

90.00 mm

60.00 mm

High-speed air turbine handpieces

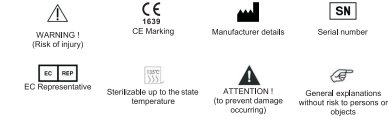
Operation Manual

[Model, Specifications] Table 1.

Table 1 Basic Parameter					
Model	Air pressure at connector kPa	Air pressure at dental unit kPa	Atomized air pressure kPa	Atomized water pressure kPa	Applicable bur mm
201A1	220-250	300-340			
201A2	220-250	300-340			
201A3	220-250	300-340			
201A4	220-250	300-340			
201A5	220-250	300-340			
201A6	220-250	300-340			
201A7	220-250	300-340			
201A8	220-250	300-340			
201B1	220-250	300-340			
201B2	220-250	300-340			
201B3	220-250	300-340			
201B4	220-250	300-340			
201C1	220-250	300-340			
201C2	220-250	300-340			
201C3	220-250	300-340			
201C4	220-250	300-340			
201C5	220-250	300-340			
201C6	220-250	300-340			
201C7	220-250	300-340	200	200	ø1.595- ø1.605
201D1	220-250	300-340			
201D2	220-250	300-340			
201D3	220-250	300-340			
201D4	220-250	300-340			
201E1	220-250	300-340			
201E2	220-250	300-340			
201E3	220-250	300-340			
201E4	220-250	300-340			
201E5	220-250	300-340			
201E6	220-250	300-340			
201E7	220-250	300-340			
201E8	220-250	300-340			
201E9	220-250	300-340			
201G1	220-250	300-340			
201G2	220-250	300-340			
201H1	220-250	300-340			
201H2	220-250	300-340			

Symbol explanation

In order to let the user get the key point from this instruction simply, there are a lot of symbols appearing



[Before you begin]

Intended use:

Rotary processing of tooth substance and dental prostheses (crowns, inlays, bridges, etc.) by trained dental professionals.

Contraindications:

The handpiece must not be used on patients who have soft-tissue injury in their oral cavity.

Target group:

This product is intended only for use by trained dental personnel.

Service life of this instrument

The lifespan of Handpiece is 2 years.

[Product Property]

Property of high-speed air turbine handpiece conform to "Technical requirements of high-speed turbine".

1. Chuck
 - Chuck must be applicable shank corresponding to ISO 1797 Norms. Allowable maximum overall length of rotary instruments is 32mm and shank diameter is 1.595-1.605mm.
2. Bur blank radially vibrate less than 0.03mm.
2. Technical Data
 - 1) Rotation speed no loading: 160 000 ~ 450 000 r/min
 - 2) Brake torque not less than 0.05N·cm.
 - 3. Water and chip air supply
 - 1) When operating, handpiece can supply cooling water.
 - 2) When air pressure 200kPa (2.0bar), water flow rate not less than 50mL/min
 - 3) When air pressure 200kPa (2.0bar), air flow rate not less than 1.5L/min.
 - 4. Connector of handpiece

1

2) The product shall be disposed of in accordance with local laws and regulations at the end of its life.

Warning:

- Dental high-speed air turbine should not be close to other devices or stacked use, if must be close to or stacked use, should be observed in the use of its configuration to verify the normal operation;

1) Screw inserting & removal

1) Screw type

- Pull the rod of Bur Key, place it on handpiece head(Fig.1), release the rod and lock at hole of shaft, turn the rod in anti-clockwise direction (Fig.2). Avoiding to turn over (4 round) .
- Insert bur and Turn the rod in clockwise direction(Fig.3) . Bur must insert as far as it can go, otherwise it will lead to bearing premature wear.
- Forbid operating handpiece without bur or bur blank, avoid to bearing damaged.

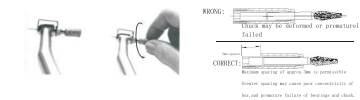


Fig.1

Fig.2

Fig.3

Fig.4

After bur stop, press the push button firmly and remove the bur (Fig.4)



Fig.4

Press the push button firmly and Insert the bur in the segment of the rear of the head as far as it will go by turning it gently. (Fig.4)

Often checking bur when long time using.

2) Cartridge Replacement

1) Removal

Insert bur blank into handpiece, use key to open back cap, push bur blank to remove out cartridge. (Fig.5)

2) Installation

3

Place cartridge into head of handpiece and the pinlocking lugs aim at the slot on head of handpiece, screw the back cap tightly. (Fig.6)

Notes:

- The thread on back cap is too tiny, please screw it gently.

• Please use quality cartridge.



Fig.5

Fig.6

3. Connector to handpiece tube

Connect air inlet/outlet pipe (chip air pipe, water pipe, pins) on connector to handpiece tube, then screw tightly.

4. Handpiece connecting to coupling (201C7 201E3 201E6 201E9 201H1 201H2 applicable)

- 1) Removal: Grip both handpiece and motor respectively, pulling and separating
 - 2) Inserting: Insert the handpiece into the coupling and turning all the way until it click to stop.
 5. Water rate adjustment by coupling (201C1 201G2 applicable)
- When the two points is in one line, the rate is maximum, turn adjustment ring in direction of arrow, the rate will reduce until end. (Fig.7)



Fig.7

[Clean and sterilize]

After each treatment, sterilizing handpiece in autoclave according to the following steps:

1. Pretreatment
 - 1) After each treatment, wipe up any visible stains on the surface of the phone with a wet cotton ball.
 - 2) Remove the bur and motor
 - 3) Put the handpiece in the recycling container of the contaminated equipment in the clinic.

The pretreatment need to be done after the treatment is finished immediately. Convenient for subsequent cleaning.

2) Cleaning

Manual external cleaning

- The handpieces is reusable device, clean is recommended to perform manually
- 1) Place the handpiece in the flowing water for 1min to remove the surface contaminants.
 - 2) Soak in distilled water for 2-5 minutes and then use the cleaning line to clean the nozzle and wet cotton balls to scrub the dismantled part for 5 times.
 - 3) Use syringe to inject 35ml flowing water into the cavity for each time, repeat inject flowing water for 8 times.
 - 4) Rinse the handpiece with distilled water for 2-5 minutes.
 - 5) Use syringe to inject 35ml 75% ethanol into the cavity of the handpiece for each time, repeat inject 75% ethanol for 8 times. Clean the external surface of the handpiece three (3) times with gauze soaked in 75% alcohol.
 - 6) Use the rubber suction bulb to squeeze air and blow dry the surface of handpiece. With the surface does not have clear water bead is accurate.

4

The structure, measurement and tolerance of back end of handpiece conform to ISO 9168 Norm.

5. Air pressure

When air pressure is over 50% of pressure in table 1. Handpiece should be well and no damaged.

6. Noise

Noise should be not less than 80dB.

7. Corrosion resistance

There is not corrosion after norms sterilization cycle.

8. Sterilization

Handpiece can endure sterilization temperature at least 135°C, time 15 minutes, 250 cycles, no damage.

[Main structure]

High-speed air turbine handpiece composes of chuck, bur blank and grip

[Notes & Cautions]

- Ensure that handpiece are only used for oral prevention and treatment, any other use is strictly forbidden.
- High-speed rotation avoiding injury and infection.
- Only to be used by a qualified dental practitioner.
- Before using, please check bur and function of the chuck at outside of oral cavity of patients, if loose, too much vibration, irregular noise and too much heating up etc, please do not carry on.
 - Anytime, any unusual cases occurred, please do not carry on, please contact our authorized office.
- The damaged cartridge may result in high noise, it will damage your hearing when long time using.
 - Please use standard bur. The bent, damaged, flawed and no standard bur may result in "BUR-WALK-OUT" and/or injury.
 - Using no standard bur result in damage to the ball bearing too.
 - Please check chuck clean, if the grease or foreign particles get inside, it may cause vibration, weak chucking power, or other abnormalities.
 - Please drain air compressor to ensure handpiece operation well.
 - Ensure to use correct bur as stated in the manufacturer instructions.
 - Please insert bur when handpiece is not in use.
 - do not insert or remove bur while the bur is in motion.
 - Forbidding disassembling or conversion.
 - Avoiding crash and drop.
 - Environmental Protection

- 1) When the doctor has finished treating the patient, put the used waste water and waste on the same day, and place the waste and residue on the designated medical waste area of the local hospital.

2

Automatic cleaning not applicable.

Disinfection not applicable.

3 Put into sterilizing pouch

Put the handpiece which had been cleaned into 57*130 mm sterilization pouch (materials: Medical high-temperature dryable paper and medical OPP/PET complex film) and use the special double-rolled tape come with the sterilization pouch to seal it, after that put the sterilization pouch in the sterilizer

4 Sterilization

Handpiece is suitable for the moist heat sterilization in the autoclave. The handpiece packaged into the sterilization pouch must be sterilized only in autoclave with purified water at 135°C in 15 min. Holding time (204 kPa (25.59 psi overpressure)).

Before use please insert the bur and connect it to the motor, then check for good condition

Do not exceed 135°C at all process.

Permissible, autoclaving that fulfill the requirements of EN 13060, class B or S.

Do not immerse the handpiece in cold water to speed up the cooling process. This would damage the handpiece permanently.

This handpiece can be capable of being subjected to a minimum of 250 cycles of sterilization without signs of deterioration.

During store, the sterilized handpiece cannot be removed from the sealed sterilization pouch. After sterilization, if the sterilization pouch had been opened, the handpiece is recommended to be used within four hours.

[Storage and transportation conditions]

Temperature: -10~55°C
Humidity: 10~90% RH
Moisture proof, avoiding sunshine and heat source during transport
[Production date, the use of time]
See product label
[After-sale Service] BESTDENT FOSHAN MEDICAL EQUIPMENT COMPANY LIMITED

5