

■ Standard sample volume and standard pump strokes

Many Gastec detector tubes are calibrated based on the sample volume of 100 ml. Some tubes, however, are calibrated based on different sample volumes. A sample volume used to determine the calibration scale on a detector tube is called the standard sample volume for the tube, and the number of pump strokes required for collecting the standard sample volume is called the standard pump strokes for the tube.

■ Extension of the measuring range

For most of Gastec detector tubes, if discolouration layers exceed or do not reach the lowest calibration marks in measurements with standard sample volumes, the concentrations outside of the calibration scale can be measured by changing the sample volume.

- **When the discolouration layer does not reach the lowest calibration mark**

Repeat sampling (max. 1000ml by 10 full strokes) until the discolouration layer reaches the lowest calibration mark. In this case, the true concentration should be determined by dividing the tube reading by the pump strokes, or by multiplying a prescribed correction factor.

- **When the discolouration layer exceeds the highest calibration mark**

Replace the tube with a fresh one, and sample with half of the standard volume. If the discolouration layer stays within the highest calibration mark, the tube reading should be doubled or multiplied by a prescribed correction factor to determine the true concentration.

Note: Information about adjustable sample volumes and correction methods of tube readings will be described in the instruction sheets for individual detector tubes.