



Comparison Chart: How Does Gastec's GV-100 Pump and Tube System Compare to Draeger CMS?

	Gastec GV-100	Draeger CMS
Fast response time?	YES	NO
	Many Gastec tubes complete sampling in one minute or less; at higher concentrations they may complete sampling even faster.	Draeger's CMS draws 15 ml per minute for a sampling time of two minutes on average. In addition to the two-minute sampling time, the CMS must go through a self-diagnostic test and a leak check to ensure an airtight fit before each test to guarantee sensitivity.
Usable with the full range of detector tube applications?	YES	NO
	Gastec offers over 600 applications; over 90% of Gastec tubes use the GV-100 pump.	Draeger chip substrates are not available for many Draeger detector tube applications. The CMS has far fewer applications than the Gastec GV-100 system and is not designed to work with dual tube or filter tube applications.
Low maintenance?	YES	NO
	Gastec's GV-100 system is a volumetric mechanical pump and tube system with only a few moving parts, no springs or electrical components, and no need for pump calibration.	Draeger's CMS will require routine lamp replacement, as well as electric pump calibration and battery replacement. In addition, because of the motorized moving parts, electronic diaphragm pump, and other electronics, the maintenance will be far more extensive, time-consuming, and expensive.
Ready to use at any time, anywhere, in any emergency?	YES	NO
	The Gastec GV-100 system is manually operated and always ready for use in an emergency.	Draeger's system requires disposable batteries. If the batteries are dead, the device is not usable.
Tests available for separate site analysis?	YES	NO
	Gastec tubes come in a box of 10. One box of tubes can be divided among 10 workers to sample 10 different areas at the same time for faster screening at lower cost than the Draeger CMS chip.	Each Draeger chip includes 10 tests, but the tests cannot be divided among 10 CMS units. To test 10 locations at the same time, 10 chip sets of 10 tests each (100 tests) would have to be purchased, compared to just one box of Gastec tubes (10 tests). Draeger's design prevents rapid simultaneous testing in emergencies.
Usable with the full range of accessories?	YES	NO
	All Gastec accessories are compatible with the Gastec GV-100 system.	Many Draeger accessories, such as the hot probe, soil probe, tube manifold, and extension pole, are not compatible with the Draeger CMS.

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Accuracy degrades if extension hose is used?	NO	YES
		<p>The Gastec extension hose positions the tube at the end of the extension hose closest to the target analyte. When the piston is pulled back, ambient air goes into the tube immediately. The Gastec tube samples the ambient air directly without any pre-conditioning or potential contamination.</p>
Flushing required if used with an extension hose?	NO	YES
	<p>Gastec's extension hose does not require flushing. The tube is located at the tip of the extension hose in direct contact with the ambient environment. The sample is not drawn through the extension hose, so there is no risk of degrading the sample.</p>	<p>If an extension hose is used with the Draeger CMS, an additional 1-3 minutes of flushing is required to remove even trace levels of contaminants. Higher concentrations of contaminants require more time to flush the extension hose. Draeger's CMS has far less filtering capabilities to remove interfering contaminants.</p>