



# Technical Note #106

## Gastec GV-100 Pump Information

The Gastec GV-100 pump has many features and benefits; included are tips for maintenance of the GV-100 pump.

### Intro:

Packed with features, the SEI-certified piston-type Gastec Gas Sampling Pump is the only pump you need. It eliminates the risk of partial samples, displays ambient temperature, never needs calibration, and includes a lifetime warranty\*. The Gastec Detector Tube and Pump System has been designed specifically with the end user in mind to allow for ease of use without compromising safety.

Weighing only 8 ounces (226.8 grams), the intrinsically safe pump can easily be transported to any test site. The pump body is contoured and covered with a soft elastomer for a comfortable, secure grip. The exterior of the pump is composed of a durable and non-corrosive plastic and synthetic rubber compound, effectively eliminating any risk of sparks should the pump be accidentally dropped in an explosive environment. The pump incorporates a built-in detector tube tip breaker with a durable diamond cutting edge. Discarded tips are captured in a storage bin for easy disposal.

The fail-safe handle can be locked into two positions: the full stroke position for a sample volume of 100 ml or the half stroke position for a sample volume of 50 ml. Both positions are marked by means of an unambiguous red line thereby eliminating the chance of taking an incomplete pump stroke. The flow finish indicator is conveniently located in the handle to ensure rapid and precise sampling and to eliminate the need to time the sample. The small diameter of the pump piston allows it to be pulled out with less effort than many competitors' pumps.

The Gastec Gas Sampling Pump is the first and only gas sampling pump to provide on-the-spot measurement of ambient temperature. Nextteq's patented Thermal Ring is a paper-thin innovation encircling the base of the Gastec Gas Sampling Pump that accurately displays ambient temperature. The Thermal Ring saves time and reduces the risk of error by enabling users to conveniently correct for temperature variances on the spot.

The pump is offered in two kits:

1. **GV-100-S-TR**  
Gas sampling pump (Gastec model GV-100-S-TR) with carrying case, 3 rubber tube holders with filters, lubricant, Thermal Ring, 500-page Gastec Detector Tube Handbook, 27-page Operation Manual, and Accessories Brochure
2. **GV-100-SOHA-TR (with one-hand adapter)**  
Gas sampling pump (Gastec model GV-100-S-TR) with carrying case, 3 rubber tube holders with filters, lubricant, one-hand adapter, Thermal Ring, 500-page Gastec Detector Tube Handbook, 27-page Operation Manual, and Accessories Brochure

\* Terms and conditions apply.

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### Features of Pump

- A. Pump Tip Flange - Easy and secure tube insertion technique using a rubber flange that firmly holds all Gastec tube sizes for leak-proof sampling.
- B. Integrated Tube Tip Breaker - The tube tip breaker comes equipped with a diamond blade and a storage receptacle to ensure easy and clean cutting with no hazardous glass fragments and convenient safe storage prior to final disposal.
- C. Firm-grip, Explosion-proof Casing - The ergonomically designed, slender, and tapered pump body—encased in a non-slip synthetic-rubber sheath—enables the pump to be held securely and comfortably even with wet gloves. The sturdy construction is not only rugged and corrosion-resistant, but will not give off any sparks if dropped.
- D. Alignment Markings - Clear alignment marking on the handle, shaft, and body facilitate effortless, accurate, and effective sampling.
- E. Fail-safe Piston Handle - The fail-safe, easy-to-pull handle locks into two positions (100 ml and 50 ml), denoted by clear alignment markings on shaft and body for accurate and complete sampling.
- F. Flow Finish Indicator - For added precision and operating convenience, a practical flow-finish indicator is mounted in the handle for easy viewing while sampling. A white disc located in a viewing lens automatically becomes visible to signal completion of a sampling stroke.
- G. Thermal Ring - This paper-thin innovation encircling the base of Gastec Gas Sampling Pumps is conveniently located for view but is out of the way. The thermal ring accurately displays ambient temperature, saves time, and reduces the risk of error by enabling users to correct for temperature variances on the spot.



### Maintenance Tips:

1. Do not modify the Model GV-100 Gas Sampling Pump. Tampering with the pump may invalidate warranty conditions and could result in erroneous readings.
2. Do not disassemble the head block or flow finish indicator. If disassembled, an air leak might result; this could result in erroneous readings and may invalidate warranty conditions.
3. Use only genuine Gastec spare parts from Nextteq. Use of non-genuine Gastec components may invalidate warranty conditions. Major causes of air leaks are a loosened inlet clamping nut, a damaged or deteriorated rubber inlet, and discolored or insufficient lubricant.

For troubleshooting assistance, please call Nextteq at 1-877-312-2333 or consult your Gastec Detector Tube Handbook.

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