


GASTEC


Chapter 5

Gastec Applied Detector Tube Systems for Ground or Water Analysis

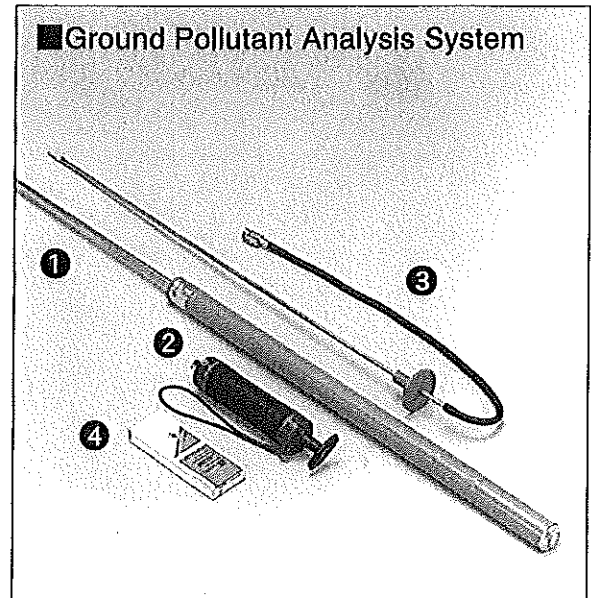
To preserve our environment, pollutants of not only air but also ground and water should be carefully investigated to take effective counter-measures. Gastec applied detector tube systems for ground or water analysis provide accurate, easy, and economical means for a primary research of these pollutants.

Ground Pollutant Analysis System

When organic solvents in industrial waste water are introduced into the ground, they will cause serious ecological problems by contaminating the soil and ground water. The Gastec Ground Pollutant Analysis System is very useful for investigating ground contamination quickly, easily, and economically. Accurate measurements can be done without specialist skills.

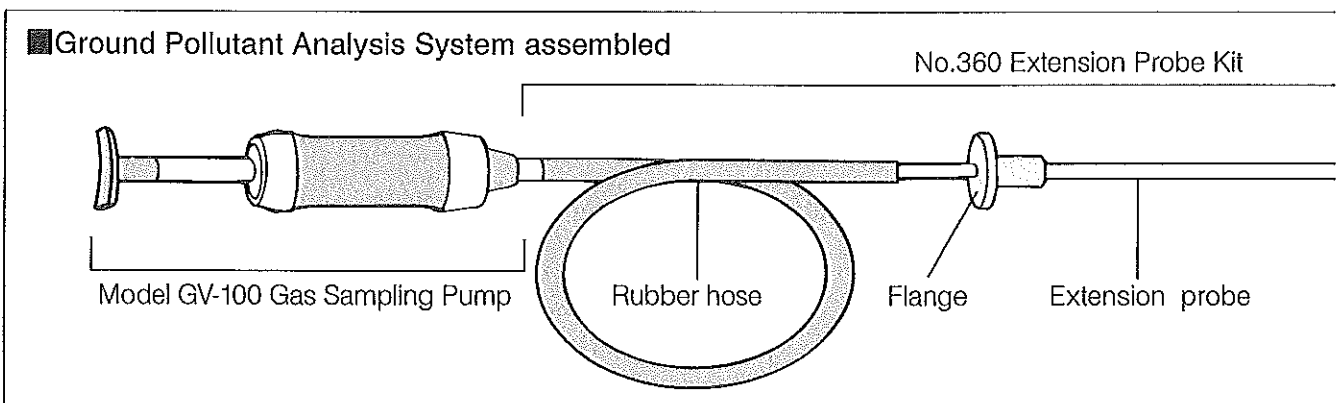
• Features

- Manual boring for powerless operation.
- Quick measurements (less than 3 minutes including boring time)
- Accurate pollution maps can be prepared by grid measurements.
- A wide assortment of pollutants can be measured by changing detector tubes.



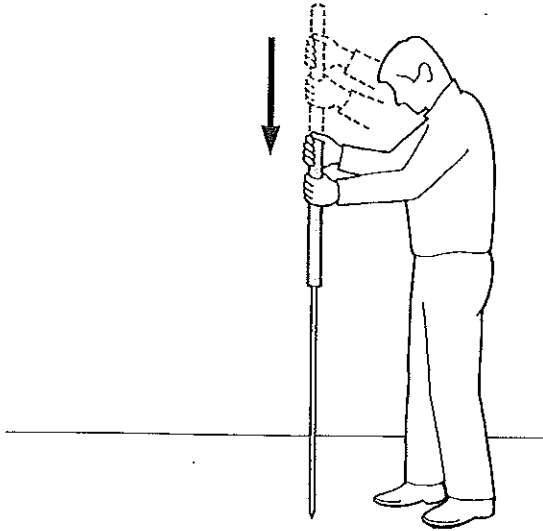
■ Ground Pollutant Analysis System configuration

Components	Quantity	Remarks
No.361 Boring Pole Kit (Photo ①)	1	Diameter : 155mm (6.1 in) Length: 1500 to 1900mm (59 to 74 in) Weight: 3.7 kg (8.1 lb)
Model GV-100S Gas Sampling Pump Kit (Photo ②)	1	See page 1-2
No.360 Extension Probe Kit (Photo ③)	1	Length: 1330mm (52 in). With flange.
Standard detector tubes (Photo ④)	Optional	19 kinds are available

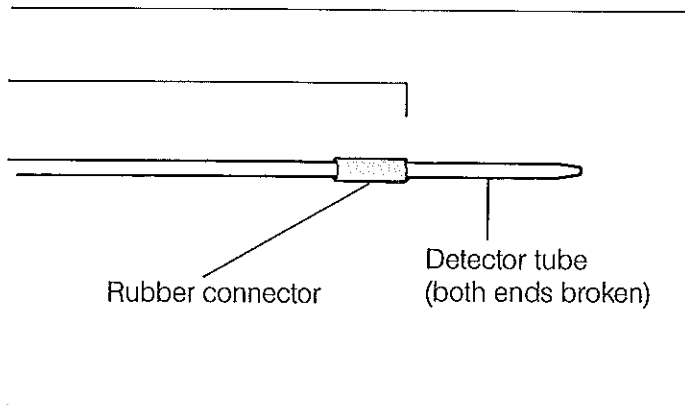


■ Measurement procedure

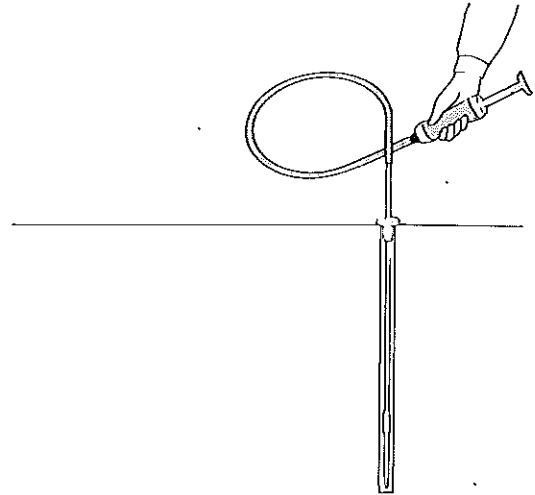
- ① Make a bore hole of approximately 850mm (33.5 in) in depth by using the boring pole.



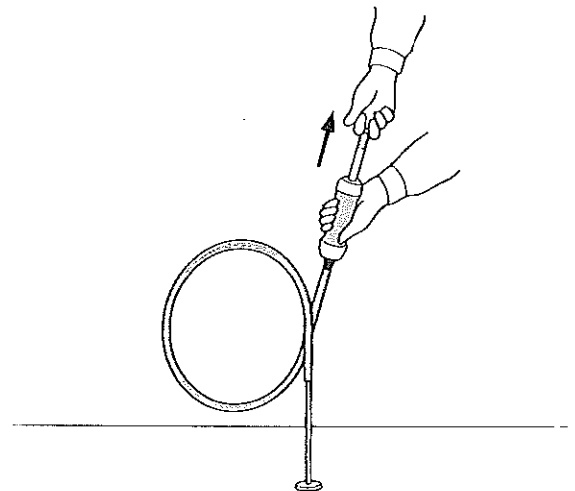
- ② Assemble the system.
Connect the Model GV-100 Gas Sampling Pump with the No. 360 Extension Probe, and break off both ends of the detector tube to connect it as illustrated below.



- ③ Insert the system into the bore until the end of the detector tube reaches the bottom of the bore, and cover the entrance of the bore with the flange.



- ④ Pull the handle of the Gas Sampling Pump and read the tube after the prescribed sampling time has elapsed.



**Substances to be measured and
Gastec standard detector tubes to be used**

Substance	Detector tube No.	Measuring range	Refer to
Benzene	121S	2 to 312 ppm	page 2-32
	121	2.5 to 120 ppm	page 2-33
	121SL	1 to 100 ppm	page 2-34
	121L	0.1 to 65 ppm	page 2-35
Carbon tetrachloride	134	0.5 to 60 ppm	page 2-66
1,2-Dichloroethylene	132LL	0.375 to 6 ppm	page 2-218
Gasoline	101L	30 to 2000 ppm	page 2-108
Tetrachloroethylene (perchloroethylene)	133M	2 to 250 ppm	page 2-203
	133L	1 to 75 ppm	page 2-204
	133LL	0.1 to 9 ppm	page 2-205
Toluene	122	5 to 690 ppm	page 2-210
	122L	1 to 100 ppm	page 2-211
1,1,1-Trichloroethane	135L	6 to 900 ppm	page 2-213
Trichloroethylene	132HH	0.05 to 2.5 %	page 2-214
	132HA	20 to 1300 ppm	page 2-215
	132M	2 to 250 ppm	page 2-216
	132L	1 to 70 ppm	page 2-217
	132LL	0.125 to 8.8 ppm	page 2-218
Xylene	123	5 to 625 ppm	page 2-229