

INSTRUCTION MANUAL for
Extension Sampling Pole
Model No.350BP-2

Gastec Corporation
8-8-6 Fukayanaka, Ayase-City, Kanagawa, 252-1195
Japan
TEL.0467-79-3910 FAX.0467-79-3979




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1. Introduction

This is the instruction manual for Extension Sampling Pole Model No.350BP-2.



Read this instruction manual and the instruction manual of Gastec Gas Detector Tube System thoroughly before using this product and keep them for future reference.

In this instruction manual, for safe and proper operation, the precaution symbols are used as defined below:

| | |
|--|--|
|  WARNING | If not observed, serious bodily injuries or death may result. |
|  CAUTION | If not observed, minor or moderate bodily injuries may result. |
|  NOTE | Operational tips for proper use of the product to prevent functional failures. |

2. Safety Instruction

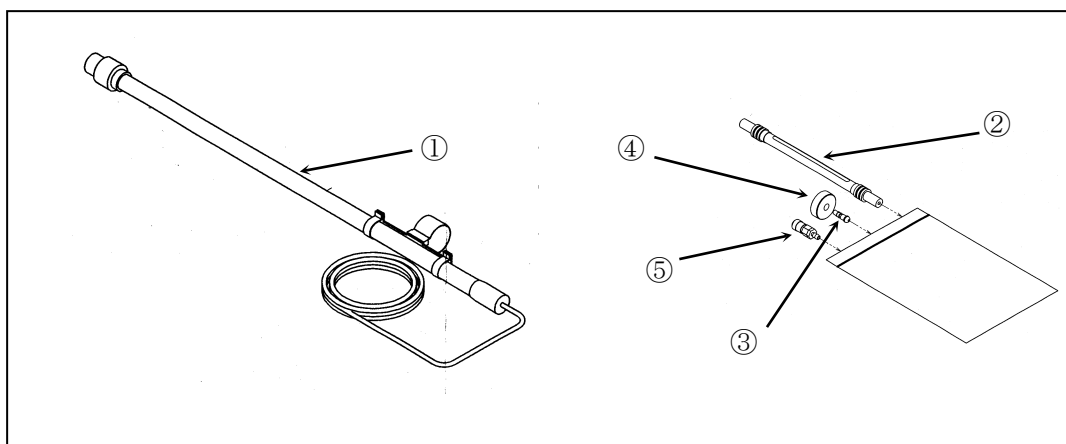
Read these safety instructions and safety instructions written in the instruction manual of Gastec Gas Detector Tube System carefully before using this product for safe operation.

| | |
|--|---|
|  WARNING | <ul style="list-style-type: none"> ● Do NOT use this product nearby electric wires. This product conducts electricity when it is wet. ● Do NOT use this product when thundering. |
|  CAUTION | <ul style="list-style-type: none"> ● Do NOT direct the tip of the pole toward a person. This may cause injuries. ● When performing airtightness test of the sampling pump, Do NOT direct the tip of the detector tube toward a person. Also, be sure to guide the handle back gradually by applying a little resistance when handle is unlocked. Otherwise, the handle will spring back due to the vacuum in the pump cylinder. These may cause injuries and damage the pump. ● Keep away from eyes when breaking the tube ends. Do NOT touch the broken glass tubes, pieces, and reagent with bare hand(s). If reagent comes in contact with your skin, immediately rinse the area with water. If you do get a piece of glass or reagent in your eyes, do not rub your eyes with your hands. Immediately rinse your eyes with plenty of water and see a doctor. |

3. List of Components

Extension Sampling Pole Model No.350BP-2 contains the following items.

| | Items | Qty. |
|---|----------------|------|
| ① | Extension Pole | 1 |
| ② | Rubber Shroud | 1 |
| ③ | Hose End | 1 |
| ④ | Joint Nut | 1 |
| ⑤ | Auto Joint | 1 |



4. Product Overview

Model 350BP-2 Extension Sampling Pole is designed to sample substances of overhead and / or horizontal spaces where the hazardous substances may be generated and sample collection is required prior to entry.

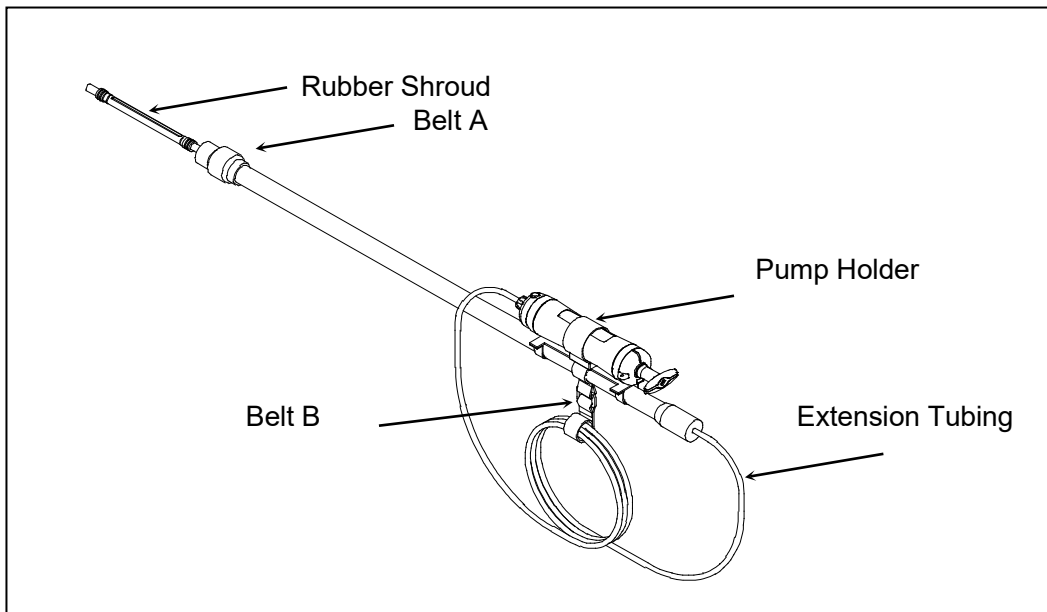
The Extension Pole is made of glass fiber which contains carbon, and it features light weight (590 grams) of 62.5 cm long and convenient to operate maximum 2.8 meters distance location where normal gas sampling methods can not be performed.

5. Function Description

- Extension Pole : Maximum 2.8 meters long and can be used for horizontal and vertical directions.
- Rubber Shroud : It is used to attach the detector tube to the extension pole and protect the detector tube.
- Hose End : It is used to connect the extension tubing to Gastec gas detectors, GOH-1A, GOC-1A, etc.

- Joint Nut : It is used to connect the extension tubing to Gastec gas detectors, GOH-1A, GOC-1A, etc.
- Auto Joint : It is used to connect the extension tubing to Gastec gas detectors, GOM-3A, MA-2510, MA-0510, etc.
- Belt A : When this pole is used with Gastec diffusion type gas detector, the sensor head can be fixed with this belt.
- Belt B : Bundle the excess length of the extension tubing.
- Pump Holder : Can fix the gas sampling pump body.

*Gastec gas detectors may not be sold depending on countries and regions.

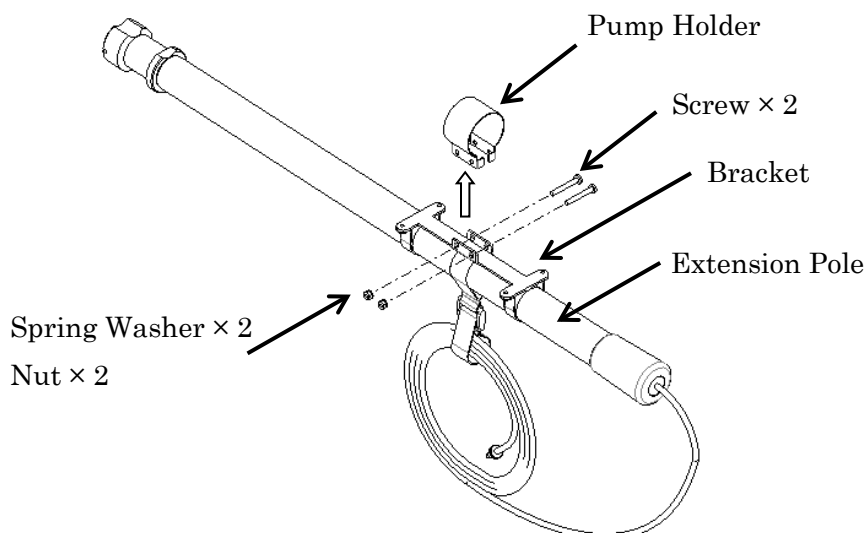


6. Operating Procedure

6.1 Fixing Sampling Pump to Extension Pole (When Using Detector Tube)

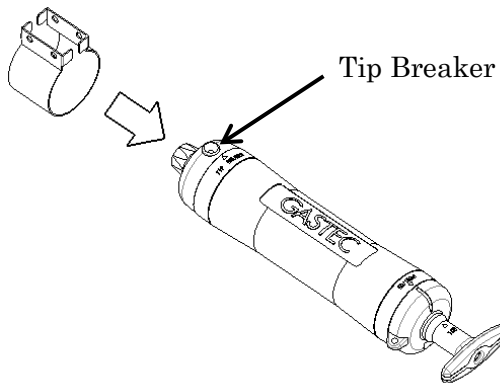
(1) Take the pump holder off from the bracket.

Unscrew and remove the screws. Pull the pump holder up.

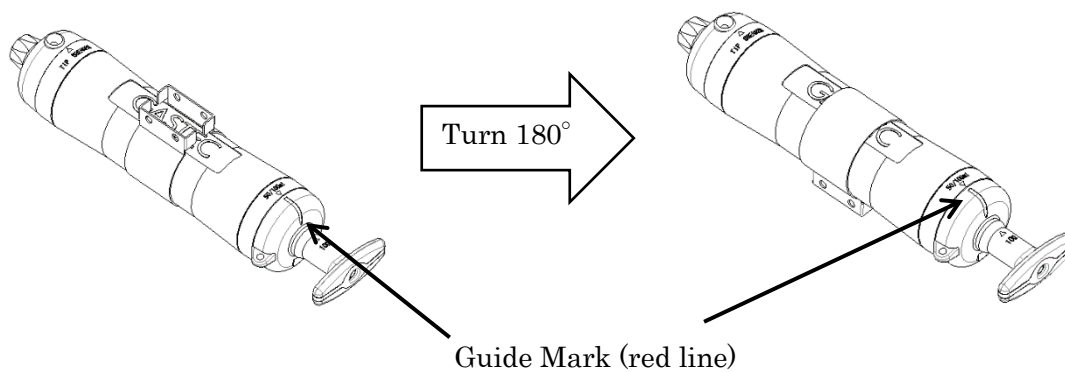


(2) Attach the pump holder to the sampling pump.

- Attach the pump holder from the inlet side of the sampling pump.
 - *Align the open side of the pump holder and the tip breaker of the sampling pump to avoid the pump holder from getting stuck. Do not widen the pump holder too much.

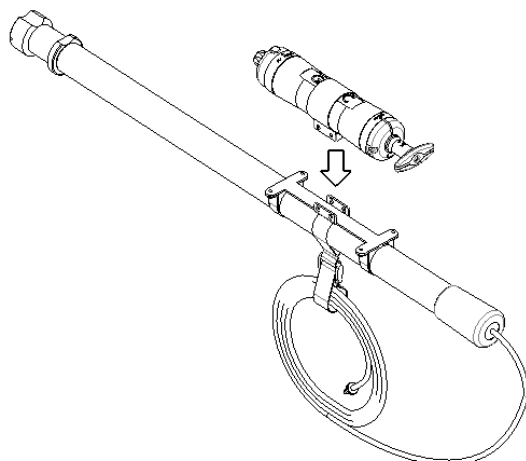


- Set the pump holder at the middle of the sampling pump body and turn the sampling pump 180 degree as the guide mark (red line) can be easily seen.

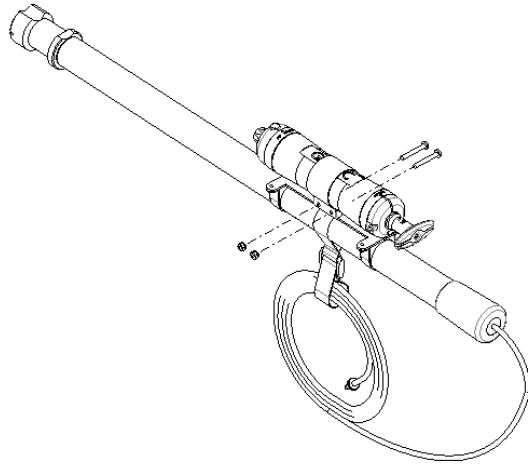


(3) Attach to the bracket

- Attach the pump holder to the bracket from directly above.



- Fix the pump holder to the bracket using the screws, spring washers, and nuts.
- *Tighten the screws temporarily to adjust the position before fully tighten them.



6.2 When Using Detector Tubes

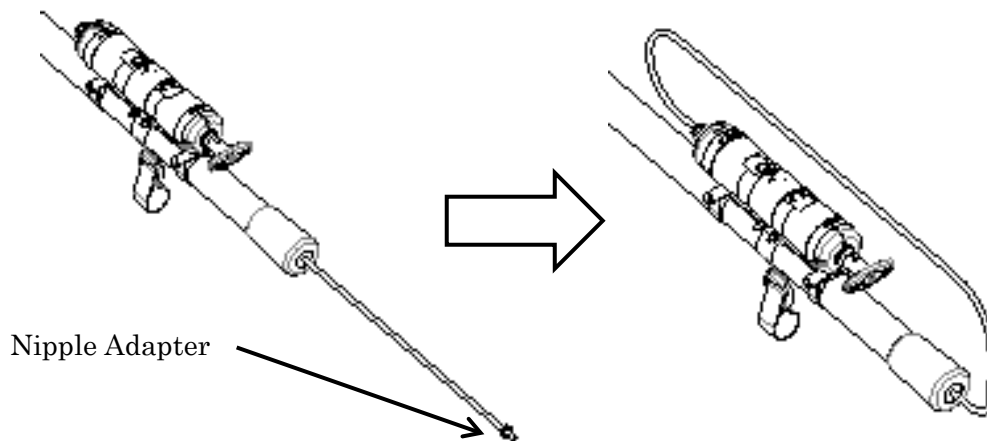
- (1) Prepare the detector tube. Select the detector tube that suits your purpose and check the specifications of the detector tube.
 - Expiry date, number of pump strokes, presence or absence of pretreatment tube.
 - If there is interference gas, check how its concentration affects the detector tube.

| | |
|--------------|---|
| △NOTE | Check the storage temperature and expiration date of the detector tube to be used before use. |
|--------------|---|

- (2) Check the airtightness of the sampling pump.

When the sampling pump is not attached to the extension pole, check the airtightness of the sampling pump according to the instruction manual of the sampling pump before attaching it to the extension pole.
- (3) Attach the sampling pump on the extension pole.

After confirming the airtightness of the sampling pump, attach it on the extension sampling pole according to "6.1 Fixing Sampling Pump to Extension Pole".
- (4) Insert the nipple adapter at the tip of the extension tubing into the inlet rubber of the sampling pump.



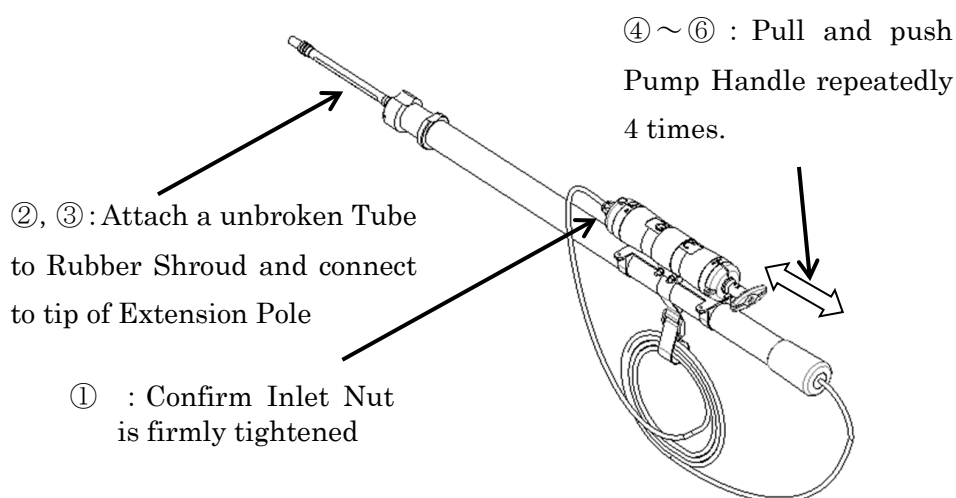
(5) Check the airtightness of the sampling pump and the extension pole.


When the sampling pump is already fixed to the extension pole, check the airtightness according to the following procedures.

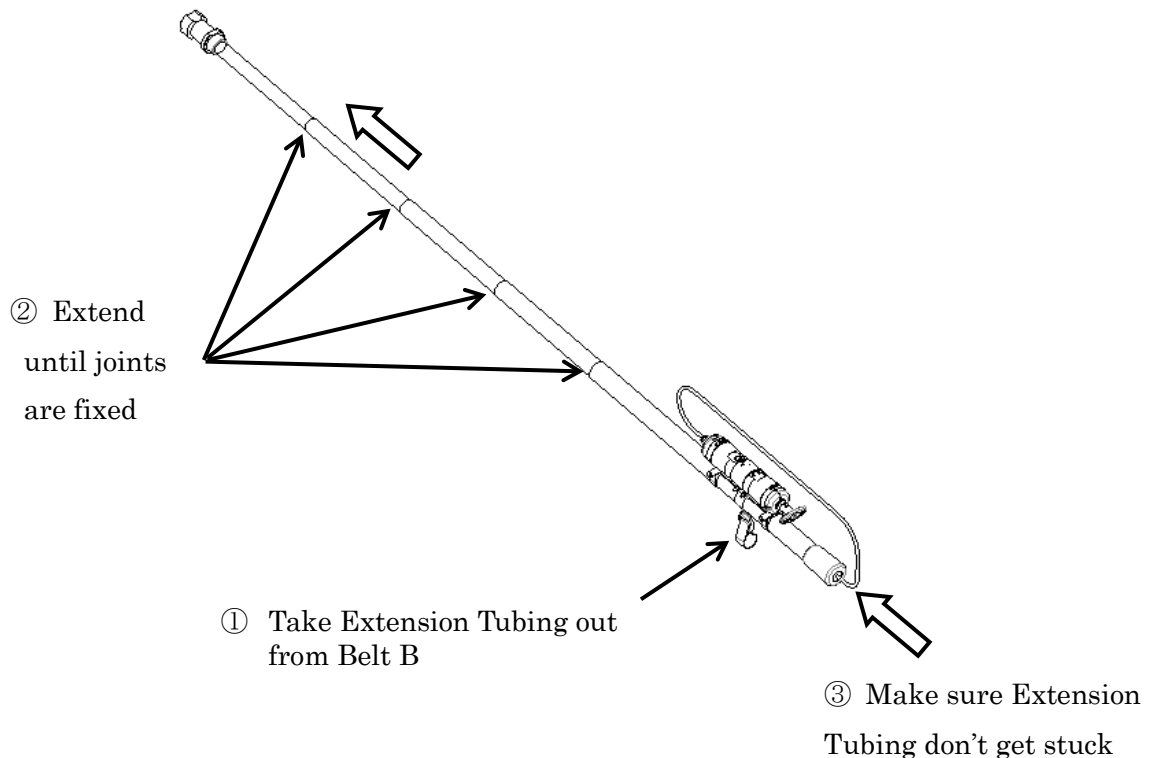
- ① Confirm the inlet nut of the sampling pump is firmly tightened.
- ② Attach the unbroken detector tube to the rubber shroud.
- ③ Connect the rubber shroud to the tip of the extension pole.
- ④ Confirm the pump handle is fully in. Align the guide mark (red line) on the back plate and guide mark (▲100) on the handle.
- ⑤ Pull out the handle fully along the guide line of the shaft until it is locked.
- ⑥ When checking the airtightness of the sampling pump alone, wait for 1 minute after ⑤.

But when the extension pole is connected, the volume of the extension tubing is also related. Repeat ④ and ⑤ 4 times. At 4th time of ⑤, lock the pump handle and wait for 1 minute.

- ⑦ After 1 minute, unlock the handle by turning it more than 1/4 turn and guide it back gradually. Confirm the handle returns to its original position. At this time, if the guide line of the shaft cannot be seen, it can be confirmed that the airtightness is good, so move on to (6).
- ⑧ If the pump handle doesn't return to its original position in ⑦, check the airtightness of the sampling pump alone according to the instruction manual of the sampling pump.
- ⑨ If it can be confirmed that the airtightness of sampling pump alone is good in ⑧, it is suspected that there is a problem with the airtightness of the extension pole, so please contact your Gastec representatives for repair.



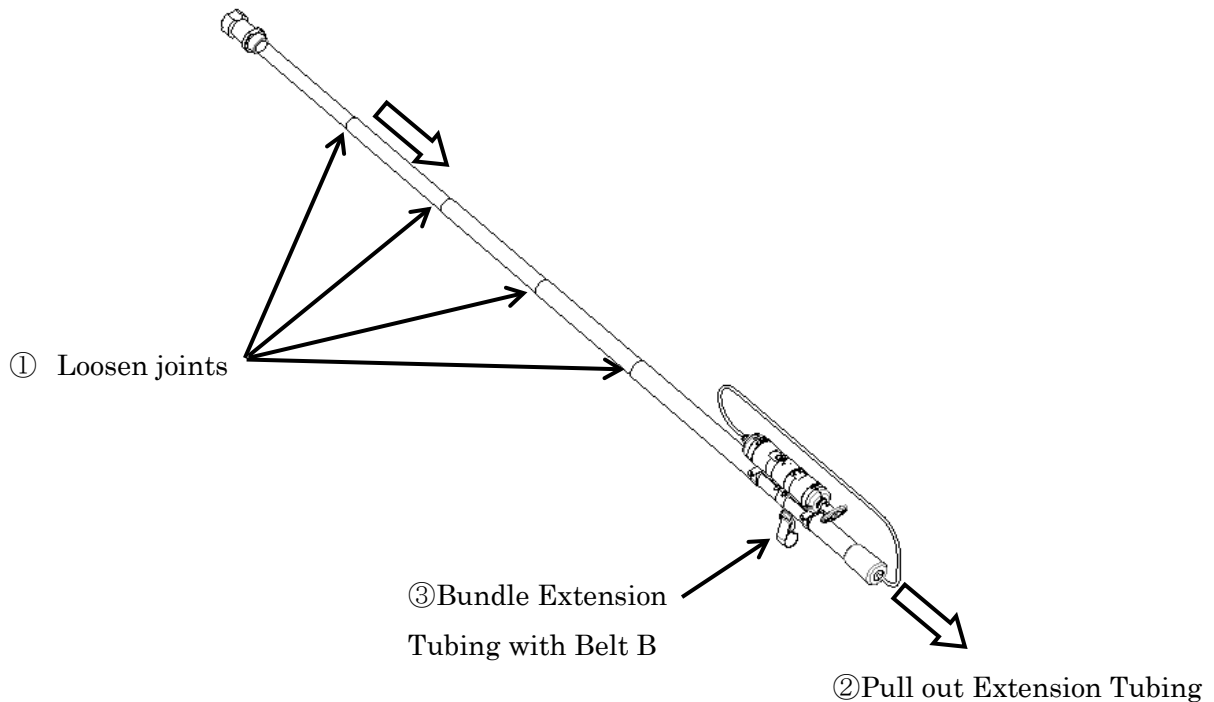
- (6) Break off both ends of the detector tube by using the tip breaker.
- (7) Attach the detector tube to the rubber shroud.
- (8) Make sure that the arrow () on the detector tube is pointing toward the sampling pump and the detector tube is firmly attached.
- (9) Extend the extension pole.
 - ① Take the extension tubing out from Belt B.
 - ② Extend until the joints are certainly fixed.
 - ③ When extending the extension pole, make sure the extension tubing don't get stuck.



- (10) Keep the detector tube stable as much as possible. Confirm the pump handle is fully in. Align the guide mark (red line) on the back plate and guide mark (▲100 or ▲50) on the handle. Pull out the handle fully along the guide line until it is locked. Wait until the sampling time has elapsed.
- (11) Check the completion of the sampling of 100 mL or 50 mL by the flow finish indicator on the handle.
- (12) Remove the detector tube from the sampling pump, and immediately read the scale at the end of color change layer.
- (13) If the tube reading requires correction, correct the tube reading in order of temperature, humidity, number of pump strokes, and ambient pressure.

(14) Fold the extension pole.

- ① Loosen each joint.
- ② Fold the extension pole pulling out the extension tubing to prevent it from getting stuck inside the pole.
- ③ Bundle the extension tubing with Belt B.



6.3 When Using Pump Type Gas Detector

- (1) Prepare the pump type gas detector. Follow the instruction manual of your gas detector for preparation and operation.
- (2) Remove the nipple adapter at the tip of the extension tubing, and connect the extension tubing to the gas detector using the hose end and joint nut for GOH-1A, GOC-1A, etc., or using the auto joint for GOM-3A, MA2510, MA0510, etc.
- (3) Extend the extension pole to the measurement point, keep the tip of the extension pole stable as much as possible, and measure the gas concentration.

See 6.2 (9) and 6.2 (14) for extension and contraction of the extension pole.

*The pump type gas detectors may not be sold depending on countries and regions.

6.4 When Using Diffusion Type Gas Detector (with Sensor Extension Cable)

- (1) Prepare the diffusion type gas detector. Follow the instruction manual of your gas detector for preparation and operation.
- (2) Fix the sensor head to the extension pole with belt A.
- (3) Extend the extension pole to the measurement point, keep the tip of the extension pole stable as much as possible, and measure the gas concentration.

See 6.2 (9) and 6.2 (14) for extension and contraction of the extension pole.

*The diffusion type gas detectors may not be sold depending on countries and regions.

7. Instructions on disposal

Follow the rules and regulations of the local government when disposing the detector tubes and sensors. The instructions on disposal is described in the instruction manual of the detector tube and gas detector.

8. Warranty

If you have any questions regarding quality of the product, please feel free to contact your Gastec representatives.

9. After Sale Service

If the product needs to be repaired, please contact your Gastec representatives.

Manufacturer: Gastec Corporation
8-8-6 Fukayanaka, Ayase-City, Kanagawa 252-1195, Japan
<https://www.gastec.co.jp/>
international@gastec.co.jp
Telephone +81-467-79-3910 Facsimile +81-467-79-3979

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