

# **HZG-500**

## **Hydrogen Generator**



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## I.Overview

High purity hydrogen generator is composed of electrolytic separation tank, switching power supply, pressure control, drying purification, flow display and other systems. The "heart" electrolytic separation tank of this instrument is of barrel structure. Liquid storage, hydrogen production and oxygen discharge can be carried out at the same time, which has the advantages of large electrolytic area, low temperature, good performance and high purity, and is the best substitute for plate electrolytic cell. This instrument is equipped with no return liquid device, which can effectively ensure no return liquid phenomenon of the instrument.

## II.Main Technical Parameters

- 1、Power supply voltage: 220v      50Hz
- 2、Maximum power: 150W;      180W
- 3、Ambient temperature: 0-40℃      relative humidity<85%。
- 4、Environmental conditions: no large amount of dust and corrosive gases.
- 5、Gas production purity: 99.999 % (relative oxygen content)
- 6、Output flow rate:    Type 300      0 -300 ml/min  
                                         Type 500      0 -500 ml/min
- 7、Output pressure: 0.4Mpa (if special pressure is required, the factory shall inform the factory to decide otherwise before leaving the factory)
- 8、Dimension; 370×200×270 mm    (L×W×H)
- 9、Weight:    Type 300 about 12Kg;    Type 500 about 13Kg

## III.The Instrument Features

1. simple operation, just start the power switch, can produce gas.
2. When the pressure reaches the set position, the gas production will change according to the gas consumption, and the output pressure is stable, and the flow rate is displayed by LED digital, which is more intuitive and eye-catching.
3. daily use only need to add distilled water, can be used continuously, can also be used intermittently.
4. liquid storage, electrolysis hydrogen production, oxygen discharge integration, pool

temperature is low, long life.

5. with no return liquid device, can effectively ensure the instrument no return liquid phenomenon.

## IV.Operation Method

1.Take the instrument out of the packing case, check the appearance and internal abnormal phenomena such as no serious damage caused by transportation, and then check whether the power cord and accessories are complete.

2.Start-up preparation and connection:

Prepare electrolyte; Dilute 200g of analytical pure KOH (potassium hydroxide) with 400ml distilled water, and inject it into the injection port (the maximum volume of the pool is 1.4L) after KOH is dissolved and cooled, and then add distilled water to the position of liquid level H line. The injection port is located at the top of the instrument, and take the infusion cover to inject the liquid.

Turn on the power to start the switch, the instrument flow display should be:

Type 300 0-320ml/min      Type 500 0-510 ml/min

Turn on normally, tighten the outlet with a sealed cap, no leakage.

2 minutes after starting the machine, the pressure indicator is 0.4Mpa, and the LED digital display is close to "000", indicating that the instrument is normal. Otherwise, air leakage will be eliminated after the liquid soap detection.

Shut off the power, to get off the sealing cap on the outlet, with  $\Phi$  3 pipe connected to the instrumentation and guarantee not leak sealing. Restart the power to use.

## V.Matters Needing Attention

1. Observe the discoloration of the discoloration of the discoloration of the silica gel from above, and replace the silica gel according to needs. Turn off the power when replacing, and rotate the drying and purification chamber clockwise after the pressure indication is zero, and then install it in the opposite direction to ensure the seal.

2. LED digital display value is for reference only. It is converted from electrolytic current, so it is normal to have  $\pm 1$  change in 10-digit flow rate.

3. The position is between the upper and lower wires. During electrolysis, no KOH is

consumed, and only distilled water is added (it is recommended to replace the electrolyte once every 6-7 months and reprepare it with the same method as before).

## VI.Special Note

1. If the pressure indicated by the pressure gauge is low or the digital display is larger than usual, it is generally caused by air leakage, and should be fully leaked. In particular, when replacing the sealing port of the color-changing silicone, do not squeeze foreign matter on the upper and lower thread seals.
2. Air source instruments are strictly forbidden to start with no load. If the machine is not turned on for a long time, the electrolyte should be extracted;
3. After pouring the prepared lye into the water tank, the sealed inner cover of the water tank should not be installed any more, because the gas tank is generated when working, just need to install the outer cover.

## VII.Quality Assurance

1. The whole machine shall be guaranteed for one year from the date of sales. Within the warranty period, it shall be maintained free of charge and enjoy lifelong maintenance services.
2. If users encounter product quality or technical problems during use, they are welcome to consult.

## VIII.Packing List

| No. | Item                                                                | Qty |
|-----|---------------------------------------------------------------------|-----|
| 1   | Main engine                                                         | 1   |
| 2   | Sealing pressure caps(M8×1)                                         | 2   |
| 3   | Rubber sealing ring                                                 | 8   |
| 4   | Fuse pipe(10A)                                                      | 2   |
| 5   | Power line                                                          | 1   |
| 6   | Analytical pure potassium hydroxide (for electrolyte solution) 200g | 1   |