

INSTRUCTION MANUAL

CLAMP JOINT ET51・MG03

READ FOLLOWING INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING TO USE.
KEEP THIS MANUAL ALWAYS IN THE VICINITY OF USE FOR YOUR REFERENCE.
BEFORE USING THE UNIT, CHECK IF THERE ARE ANY DAMAGES ON THE UNIT DUE TO
TRANSPORT CONDITIONS. IF ANY DAMAGES ARE FOUND, CONTACT OUR MINIMO DEALER.

SAFETY PRECAUTIONS

⚠ WARNING (INDICATES THAT INCORRECT OPERATION PRESENTS SIGNIFICANT DANGER OF ACCIDENT RESULTING IN DEATH OR SERIOUS INJURY TO THE USER.)

- DO NOT START TO RUN THE HANDPIECE WHILE ITS COLLECT CHUCK OPENS.
FAILURE TO DO SO COULD CAUSE THE MOTOR TO BE OVERHEATED, RESULTING IN FIRE OR FAILURE.
- MAKE SURE WHETHER OR NOT THE HANDPIECE RUNS AFTER SWITCHING ON.
IF THE HANDPIECE DOES NOT RUN AFTER SWITCHING ON, STOP USING IT.
FAILURE TO DO SO COULD CAUSE THE MOTOR TO BE OVERHEATED, RESULTING IN FIRE OR FAILURE.
- WEAR AN APPROPRIATE EYE PROTECTION AND A DUST PROTECTING MASK WHEN USING THE HANDPIECE.
- TURN OFF THE MAIN SWITCH IMMEDIATELY AND UNPLUG THE AC CABLE WHEN ONE OR MORE OF THE FOLLOWINGS ARE RECOGNIZED. SMOKING:NASTY SMELL:STRANGE NOISE.
- DO NOT DISASSEMBLE AND REMODEL THE UNIT. ANY ACCIDENT OR MALFUNCTION CAUSED BY DISASSEMBLING AND/OR REMODELING WILL NOT BE COVERED BY OUR RESPONSIBILITY.
- NEVER PUSH THE SENTAN TOOL HARD ONTO THE WORKPIECE. EXCESSIVE FORCE ON THE TOOL WILL CAUSE DAMAGE TO THE TOOL AND ALSO REDUCE THE POWER OF THE MOTOR.
- WHEN TURNING ON THE POWER SWITCH, HOLD THE HANDPIECE FIRMLY.
- DO NOT TOUCH ANY REVOLVING BODIES SUCH AS SENTAN TOOL AND COLLET CHUCK.

⚠ CAUTION (INDICATES THAT INCORRECT OPERATION PRESENTS POSSIBILITY OF INJURY TO THE USER OR DAMAGE TO THE UNIT.)

- DO NOT USE THE UNIT IN EXCESSIVELY HUMID PLACE. THE CONDENSATION OF VAPOR ON AND/OR INSIDE OF THE UNIT CAUSES A MALFUNCTION OF THE UNIT, A SHORT CIRCUIT, FIRE OR AN ELECTRIC SHOCK
- DO NOT USE THE UNIT WHERE CORROSIVE GASES AND CHEMICALS POSSIBLY EXIST.
- THE AMBIENT TEMPERATURE SHOULD BE IN THE RANGE OF 0° ~ 40° C
- KEEP THE UNIT AWAY FROM CHILDREN.
- AVOID ANY HEAVY IMPACT TO THE UNIT. DO NOT DROP!
- KEEP ALL LIQUIDS SUCH AS OIL, WATER, AND ETC. OFF THE UNIT. THIS MAY CAUSE A MALFUNCTION OF THE UNIT, CATCH FIRE AND/OR GET AN ELECTRIC SHOCK.
- READ THE INSTRUCTION MANUAL OF THE MOTOR AND THE POWER PACK AS WELL.

4. TROUBLE SHOOTING

☆ THE MOTOR DOES NOT OPERATE.

- CHECK IF THE AC CABLE IS CERTAINLY PLUGGED IN.
- CHECK IF THE FUSE OF THE POWER PACK IS BURNED OUT.
- CHECK IF THE CURLED CORD IS CERTAINLY CONNECTED.
- CHECK IF THE CARBON BRUSH OF THE MOTOR IS WORN OUT.
- CHECK IF THE COLLET RELEASE LEVER IS IN "SET" POSITION.

☆ THE REMOTE SWITCH DOES NOT OPERATE.

- CHECK IF THE FOOT SWITCH IS CONNECTED TO THE POWER PACK.
- CHECK IF THE POWER PACK IS EITHER MINIMO 1 SERIES OR 7 SERIES.

⚠ NOTES FOR THE USE OF SENTAN TOOLS

- THE LENGTH OF HANGING OVER OF THE SENTAN TOOL SHOULD BE AS SHORT AS POSSIBLE. THE LONGER HANG OVER, THE MORE RISK YOU WILL HAVE FOR THE TOOL TO BE BENT OR BROKE OR EVEN INJURED YOURSELF. THE STANDARD LENGTH OF THE HANGING OVER IS LESS THAN 5 mm.
- GRINDING TOOLS SUCH AS METAL BONDED DIAMOND AND ELASTIC ABRASIVE MOUNTED POINTS NEED TO BE DRESSED IN A CERTAIN INTERVAL BECAUSE OF CLOGGING.

MINITOR CO., LTD. JAPAN

21-1 Ryogoku 3-chome, Sumida-ku, Tokyo 130-0026 JAPAN

Phone +81 3 (6630) 5800 FAX +81 3 (6630) 5795

Products are subject to change without notice.

1. FEATURES

REINFORCED HOUSING PROVIDES EXTRA RIGIDITY FOR CLAMPING.
SUITABLE FOR USE WITH THE AUTOMATIC MACHINERY.
INSTALL BETWEEN THE HEAD AND THE MOTOR.

2. INSTALLATION

2-1. ATTACHING TO THE MOTOR

- 1) INSERT THE CLAMP HEAD ONTO THE MOTOR WITH PLACING THE CLAW OF THE HEAD IN A GROOVE OF THE MOTOR.
 - 2) TIGHTEN THE JOINT RING TO SECURE THE HEAD IN POSITION.
- * 4 GROOVES ARE PROVIDED ON THE MOTOR SO THAT YOU CAN CHOOSE A SUITABLE REMOTE SWITCH POSITION IN ACCORDANCE WITH YOUR OPERATION CONDITIONS.

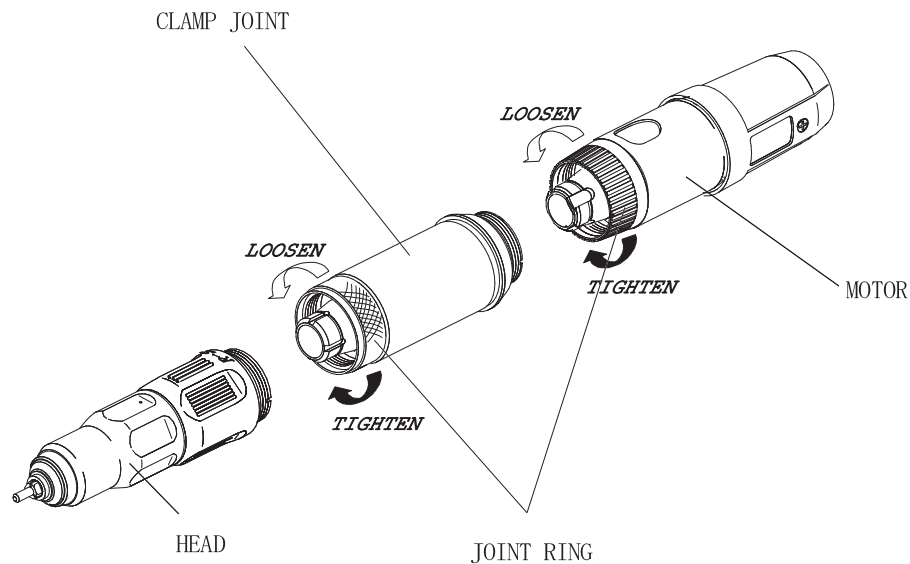


Caution

FOR YOUR SAFETY, DISCONNECT FROM THE MOTOR TO THE POWER PACK WHEN ATTACHING OR DETACHING FROM THE HEAD TO THE MOTOR.

2-2. ATTACHING THE HEAD TO THE CLAMP JOINT

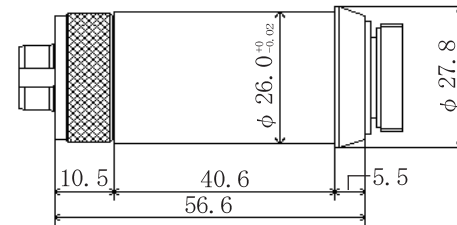
JUST THE SAME PROCEDURE AS ABOVE.



3. SIZES

ET51

CLAMP JOINT... ALLOWABLE REVOLVING SPEED IS LESS THAN 35,000 rpm
NO GEAR IS USED. JUST JOINTING HEAD AND MOTOR

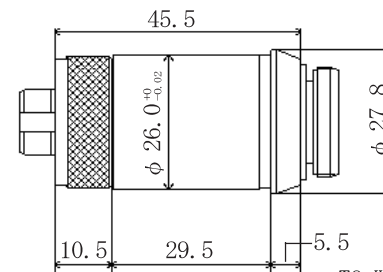


APPLICABLE HEADS ARE ;
H011, H021, H031, H041, H211, H221, H231
H311, H32, MX52, MX53, FX91

APPLICABLE MOTORS ARE ;
KM11H, KM21H, KV21, KM11, KM21,
KM21L, KM11G
KM112H, KM212H, KV212, KM112, KM212,
KM212L, KM112G

MG03

1/4 Reduction Ratio GEAR JOINT... ALLOWABLE REVOLVING SPEED
IS LESS THAN 30,000 rpm



APPLICABLE HEADS ARE ;
H011, H021, H031, H041, H211, H221, H231
H311, H32, MX52, MX53, FX91

APPLICABLE MOTORS ARE ;
KM21H, KV21, KM11, KM21, KM21L, KM11G
KM212H, KV212, KM112, KM212, KM212L,
KM112G

TO WORK REQUIRING LOW REVOLUTION AND HIGH TORQUE.



Caution

CONNECTED MOTOR AND HEAD MUST USE THE APPLICABLE APPLICATIONS.
THERE IS A POSSIBILITY THAT THE PRODUCT BREAKS DOWN WHEN INAPPLICABLE HEAD
AND MOTOR ARE USED.