

TRAUS AIR MOTOR

Please read this operation manual carefully before using, and file for future reference.



Model Name	MRD20NN	MRD22NN
Sterilization & Lubrication	Applicable	Applicable
Weight	79g	80g
Irrigation Type	Internal	External
Handpiece Connector Type	E-Type ISO 3964 Type 2	E-Type ISO 3964 Type 1
Hose Connector Type	ISO 9168 Type B (Midwest 4 hole)	
RPM	20,000 rpm ± 10%	
Torque	2.0 Ncm	
Air Pressure	0.25 – 0.3 MPa (2.5 - 3.0 kgf/cm ²)	
Air Consumption	42 – 51(NL/min)	
Irrigation Volume	50 ml/min	

※ RPM may vary slightly depending on the rotary direction, type of hose used.
 - Hose connector: conforming to ISO 9168 is used the hose connector.
 - Chain shaft: conforming to ISO 3964 is used the angle.

1. Intended purpose

: It is a dental products, which is in combination with dental unit chair, cuts and grinds the tooth by using air.

2. Components

: Air-motor, O-ring, Instruction manual

3. Product features & advantages

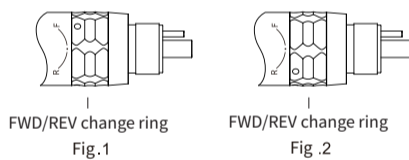
- The Anti-Retraction valve, equipped in the internal hose tube do prevents suction of oral fluids in a patient's mouth into the external hose tube of the spray water outlet part.
- Air-motor is autoclavable.
- Impeller case is treated with special coating. So, durability is so outstanding.
- Rotary direction can be selected by the FWD/REV change ring of air-motor.

4. Connection of each part

- 1) Mounting the handpiece
: Insert the handpiece into the air-motor all the way until click sound.
- 2) Removing the angle handpiece
: Pull out the angle handpiece from the air-motor.

5. Operation process

- 1) Forward rotation: Turn the FWD/REV change ring to 'F' as shown in Fig. 1
 - 2) Reverse rotation: Turn the FWD/REV change ring to 'R' as shown in Fig. 2
- ※ When the FWD/REV change ring is positioned at the middle of 'F' and 'R', the drive air is interrupted and the air-motor does not rotate.



6. Maintenance of the product

- 1) Lubrication
 - Air turbine spray
 - ① Insert spray nozzle tip to spray port.
 - ② Hold the nozzle tip firmly into the drive air tube of the product. (Refer to Fig. 3)
 - ③ Supply spray lubricant for approx. 2 seconds.
 - ④ Wipe the oil on product's surface by a soft cloth or rag after lubricating.
 - Air turbine oil
 - ① Supply 2-3 drops of oil into the drive air tube. (Refer to Fig. 3)
 - ② Run the air-motor for a while, approx. 10 seconds, to deliver the oil into the air-motor.

⚠ * Lubricate the air-motor after each use.
 * Hold the air-motor firmly while activating spray. Otherwise, the air-motor may be ejected from the spray nozzle by the spray pressure. (Refer to Fig. 4)



2) Sterilization

- ① Clean with the alcohol cotton or paper towel after removing dust on the surface.
- ② Put in the sterilization bag and seal tightly.
- ③ Put the bag in the sterilization machine and operate at 132°C for 4 minutes and dried for 30 minutes.

Sterilization	Temperature	Time	Dry Time
Moist heat sterilization	132°C	4 minutes	30 minutes

- ⚠ - This product is designed to endure 250 times of re-sterilization.
 - Make sure to use the sterilization bag and seal tightly.
 - Make sure to dry the applicable products before sterilization.
 - Sterilizing the product with blood or other remains may cause the breakage of the product. Therefore, it is necessary to clean the product before sterilization
 - This product recommends the moist heat sterilization (autoclave), other sterile methods are not guaranteed the effectiveness.

! [Caution for use]

- This product shall be used for intended purpose only.
- This product is not in sterilization once release by manufacturer. Please certainly do user sterilization before using. (Refer to 'Maintenance of product - sterilization')
- If sterilize the product with rest of blood, the product can be damaged. So, please fully clean up and lubricate the product.
- Do not drop or hit product against hard object.
- Do not disassemble or alter the product.
- Check for vibration, heating, noise and other abnormal symptoms before treatment.
- Stop the operation immediately if the product works abnormally and contact to seller or manufacturer.
- Do not mount or remove the angle handpiece while product is operating.
- Keep clean and dry supply air. Moisture and debris in supply air may cause the product to malfunction.
- Patient's safety is the first priority during treatment.
- Keep the product in the autoclave pouch to keep it clean until you use it.
- Lubricate the product after and before using.
- Incorrect use can be occurred damage of the product and tissue damage. Product must be used by experienced technicians and expert.
- The manufacturer does not have any responsibility for any accidents that user did not follow the instruction manual.
- Design and specification of product can be changed to improve quality of product.
- User has responsibility for the use and maintenance of the product.
- Product's operation time is 3 minutes, resting time is 10 minutes.
- US federal law restricts this device to sale by or on the order of dentist.
- If you want to get an instruction manual in other languages, please contact the manufacturer.

Operating condition	Transport and storage condition
Temperature: 10-35°C	Temperature: -20-60°C
Humidity: 10-80%	Humidity: 10-90%
Atmospheric pressure: 700-1,060hPa	Atmospheric pressure: 500-1,060hPa



This product is the medical device.

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