**1. Specification**

**Model**
- M500MHL
- M600MHL

**Head Type**
- Miniature Head
- Standard Head

**Rotation Speed**
- M500MHL: 350,000 - 400,000 rpm
- M600MHL: 380,000 - 450,000 rpm

**Spray Type**
- Care3 Plus

**Chuck Type**
- Push Button Chuck

**Bur Type**
- ISO 1797-1 Type 2: 1.59 - 1.60 mm
- ISO 1797-1 Type 3: 1.59 - 1.60 mm

**Max. Chucking Length**
- 26 mm

**Max. Working Part Diameter**
- 26 mm

**Max. Air Consumption**
- 0.25 MPa (2.5 kgf/cm²) - 0.30 MPa (3.0 kgf/cm²)

**Spray Rod**
- ø2 mm

**Use Environment**
- Temperature: -10°C - 50°C
- Humidity: 10% - 85%
- Atmospheric Pressure: 500 - 1,060 hPa

**Transport and Store Environment**
- Temperature: 0°C - 40°C
- Humidity: 30% - 75%
- Atmospheric Pressure: 700 - 1,060 hPa

**Quattro**
- Push Button Chuck
- ISO 1797-1 Type 2: 1.59 - 1.60 mm
- Standard Bur
- 10.5 mm
- 25 mm

**M500MHL**
- Miniature Head
- Rotation Speed: 350,000 - 400,000 rpm
- Spray Rod: ø2 mm
- Drive Air Pressure: 0.25 MPa (2.5 kgf/cm²) - 0.30 MPa (3.0 kgf/cm²)

**M600MHL**
- Standard Head
- Rotation Speed: 380,000 - 450,000 rpm
- Spray Rod: ø2 mm
- Drive Air Pressure: 0.25 MPa (2.5 kgf/cm²) - 0.30 MPa (3.0 kgf/cm²)

* M500MHL / M600MHL have Morita 4H Type Joints.

**3. Insertion & Removal of the Bur**

3-1 **To Insert the Bur (Fig. 2)**

- Depress the Push Button and insert the bur into the chuck until it is secure.
- Release the button.

3-2 **To Remove the Bur (Fig. 3)**

- Stop the handpiece.
- Depress the Push Button firmly and remove the bur.

**4. Lubrication**

Supply PANA SPRAY Plus or Care3 Plus after each use and/or before autoclaving.

<table>
<thead>
<tr>
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**5. Lubrication**

When using PANA SPRAY Plus or Care3 Plus automatic handpiece cleaning and lubrication system, refer to the Care3 System instructions.

**6. Intended Use**

This handpiece is designed only for dental treatment use.

**Caution**

- Do not use non-standard burs. The ISO standard shank diameter is ø1.59 - ø1.60 mm.
- Do not use bent, worn, damaged, or non-concentric burs. Such burs can cause damage to the handpiece.
- Do not exceed the bur speed recommended by the bur manufacturer.
- Do not use long surgical burs. Do not use burs longer than 26 mm.
- Always keep the bur shank clean. Entry of hard debris into the chuck via the bur shank could cause rotation slip and also prevent the bur from being securely located in the chuck.
- Fully depress the Push Button and insert the bur into the chuck until it is secure.
- Do not use short shank burs in Standard Head handpieces.

**6. Intended Use**

This handpiece is designed only for dental treatment use.

**Caution**

- When applying spray be sure to hold the handpiece firmly to prevent the handpiece from slipping out of the hand due to the spray pressure.
- Hold the spray can upright.

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**Note:** This document is a sample of a technical manual for a dental handpiece. It includes specifications, usage instructions, and safety cautions. The actual content may vary based on the specific model and manufacturer. Always refer to the original manufacturer's instructions for the most accurate and up-to-date information.
5. Sterilization
All handpieces can be autoclavable up to Max.135°C.

Autoclave sterilization is recommended. Sterilization is required first time you use and after each patient as noted below.

- Autoclave Procedure
  1) Scrub dirty and debris from the handpiece, and wipe clean with alcohol-immersed cotton swab or cloth. Do not use a wire brush.
  3) Insert into an autoclave pouch. Seal the pouch.
  4) Autoclavable up to a max. 135°C.

Caution
- Do not use a sharp tool to clean the cellular glass optic rod. It could damage the glass and reduce the light transmission. If illumination becomes dim please contact your dealer.
- Do not blow the air into Clean Head Hole.
- Use only the genuine NSK-manufactured turbine cartridge. Do not use repaired or re-built NSK turbine cartridge. Non-conformance to this shall immediately void the manufacturer’s warranty, and the manufacturer shall have no liability to the user and the patient for any incident that may arise from use of such turbine cartridge.

7. Replacing the Turbine Cartridge
7-1 Remove the turbine cartridge from the handpiece
1) Insert a bur into the chuck.
2) Locate the head cap wrench tool on the head cap then turn the wrench counter-clockwise. Remove the cap.
3) Use the bur to gently lever the entire turbine cartridge out of the head.
4) Remove debris from inside the empty head.
7-2 Insert a new NSK turbine cartridge
1) Gently insert the new NSK turbine cartridge into the head section, always making certain that the turbine cartridge locating pin is aligned in the slot inside the head.
2) Use fingers to screw the head cap back into place and then use the cap wrench to further tighten until the cap is securely in place.

Optional Cartridge : SX-MU03 (Cartridge for Miniature head) Order No. P1001250
SX-SU03 (Cartridge for Standard head) Order No. P1002250

6. Cleaning the cellular glass optic rod
Wipe clean the cellular glass optic rod exit point (Fig. 5) with an alcohol-immersed cotton swab. Remove all debris and oil.

Caution
- Do not autoclave the handpiece with other instruments even when it is in a pouch. This is to prevent possible discoloration and damage to the handpiece from chemical residue on other instruments.
- Do not use high acid water or sterilizing solutions to wipe, immerse or clean the handpiece. Keep the handpiece in suitable atmospheric pressure, temperature, humidity, ventilation, and sunlight. The air should be free from dust, dirt and sulfur.
- Do not touch the handpiece immediately after autoclaving it as it will be very hot and must remain in a sterile condition.
- Autoclave sterilization is recommended for the handpiece. The validity of other sterilization methods is not confirmed.

8. Cleaning of Spray Ports
When Spray Ports are clogged, or spray does not exit evenly from each port, clean the ports as follows:
1) Remove the Cartridge.
2) Insert the Cleaning Wire straight into the Spray Port. (Fig. 8)
3) Remove the debris.

Caution
- Do not blow the air into Clean Head Hole.

9. Disposing Product
Consult with dealer from whom you purchased it about waste disposal.