

Operation Manual

E-type Straight Handpiece

ES-30A, ESG-30AR

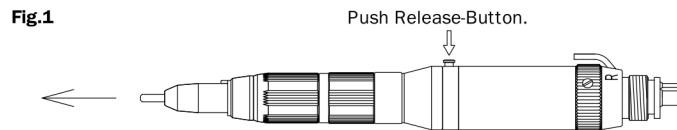
CAUTION This product is designed for dental use. Its operation and maintenance should be done under dentist's supervision.

Thank you for choosing our Straight Handpiece (ST Handpiece). This Handpiece, carefully produced, based on both Japanese advanced technology and our experienced craftsmanship since its start in 1956, boasts of its high quality. Please read this manual well before use. We hope that our product with proper use meets your full satisfaction.

1. Maximum Rotation Speed : 40,000rpm
2. Applicable Bur : HP type ISO standard (φ2.35)
3. Chuck Ability Force to Withdraw : more than 5kg
Rotating Direction : more than 450g·cm
4. Bur Concentricity : Less than 0.015
5. Coupling with Motor : ISO standard (E-type)
6. Sterilization : 135°C autoclave
7. Gear Ratio : ES-30A 1 to 1
ESG-30A 4 to 1

1. Coupling with Motor

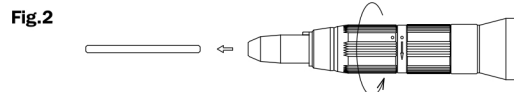
- In order to couple with our Airmotor, push the motor nose into the sheath of ES-30A all the way until the stopper of Airmotor is properly hooked in the inside groove of ST Handpiece. Verify proper coupling by pulling the ST Handpiece and the Airmotor.



- For coupling with other Air- or Micro-Motor, refer to its operation manual.
- Please make trial run at low speed after coupling.

2. Bur Change

- At the bur-locking position, where the dot on Chuck Locking Ring meets the one on ST Handpiece body, turn the Chuck Locking Ring to the direction indicated by arrow with the ST Handpiece held fixed, all the way till it couldn't go any further. Pull off test bur, and insert a clean bur. Turn back the Chuck Locking Ring, with the ST Handpiece held fixed, all the way till it couldn't go any further, where the two points meet each other.



3. Operation

- Use with motor running below 40,000rpm.

Maintenance

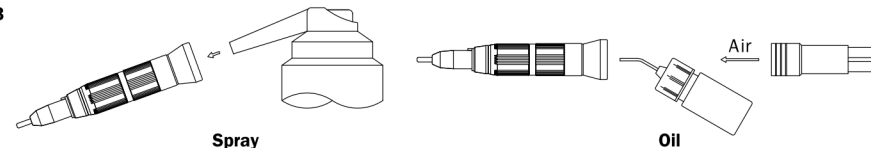
CAUTION To keep ST Handpiece under good condition, lubricate oil specifically made for dental handpiece should be used. Use the spray as instructed by its manufacturer. Lubrication should be done every day.

1. Lubrication

Be sure to lubricate before autoclave, and in the case that water and /or dust gets inside. Spray lubrication could also make inside cleaning. It should be done twice each time. Spray lubricate oil at the back of Sheath of ST Handpiece. (It has the same effect with spray lubrication that air, with the hose attached, is supplied after 2 drop of lubricate oil is placed at the back of sheath.)

CAUTION Without being held firm by hand, ST Handpiece could be pushed away by air-pressure of spray. Accidental drop of the equipment could cause damage on it.

Fig.3



2. Surface Cleaning

Clean with brush and wipe off by cloth. Lubrication should be done every time after surface cleaning. Although it has effect to apply a little alcohol on the cloth, excessive amount, by seeping inside ST Handpiece, could take off the lubricate oil on ball-bearing. In that case, lubricate again.

3. Inside Cleaning

Take the same steps with the process of spraying lubricate oil. Operate trial run at low speed every after lubrication. In order to drive dirt out of nose, repeat the process at least twice. Do the cleaning once a day.

Sterilization

CAUTION Do not put ST Handpiece through ultrasonic disinfection solution cleaning procedure. Do not use cold sterilization or dry heat.

1. Clean with brush and wipe off by cloth. Refer to the section, MAINTENANCE, 2. Surface Cleaning.
2. Lubricate with Spray. Refer to the section, MAINTENANCE, 1. Lubrication.
3. Autoclave at the temperature 130 – 135°C (2Mpa) for 20min.
4. Take the ST Handpiece out of the Autoclave and dry it in room temperature.

CAUTION Do not operate Autoclave dry cycle at the temperature higher than 135°C.

5. After the ST Handpiece is completely dried, lubricate it twice. Refer to the section, MAINTENANCE, 1. Lubrication.
6. Repeat chuck-open and close a few times.

Warning

1. Do not drop ST Handpiece nor apply excessive force or impact on the bur connected. Warranty is invalid for the trouble caused by those acts. (Prevent the bur on ST Handpiece from hitting others in time of autoclave.)
2. When water gets inside the Handpiece, lubricate more than three times.
3. Do not run ST Handpiece without locking bur.
4. Do not run ST Handpiece with chuck opened.
5. For safety, mount Test Bur, the standard accessory, on the ST Handpiece, when it is not in use.
6. In using the bur with its working diameter more than 5mm, gradually increase the speed in order to assure positive retention.

CAUTION In high speed use, the bur with large operating diameter could fly off and cause serious damage on human body.

Warranty

Trouble, which occurs due to material defect or despite with correct use as the instruction manual states, during the period specified below, is covered under warranty by the manufacturer. Quality deterioration caused by drop of ST Handpiece will be excluded from warranty coverage. Straight Handpiece : 1 year

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Specification

How to use