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WARNING!
(Risk of injury)

ATTENTION!
(To prevent damage)

General explanations,
without risk to persons or objects

Thermal washer
disinfectable

Sterilizable
up to the stated
temperature

Before You Begin

Please read this Manual prior to using your Maxso Highspeed Handpiece. The use of this product is only intended for use by trained dental personnel. We recommend that you retain this manual for future reference.

Safety Information

- High speed handpieces should be sterilized after each patient to prevent any transmission of infective organisms.
- Suitable hygienic measures must be taken to prevent cross contamination between patients, operators and other personnel.
- Only operate this highspeed handpiece when the bur is properly inserted in the chuck. Do not attempt to extend the length of the bur by improper positioning in the chuck.

Technical Specifications

		Standard Head (S)	Mini Head (M)
Rotary instruments	EN ISO 1797-1(0mm)	1,6-0,01	1,6-0,01
Idle mode speed	(rpm)	350,000-360,000	380,000-410,000
Coolant supply volume	(ml/min)	>50	>50
Water setting range	(bar)	0.7-2	0.7-2
Chip air setting range	(bar)	1.5-3	1.5-3
Return air pressure	(bar)	<0.5	<0.5
Operating pressure	(bar)	2.62-2.90	2.62-2.90
Air consumption	(NL/min)	30-45	30-45
Chip air consumption at 2 bar	(NL/min)	>1.5	>1.5
Power/Torque	(watt)	23	21

Assembly & Removal

This handpiece should only be used on dental delivery systems that provide filtered and regulated air and water. Filtration of 25 microns is recommended.

Ez-Swivel PD Coupling (Fig. 1.1)

1. Ensure PD coupling is firmly attached to the handpiece tubing
2. Align PD coupling into handpiece and push together
3. Ensure handpiece is firmly attached to coupling
4. Pull the retention sleeve of the PD coupling back and remove the turbine handpiece by pulling in an axial direction

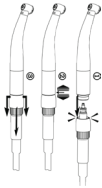


Fig. 1.1

Other Approved Manufacturer’s Couplings (Fig. 1.2)

Connection: Refer to original manufacturer's instruction for use. (Do NOT use unapproved couplings)

1. Attach the turbine handpiece to the Kavo®, NSK®, W&H® and Star® coupling as described by the coupling manufacturer
2. Check that the connection to the coupling is secure.
3. Remove the Kavo®, NSK®, W&H® and Star® coupling as described by the coupling manufacturer.



Fig. 1.2

Do not assemble/remove during operation!

Water & Air Adjustment

Coolant Water: Adjust the water volume at the delivery unit to obtain a satisfactory spray mist.

Air Pressure: The operating pressure Must be 2.62 bar to 2.90 bar, and recommendation is 2.76 bar. It is highly recommended that the operating pressure initially be set using a handpiece pressure gauge due to the pressure loss caused by the handpiece tubing material and length.

Warning: Do not exceed 3.52 bar operating pressure as this will shorten turbine life and may cause additional damage to the handpiece.

Handpiece Operation

Use standard length concentric diamond and carbide burs with 1.59mm nominal diameter friction grip shanks designed for high speed handpieces.

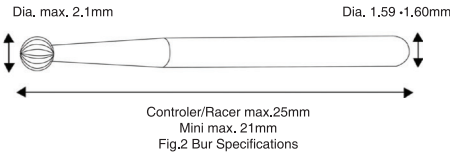
Use only burs with hardened tempered steel shanks. Before use, verify concentric rotation by operating handpiece outside the or alcavity in a safe place.

Warning: Do not use burs that produce excessive noise or do not run concentrically. Do not use burs that are modified, eccentrically designed, or have bent or ‘soft’ (nonheat treated) shanks.

Friction Grip Bur Specifications

For application details and operating data of the different rotary instruments please refer to the information provided by the manufacturer. The push button autochuck turbines have the following bur requirements:

Use only instruments whose shanks comply with the requirements of ISO 1797-1.



- Shank diameter of 1.59—1.60mm
- Overall length up to max. 25mm
- Overall length up to max. 21mm (mini)
- Working diameter up to max. 2.1mm (ISO 021)

Instruments that differ from the specified data must not be used. Otherwise the mechanism of the clamping system could be damaged.

Bur Insertion (Fig.3)

1. Insert bur into autochuck until resistance is felt.
2. Depress the autochuck end cap button and continue to feed-in the bur until it clicks and stops.
3. Release the autochuck end cap button. (Always pull on the bur after it has been installed to confirm that it is seated properly).
4. Never depress the autochuck end cap when the bur is rotating.

Use only faultless burs and diamonds.

These must be clean to prevent dirt from being transferred into the chuck.

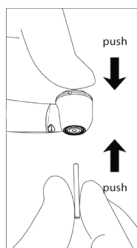


Fig. 3

Bur Removal (Fig.4)

1. Grasp handpiece firmly so your thumb touches the end cap of the autochuck and push until a slight 'click' is noticed.
2. Pull bur straight out.
3. Release end cap.



Never depress the autochuck end cap button or rest the end cap against any part of the oral cavity during operation. Depressing the end cap while a bur is rotating can activate the chuck mechanism and result in the end cap button with excessive heat and / or loss of bur retention.

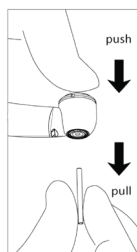


Fig. 4

External Cleaning

Fiber Optic Rod

Clean the Fiber Optic Rod using isopropyl alcohol or other disinfection agents. Super soft cleaning cloth must be used. Never use a cleaning agent that has an ammonium, chlorine, or acid base. (Fig.5.1)

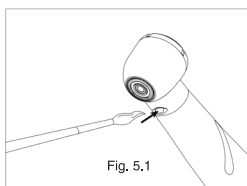


Fig. 5.1

External Surface

Clean debris from the external surface by using isopropyl alcohol or other disinfecting agents. Never use a cleaning agent that has an ammonium, chlorine, or acid base. Dry thoroughly. Never immerse the handpiece in disinfection baths. Improper care and maintenance may lead to a premature wear and failure of the handpiece. (Fig.5.2)



Fig. 5.2

Lubrication

Chuck System Lubrication (Fig.6)

1. Fit the spray nozzle onto the spray can
2. Grip the handpiece firmly
3. Press the tip of the spray nozzle firmly into the chuck system
4. Spray about 1 second
5. Push the button three times

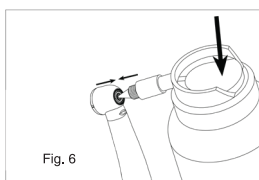


Fig. 6

Handpiece Lubrication (Turbine)

- After internal cleaning
- Prior Sterilization
- After 30 minutes of use or at least once daily

Purging

Connect handpiece to tubing and run handpiece for 20-30 seconds to purge remaining lubricant.

Automatic Handpiece Lubrication

After cleaning the handpiece simply connect the handpiece to the correct adaptor and activate the Lubrication System according to the manufacturer's system instructions.

Manual Lubrication (Fig.7)

After cleaning the handpiece apply lubricant BEFORE sterilization

1. Use only a high quality lubricant such as Beyes Lube.
2. Ensure the correct application nozzle is connected to the plastic valve at the top of the spray can.
3. Firmly insert the application nozzle into the rear of the handpiece
4. Spray for 2-3 seconds
5. Wipe any excess lubricant from the handpiece.

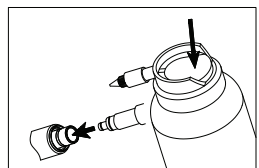


Fig. 7

Packing



Place the handpiece in a sterilization pouch.

Sterilization

Following your country specific directives, standard and guidelines

- Steam sterilization class B (pre and post vacuum) with sterilizers in accordance with EN 13060.

OR

- Steam sterilization class S with sterilizers in accordance with EN 13060

The sterilizer manufacturer must give the express approval for the sterilization of turbine handpieces.



An unwrapped handpiece needs to be used immediately or sterility is not maintained.



Do not exceed the sterilizer manufacturer's guidelines for load capacity.



Use steam sterilization exclusively for complete sterility. Never dry heat sterilize, ultrasonically clean, or expose handpiece or swivel to chemical disinfection or cold sterilization.

Limited Warranty

Beyes Dental Canada hereby warrants against defect in material and workmanship that for a period of 12 months (six months for turbine) from the date of purchase, this product will perform satisfactorily under normal use and service. No warranty claim can be inferred here, as wear may occur earlier or later than indicated above depending on use, frequency of sterilization and frequency of maintenance. Beyes shall under no circumstances be liable for incidental or consequential damages or damage due to improper use or maintenance.

This Warranty is subject to the following conditions

Beyes will, without charge repair or replace (at Beyes sole discretion) any defective part/s covered in this warranty. If the conditions are met, the defective item must be returned to an authorized Beyes service center or distributor. Accompanied by the original invoice or packing list. This warranty is in lieu of all other warranties, expressed or implied.

* This device is not field repairable

* All brands are holders of their respective trademarks.



Federal law restricts this device to sale by or on the order of a dentist, physician, or any other practitioner licensed by the law of the states in which he or she practices to use or order the use of this device.

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