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JJG

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Replacing JJG 614-1989

**Verification Regulation of Secondary Standard Mercury
Barometers
(English Translation)**

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Second-class standard mercury barometer verification procedure	
1 Scope	

This procedure is applicable to the first verification and subsequent verification of the second-class standard mercury barometer (hereinafter referred to as the standard barometer).

And in-use inspection.

2 terms and units of measure 2.1 tube pressure drop the pressure differential value of the pipe is the standard pressure output port and the standard mercury barometer.

The pressure difference between the sensing surfaces, in hPa.

2.2 Air leak rate

The rate of leakage (rate of the leak gas) is the amount of change in pressure per unit time due to leakage. Unit.

hPa·min⁻¹.

3 Overview

The standard barometer measures the atmospheric pressure by the principle that the gravity of the mercury column in the vacuum glass tube is balanced with the atmospheric pressure.

Forceful. Standard barometers are used for the measurement of atmospheric pressure and the transfer of values. Standard barometer types are classified into plain and high prototype.

4 Metrological performance requirements the corrected value of the measured pressure value of the standard barometer does not exceed ± 0.30 hPa, and the measured pressure value is corrected to the maximum allowable value.

The error is ± 0.20 hPa.

5 General technical requirements

5.1 Appearance

5.1.1 The inner tube of the glass shall be straight and the inner wall shall be smooth and clean, and there shall be no shortage of bubbles, gas wires and stones that may affect the measurement.

The trap should be uniform and the inner diameter should be uniform. The centerline of the upper working section and the lower working section should be coaxial with the centerline of the outer casing.

5.1.2 The ruler line should be clear, the index should be even, and the color should be firm.

The main ruler should match the vernier ruler. The vernier ruler when the zero line of the vernier is aligned with any reticle on the main ruler the tail line should be aligned with the

corresponding score line on the main ruler.

5.1.3 The movement of the vernier scale adjustment mechanism should be flexible and stable, and can stay at any position without loosening or scratching.

Outer tube.

The vernier scale should not swing when you rotate the trim nut. After the adjustment is stopped, there must be no displacement. Ruler support and zero the front and rear edges of the bit window should be flat and in a plane perpendicular to the axis of the outer casing.

5.1.4 The metal outer casing should be straight. The front and rear window holes should be parallel to each other, and the axis of the line and the outer sleeve should be the same in-plane.