


# OPERATION MANUAL

## HIGH SPEED AIRTURBINE STRAIGHT HANDPIECE FOR LABORATORY USE

### 300ZT AIR HANDPIECE

Please be sure to read this manual before use, for your safety in using the equipment.  
Please keep this manual where it is easily located by the user of equipment.

**CAUTION**  Please be sure to use the equipment under the supervision of dental technician or dentist.  
•Due to high-speed rotation, it could cause serious damage if the bur in rotation comes off. Please make sure that the bur is properly fixed in the chuck when it is in use.

#### FEATURE

- High speed, 320,000rpm, combined with large torque (1.5 times as large as our conventional type) enhances both maneuverability and work efficiency.
- By using the tool attached, you will be able to sure-mount even hair-thin shaped bur with no damage.
- The silencer drastically reduces the noise of exhaust air.

#### SPECIFICATION

- Max. Rotation Speed : 320,000rpm
- Proper Air-Pressure : 0.30MPa(3.0kgf/cm<sup>2</sup>)
- Max. Air-Pressure : 0.32MPa(3.2kgf/cm<sup>2</sup>)
- Max. Air Consumption : 35L/min.
- But to be applied : FG Type ISO Standard(1.6Ø)
- Chuck Hold : TS-300ZT more than 25N(2.55kgf)
- Bur Deviation : Less than 0.01mm
- Torque at Halt : 0.1N(10g·cm)
- Tube socket with Air-Hose : 4mmØ

\*The specification could be changed without advance notice

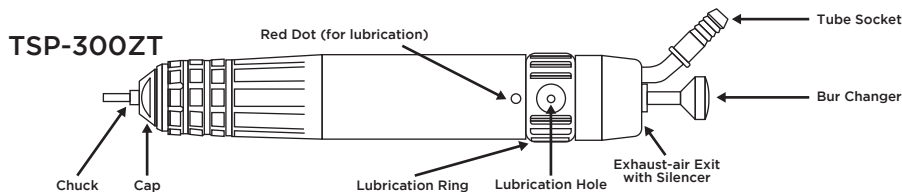
#### HOW TO USE

1. Connect with Air-Hose : Couple the hose for air-supply out of foot-controller with tube socket on the handpiece.

2. Change Bur :

TS-300ZT  
Removal : Push off bur with the bur-changer pushed. Be careful not to jump off the bur.  
Insert : In mounting thin bur, first, push the tip of bur into the round-hole on hexagon box-wrench, then, insert the other side of bur all the way till it hits the end of chuck. In mounting other types of bur into the HP, use tool which can protect the tip of bur.

#### FORM AND STRUCTURE



#### LUBRICATION

Lubrication should be done before use everyday. Lubricate once everytime the handpiece is used for more than 2 hours

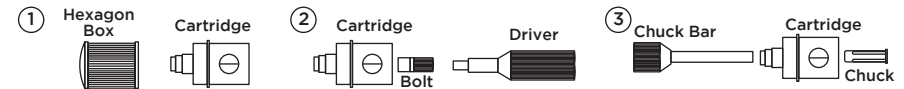
1. Match the red dot on the handpiece body with the lubrication hole on lubrication ring.
2. Lubricate a couple of drops of oil by inserting the beak of oil dispenser to the lubrication hole.
3. Rotate the lubrication ring to un-match the red dot on the handpiece body with the lubrication hole. Before use, push down foot-controller to send air, in order to spread oil inside properly. (Note 1) Excessive oil could be spread out of exhaust-air exit. Attach clothes or tissue-paper at the exit to prevent the spread. (Note 2) Although auto-lubrication is also possible, oil inside could be driven out on the item processed. The method of Note 1 is recommended.

#### HOW TO USE OIL DISPENSER

1. Screw off the red cap of oil dispenser container.
2. Attach lubrication needle on the top of container red. (Note) Keep the oil dispenser container with the green cup on, when it is not in use for long.

#### HOW TO CHANGE CHUCK

1. Fix one side of cartridge (the side to mount the bur) without bur into the hexagon box.
2. Screw off the bolt on another side of cartridge (the side to face handpiece body) by driver.
3. Take off the hexagon box, put the chuck bur into the chuck, and push it out.
4. Take the step 2 and 3 in reversed order, to return to the start.



#### HOW TO CHANGE CARTRIDGE

1. Screw off the cap with the wrench enclosed.
2. Take out the cartridge and insert the new one specifically made for the handpiece. In placing in the new cartridge, see to it that the projection on it slides along with the groove inside. Otherwise the case could cause break down. (Note 1) Please clean the area where the cartridge is placed in, before the change. (Note 2) The cartridge should be changed every 6 month use.



#### NOTE

- Proper air-pressure for handpiece use is 3kg/cm<sup>2</sup>. The air-pressure higher than it could reduce the life-span of cartridge.
- Please use the handpiece after the cap is tightly fixed with the wrench attached.
- In lubricating manually, completely stop the oil in the oiler device on regulator.
- The handpiece runs with high-speed, at 320,000rpm maximum. Use the protection goggle for your safety. Do not point at other people.
- Do not disassemble, nor fiddle with inside the handpiece.
- Damage on ball-bearing, caused by strong impact such as fall, could lead to break-down.
- Immediately stop operation when abnormal noise is emitted in use.
- Mount the bur after it is cleaned off.
- The handpiece is precision equipment. In order to maintain proper air supply, check the air control device at least once a month.
- When the dirt starts to be detected on the regular filter, conduct cleaning after drain-off.

#### STANDARD ACCESSORY

- Wrench
- Hexagon Box
- Chuck Bar
- Driver
- Lubrication Needle
- Lubrication Oil (7cc)

#### WARRANTY AND REPAIR

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

Warranty Period : Cartridge 3months/ Sheath and other 1 year