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JY/T 0426-2011

**Glass instrument gas generator for teaching
(English Translation)**

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12 Full height H	238 ± 10 306 ± 15 360 ± 17 448 ± 23 530 ± 25

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that some elements of this standard may involve patents. The issuer of this standard should not be held responsible for identifying these patents.

This standard was proposed by the National Technical Committee for Standardization of Teaching Instruments (SAC/TC125).

This standard is under the jurisdiction of the National Technical Committee for Standardization of Teaching Instruments (SAC/TC125).

This standard was drafted. Sichuan Longchang Glass Instrument Factory, Zhejiang Educational Technology Center, Sichuan Ziyang Glass Instrument Factory, Sichuan Scientific industry teaching equipment limited liability company.

1 Scope

This standard specifies the classification and nomenclature of gas generators, technical requirements, test methods, inspection rules, packaging, transportation, storage, etc.

Content.

This standard applies to teaching gas generators.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB 191-2008 packaging storage and transportation pictogram GB/T 2828.1-2003 Counting sampling acceptance procedure Part 1. Sampling plan for batch inspection for retrieval by acceptance quality limit (AQL) JY 0001-2003 General quality requirements for teaching instruments and equipment products JY 0002 Inspection rules for teaching instruments and equipment products JY 0026-1991 teaching instrument and teaching equipment product model naming method JY/T 0423-2011 General quality requirements and test methods of teaching glass instruments

3.1 Product Classification

According to the capacity, it is divided into five specifications. 125mL, 250mL, 500mL, 1000mL, and 2000mL.

3.2 Model designation

The model name of the product is in accordance with JY 0026-1991.

The model of the gas generator is named.

L - QFQ - Q - 125

Product specifications (capacity), unit. mL Product feature code, spherical Product name Pinyin prefix, gas generator Product model classification code, glass instrument Model example.

L-QFQ-Q-125. A spherical gas generator with a capacity of 125 mL.

4.1 Materials

It should be made of transparent soda-lime glass without yellow-green.

4.2 Dimensions

4.2.1

The dimensions and tolerances of various specifications of gas generators shall conform to Table 1 and Figure 1.

Table 1 Dimensions and tolerances in millimeters

Serial number part name Specifications and tolerances 125mL 250mL 500mL
1000mL.2000mL

- 1 Full bucket height H1 225 ± 5 291 ± 5 345 ± 5 433 ± 8 515 ± 9
- 2 Ball height h2 68 ± 3 93 ± 3 114 ± 3 145 ± 5 175 ± 6
- 3 Ball neck large head inner diameter d1 17 ± 1 24 ± 2 24 ± 2 29 ± 2 29 ± 2
- 4 Small head diameter D6 14 ± 3 17 ± 3 20 ± 3 23 ± 3 23 ± 3
- 5 Upper ball wall thickness S1 > 1.2 > 1.5 > 2 > 2.5 > 2.5
- 6 Center distance between the two balls of the base h4 86 ± 3 110 ± 5 127 ± 5 158 ± 8 190 ± 8
- 7 Hemispherical diameter D3 98 ± 2 128 ± 2 145 ± 3 175 ± 5 210 ± 8
- 8 Connection port diameter D4 28 ± 3 31 ± 3 50 ± 4 65 ± 5 75 ± 5
- 9 Inner diameter of base neck big head d2 24 ± 2 29 ± 2 34.5 ± 2 50 ± 2 50 ± 2
- 10 Sphere and hemisphere wall thickness S2 > 1 > 2 > 2 > 2.5 > 2.5
- 11 Base thickness S3 > 2 > 2 > 3 > 3 > 3

12 Full height H 238 ± 10 306 ± 15 360 ± 17 448 ± 23 530 ± 25

4.2.2 The distance between the funnel handle and the inner wall of the bottle mouth should be no more than 2mm (single side).

4.3 Appearance

4.3.1 The permitted appearance defects shall meet the requirements of Tables 2 and 3, and necking and shoulder collapse defects shall not be obvious, and there shall be no obvious neck distortion.

Table 2 Permitted appearance defects

Serial number

defect

name

Part

125mL	250mL	500mL	1000mL	2000mL	Maximum diameter mm	Quantity	Maximum diameter mm	Quantity	Maximum diameter mm	Quantity	Maximum diameter mm	Quantity	Maximum diameter mm	Quantity
					1 bubble	≤ 5	≤ 2	≤ 5	≤ 2	≤ 6	≤ 2	≤ 8	≤ 2	≤ 10
≤ 2	Sphere	≤ 5	≤ 3	≤ 5	≤ 4	≤ 6	≤ 4	≤ 8	≤ 4	≤ 10	≤ 4	2 nodules	Bucket	≤ 2
≤ 2	≤ 3	≤ 3	≤ 3	≤ 4	≤ 3	≤ 5	Sphere	≤ 2	≤ 3	≤ 3	≤ 3	≤ 4	≤ 3	≤ 5

3 Stones

Bucket ≤ 2 ≤ 1 ≤ 2 ≤ 1 ≤ 2 ≤ 2 ≤ 2 ≤ 3 ≤ 3 ≤ 3 Sphere ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤ 3
 ≤ 2 ≤ 5 ≤ 3 ≤ 5

Table 3 Permissible appearance defects

Defect site

125mL	250mL	500mL	1000mL	2000mL	Quantity	Quantity	Quantity	Quantity	Quantity	Air bubbles, nodules, Stone Allowed Total
≤ 4	≤ 4	≤ 6	≤ 6	≤ 7	Sphere	≤ 6	≤ 8	≤ 9	≤ 12	≤ 13

Figure 1 Gas generator

4.3.2 The appearance defects that should not exist shall be in accordance with 4.1.1.2 of JY/T 0423-2011.

4.3.3 Frosted surface. The frosted surface of the connection port and hemispherical port should be uniform and delicate. The width of the light spots and coarse sand marks is less than 4mm, and the length is less than 1/3 of the plug height.

Only two are allowed, and it is not allowed to concentrate in the middle and lower part of the mouth.

4.3.4 The uniformity of wall thickness shall be in accordance with JY/T 0423-2011 Section 4.1.1.

4.3.5 The verticality shall be in accordance with JY/T 0423-2011 Section 4.6.1.

4.4 Chemical stability should meet water resistance HGB level 1, acid resistance H1 level, alkali resistance A2 level.

4.5 Internal stress

The internal stress should not be greater than 180 nm/cm.

4.6 Adhesiveness

Should meet the second level of tightness.

4.7 Pressure resistance should withstand the pressure of 0.4MPa, the pressure difference of 5min will not be destroyed.

4.8 Environmental test the environmental test shall be in accordance with Chapter 8 of JY/T 0423-2011.

5 Test method

5.1 Dimensions are measured with a vernier caliper of 0.02 mm and a steel ruler with a graduation value of 0.5 mm, which shall meet the requirements of 4.2 of this standard.