before risking potential injury. Individuals with a tendency to suffer from poor circulation, frequently cold fingers or itchy hands should closely monitor the condition of their hands. If symptoms appear, seek medical advice immediately.

Gesswein® POWER HAND® Reciprocating Profilers

These light (24 oz.) reciprocating handpieces come complete with powerful 30V DC air-cooled motors and sealed bearings. Use for polishing flat surfaces, deburring, filing, stoning, scraping, lapping and draw-stoning deep cavities. They operate with minimal vibrations to reduce fatigue and have flexible power cords for easy reach. Special V-shaped chucking system firmly secures a wide variety of abrasives and other tools (see p. 311 for steel files). Reciprocating stroke lengths are adjustable. Use with PH3 controller or PH2X controller, as well as ULTRAMAX DF and ULTRAMAX MF.



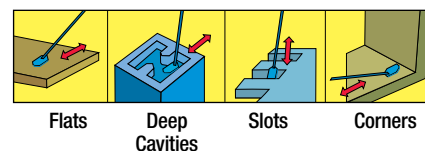
A

A. Z-2X and Z-6X Reciprocating Profilers

Both Z-2X and Z-6X provide standard back-and-forth reciprocating action. Z-2X has a 0-2.0mm length of stroke with a variable strokes per second rate up to 117. Z-6X has a 0-6.0mm length of stroke with a variable strokes per second rate up to 70. They hold 1.5 to 6.35mm (1/4") diameter tools. Secured tools can float freely and be fixed at any position through 360°. Comfortable grips allow prolonged use. See below for tool holders.

Description	Item#	Each
A. Z-2X	510-2150	
Z-6X	510-2160	
Z-2X with PH3 Controller - 115V	510-3397	
Z-6X with PH3 Controller - 115V	510-3398	

Z-2X and Z-6X Recipro Applications (back and forth)



B



C



B, C Tool Holders for Z-2X, Z-6X and SZX

These 3mm shank holders are designed to hold precut PSA felt and sandpaper pads (see below) to make your reciprocating handpieces more versatile. You can cut your own abrasives, such as diamond foil and diamond film (see p. 114), to fit the holder pads.

Style	Dimensions (mm)	Item#	Each
B. Fixed Holder	10 x 20 x 40	510-0560	
	10 x 20 x 65	510-0410	
C. Free Holder with 180° swivel	10 x 20 x 80	510-0420	

D



E



D, E PSA Sandpaper and Felt Pads

Precut waterproof SiC sandpaper pads, 10 x 20mm, with pressure-sensitive adhesive backing. Precut PSA felt pads can be charged with diamond compound. Excellent for use on flat surfaces. For use with Z-2X, Z-6X and SZX handpiece holders (see above).

Description	Grit	Item#	Pkg. of 10
D. Sandpaper Pad	180	510-0200	
	240	510-0210	
	320	510-0220	
	400	510-0230	
	600	510-0240	
E. Felt Pad	—	510-0300	

Micromotor Drive Mark II Di-Profilers

Connect to any Power Hand Controller

Gesswein is proud to offer the NEW Di-Profiler Mark II systems—the most advanced handpiece systems yet. The Professional and Classic MM Drive Di-Profilers are built with a micromotor inside every handpiece and can connect directly to any Gesswein Power Hand controller. Both Professional and Classic Mark II models now incorporate the protective finger sleeve into the handpiece. Made in Sweden.

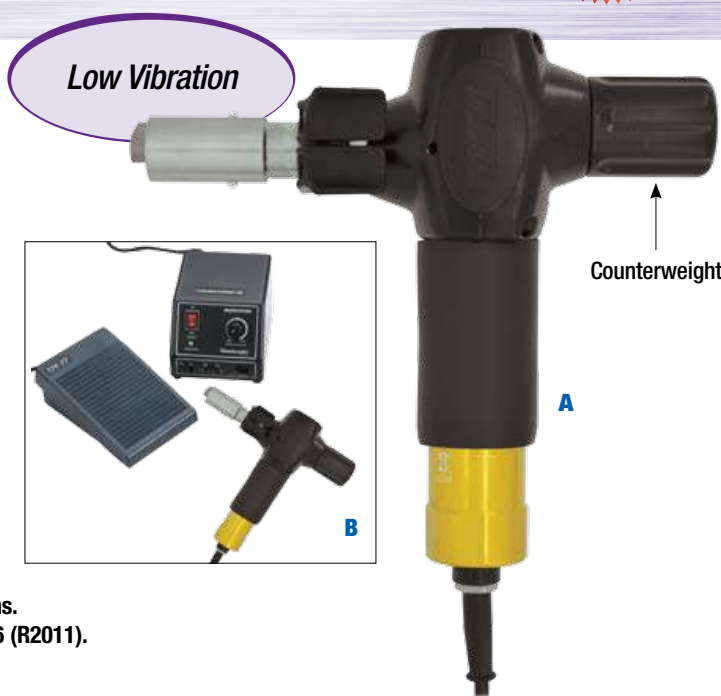


A, B Professional Micromotor Drive Di-Profiler, Mark II Maximum Efficiency, Minimal Vibrations

Simply the best reciprocating handpiece in the market today, the Professional Di-Profiler combines ergonomic design and heavy duty power. A counter balance weight system located on the opposite end of the tool holder reduces vibration levels. As the tool reciprocates, the counter balance weight reciprocates in the opposite direction thereby stabilizing the handpiece. As a result, vibration in the user's hand is greatly reduced. Comes complete with operations guide, rubber sleeve, storage case, wrench and lubricating oil. Adjustable stroke length 0-6mm. 8,000rpm maximum.

Description	Item#	Each
A. Professional Micromotor Di-Profiler 1/4" chuck capacity	850-1908	
B. Complete Kit (Includes Professional Di-Profiler 1/4" chuck capacity, Marathon controller and variable speed foot rheostat)	850-1942	

Operation Guide is included with profiler for safety and operating instructions.
For information on hand transmitted vibration see ANSI Standard S2.70 2006 (R2011).



C, D Classic Micromotor Drive Di-Profiler

Comes complete with operations guide, rubber sleeve, storage case, wrench and lubricating oil. Adjustable stroke length 0-6mm. 8,000rpm maximum.

Description	Item#	Each
C. Classic Micromotor Di-Profiler 1/4" chuck capacity	850-1915	
D. Complete Kit (Includes Classic Micromotor Di-Profiler 1/4" chuck capacity, Marathon controller and variable speed rheostat)	850-1947	

Operation Guide is included with profiler for safety and operating instructions.
For information on hand transmitted vibration see ANSI Standard S2.70 2006 (R2011).



Safety Recommendations – For all Reciprocating Profilers

Prolonged use of vibrating or reciprocating tools may result in vibration-induced circulation problems in the hands. Always follow safe operating procedures. Using hand protection (i.e., insulated gloves) and taking frequent breaks can help minimize but not guarantee against injury. Operating these types of tools in cold weather or with a tight grip will reduce the period of operation before risking potential injury. Individuals with a tendency to suffer from poor circulation, frequently cold fingers or itchy hands should closely monitor the condition of their hands. If symptoms appear, seek medical advice immediately.