

**Laboratory Equipment Manufacturer** www.mrclab.com  $C \in -\overline{I \odot Net}$ 

# **INSTRUCTION MANUAL FOR** HOG-020/020D **HOMOGENIZERS**

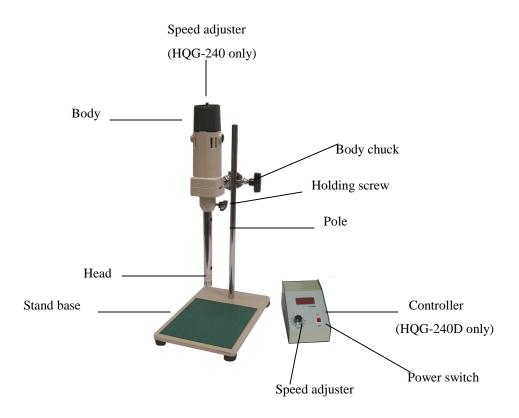


PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATION

3, Hagavish st. Israel 58817 Tel: 972 3 5595252, Fax: 972 3 5594529 mrc@mrclab.com

MRC.VER.02-11.10

# *I* • OUTLINE



# **∏** • SPECIFICATION

| Model            | HQG-240 / HQG-240D        |  |
|------------------|---------------------------|--|
| Power            | AC 110 / 220V, 50 / 60 Hz |  |
| Motor            | AC 250W                   |  |
| Max. speed (rpm) | 26,000                    |  |
| Driver           | Electronic type           |  |
| Safety device    | Fuse                      |  |
| Coating          | Medicine-resisting        |  |
| Weight (kg)      | 7                         |  |

# **///, OPERATION INTRODUCTION**

- 1. Put container on stand base and keep distance between the head and bottom of container.
- 2. Turn the speed button to the end of left side.
- 3. Put plug into socket and then switch to be "ON" to start it.
- 4. Adjust speed button to be proper speed per your demand.
- 5. When you stop it, please turn speed button to the end of left side.
- 6. Switch the key to be "OFF".

# IV, ATTENTION

- 1. Do not start it without any material inside container.
- 2. The speed has to match material's viscosity to avoid head at empty rotation.
- 3. Bad fluid is not suitable to the instrument
- 4. Heads are changeable, please loose the holding screw and take head off.
- 5. After you clean or change head, please must fix and screw it tightly.

# V, INSPECTION

When the machine is out of order, please check following possible facts:

- 1. Fuse burns out or not.
- 2. Carbon brushes at both sides of motor use out or contact improperly.
- 3. If carbon brushes use out, then take it off and renew it.

## If above have been checked and useless, please send the machine back to agent for further examination and maintenance.

# VI, APPLICATION OF HEADS

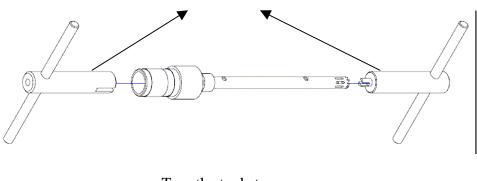
| Model     | Applicable range                                     |  |  |
|-----------|--|--|--|
| I GP/2232 | To homogenize or mix on cell tissue in micro volume. |  |  |
| I GP/2472 | 1. To disperse plant or animal tissue.               |  |  |
|           | 2. To treat suspensions and emulsions.               |  |  |
|           | 3. Homogenizing and mixing.                          |  |  |
|           | 4. Extraction function.                              |  |  |
| I GP/4222 | 1. To disperse plant or animal tissue.               |  |  |
|           | 2. To treat suspensions and emulsions.               |  |  |
|           | 3. Homogenizing and mixing.                          |  |  |
|           | 4. Extraction function.                              |  |  |
| I GP/5222 | 1. To disperse organic and inorganic matters.        |  |  |
|           | 2. Homogenizing and mixing.                          |  |  |
|           | 3. Extraction function.                              |  |  |

# VII, SPECIFICATION OF HEADS

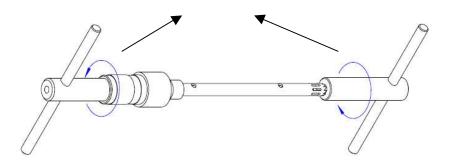
| Model     | Circumference Speed (m/s) | Capacity (ml) | Size (mm)        |
|-----------|---------------------------|---------------|------------------|
| I GP/2232 | 6.3                       | 0.3~10        | <b>φ</b> 7 x 130 |
| I GP/2472 | 11.3                      | 2~250         | φ12 x 170        |
| I GP/4222 | 20.1                      | 20~2000       | φ20 x 200        |
| I GP/522  | 29.9                      | 100~3000      | ф30 x 250        |

## I GP/2232

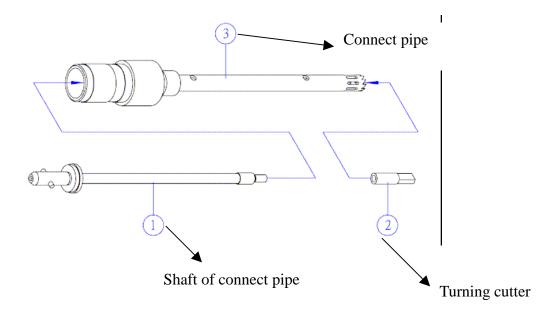
Insult the tools into the shaft



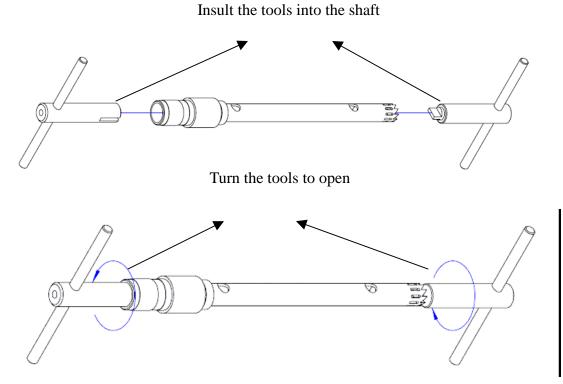
Turn the tools to open



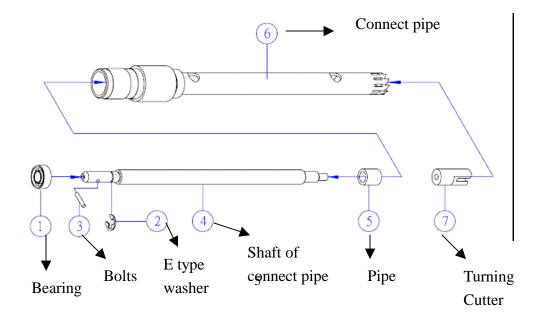
After open the shaft , 3 main parts from shaft I GP/2232 as follows

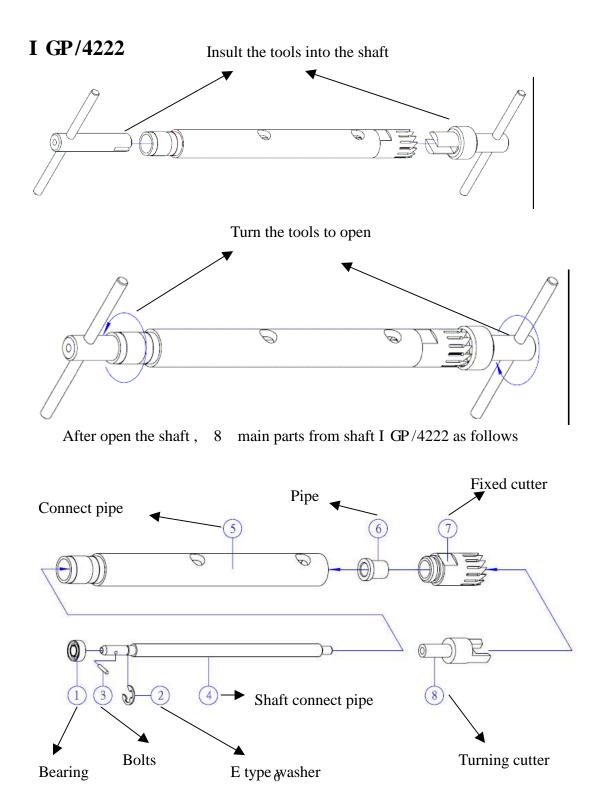


## I GP/2472

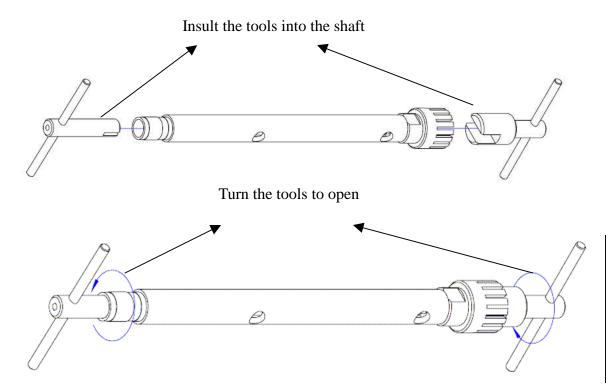


After open the shaft , 7 main parts from shaft I GP/2472 as follows

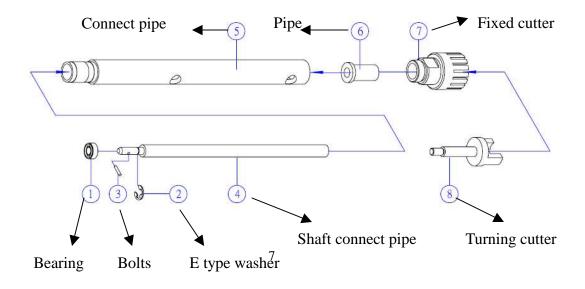




## I GP/5222

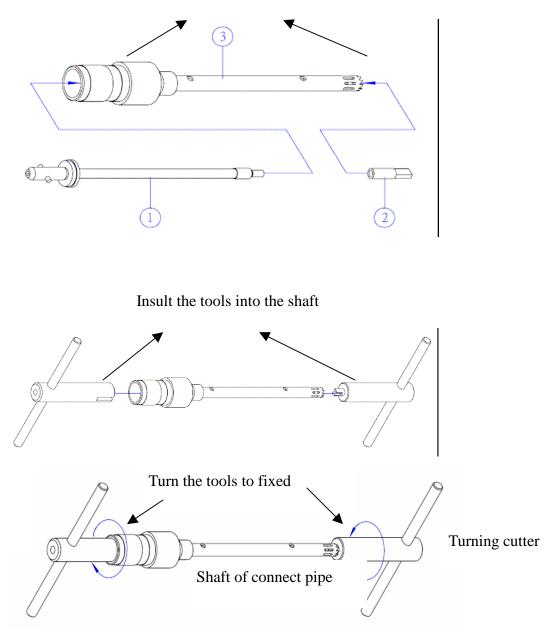


After open the shaft , 8 main parts from shaft I GP/5222 as follows



# I GP/2232

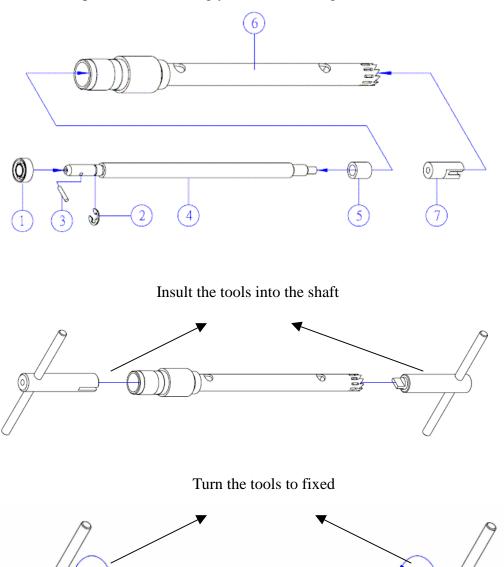
Put each parts into Accordinly with the drawing



## I GP/2472

0)

Put each parts into Accordingly with the drawing

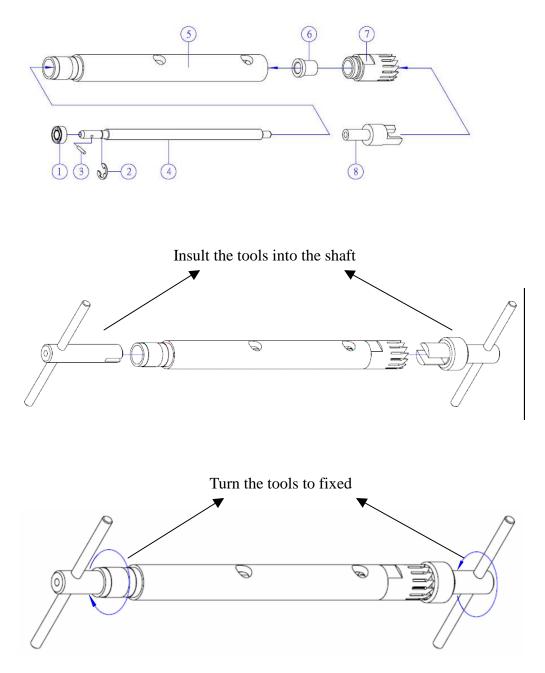


5

Ø

## I GP/4222

Put each parts into Accordinly with the drawing



## I GP/5222

Put each parts into Accordinly with the drawing

