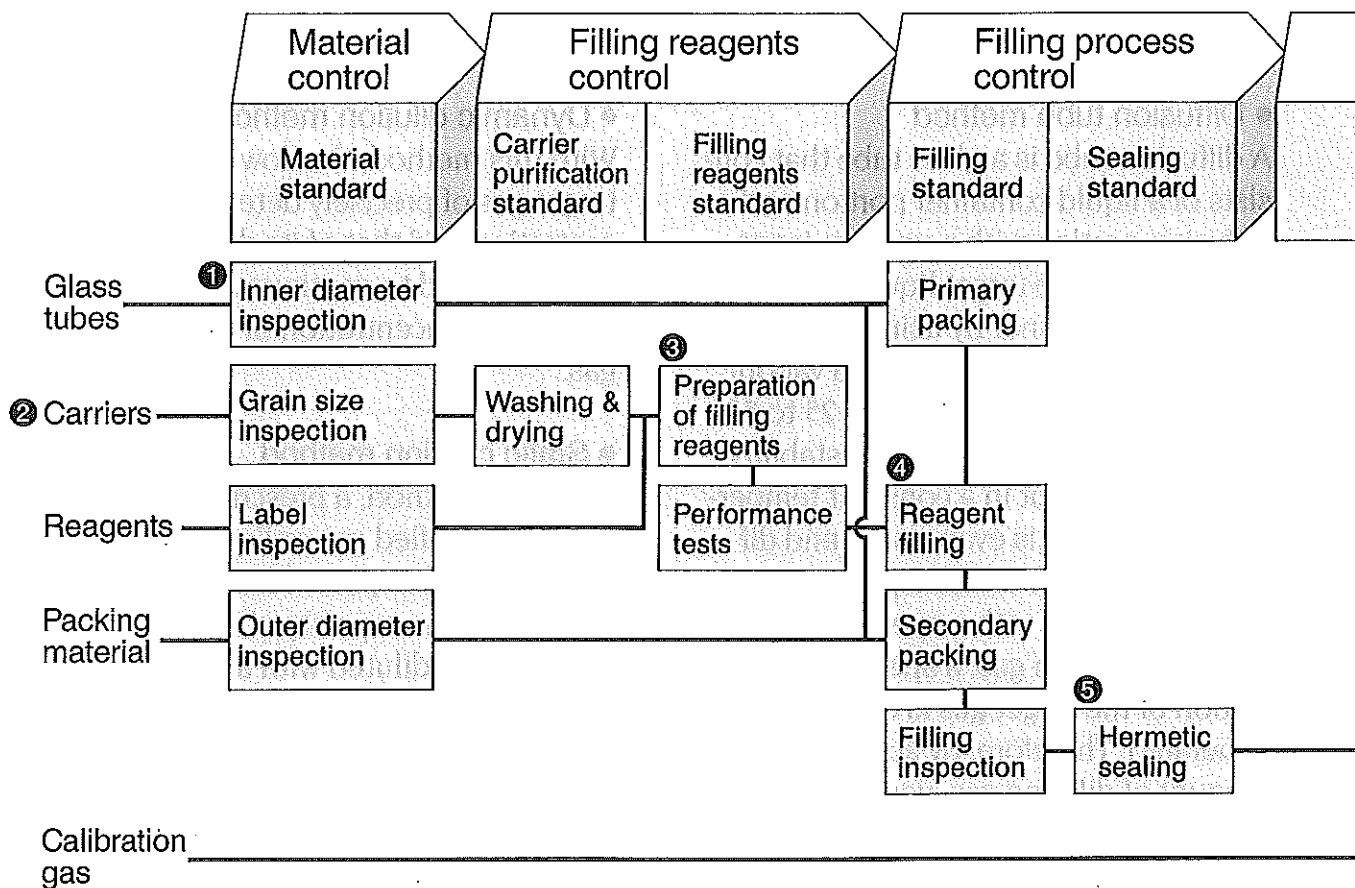


■ Gastec quality control at the production and inspection departments



① Inspection of glass tubes

The fluctuation of inner diameters of detector tubes of the same lot can adversely affect the indication accuracy. At Gastec, incoming glass tubes are carefully inspected in accordance with its severe standard.

② Selection of carriers (grains on which reagents are adsorbed)

The carriers (grains of silica gel, alumina, or silica sand) must be highly purified. At Gastec, a strict standard is observed for the selection of carriers.

③ Preparation of filling reagents

Purified carriers are mixed with a solution of reagent and later dried. A sample of this filling reagent is packed inside

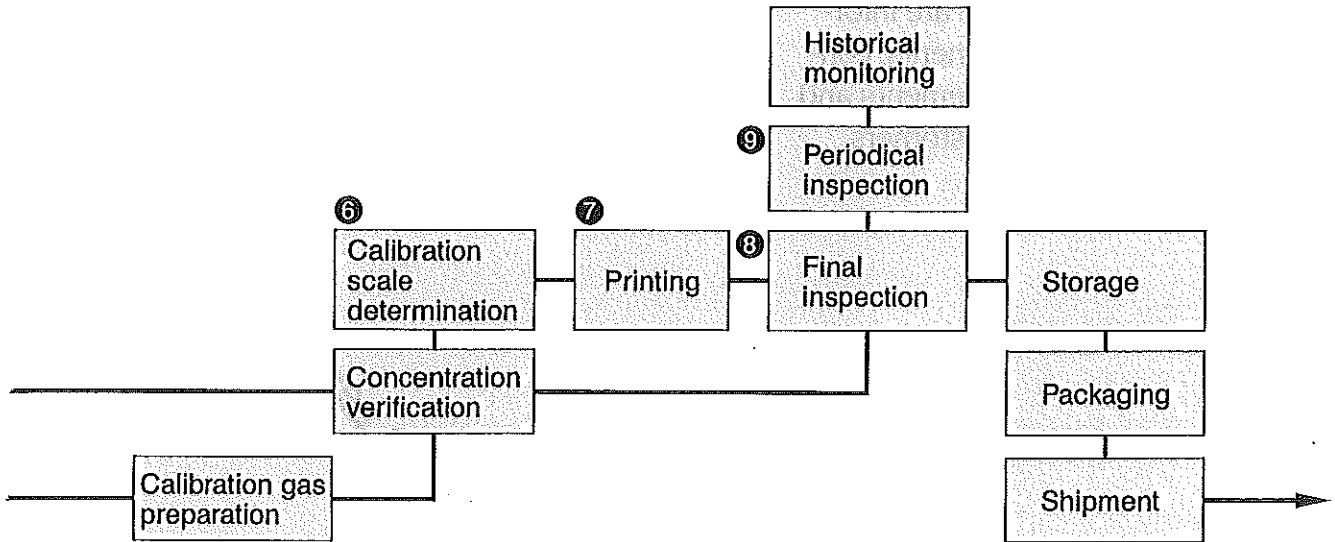
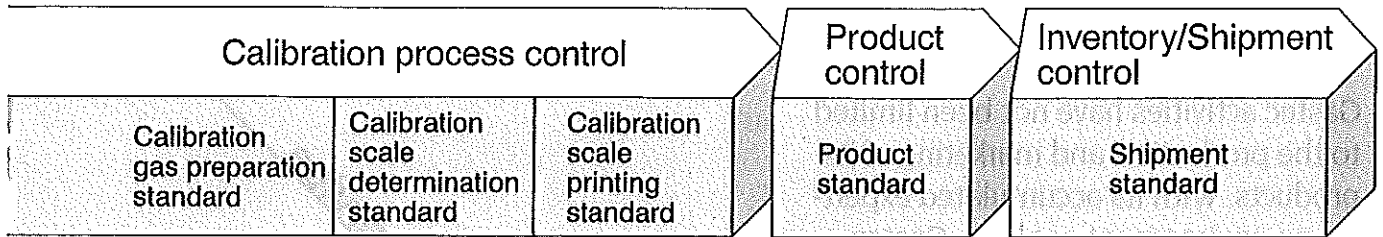
the glass tubes and undergoes the prescribed performance tests. Only the production lots whose samples passed the tests are sent to the next filling process.

④ Filling

Prepared filling reagent (s) are placed inside the glass tube after the primary packing and tightly packed by the secondary packing. Again only those that passed the filling inspection are sent to the next process of hermetic sealing.

⑤ Hermetic sealing

The glass tubes properly filled with the prescribed reagent (s) are hermetically sealed according to the Gastec sealing standard.



⑥ Determination of calibration scale (scale of concentration)

Samples of hermetically sealed detector tubes are selected from the production lot. Both ends of the tubes are broken and calibration gas is sampled. By examining the lengths or tones of the colour change layers, the calibration scale of the tubes is determined and applied to all tubes of the same lot.

⑦ Printing of calibration scale

The calibration scale is accurately printed on the detector tubes of the same lot. Other information such as the substance to be measured, the registered QC numbers, and the number of pump strokes is also printed on the tubes.

⑧ Final inspection

Samples of completed detector tubes are randomly selected. Both ends of the tubes are broken and the calibration gas is sampled to test the performance of the tubes. If they qualify, the detector tubes of that lot are sent for shipment.

⑨ Periodical inspections

Samples of the shipped lots are stored for three years for monitoring. Their performances are periodically inspected, and their histories are recorded for future quality improvements.