

INSTRUCTION MANUAL

RUBBER EXTENSION HOSE

FOR KITAGAWA GAS ASPIRATING PUMP AP-20, AP-20S, 400B

MODEL SH-5N (5m) / SH-10N (10m) / SH-12N (12m)

★ READ CAREFULLY THIS INSTRUCTION MANUAL AND INSTRUCTIONS OF EACH DETECTOR TUBE AND ASPIRATING PUMP (MODEL AP-20, AP-20S, 400B) PRIOR TO USING THIS PRODUCT.

1. PREFACE:

A rubber extension hose is available to remotely measure gases at dangerous places where toxic gases may accumulate, such as a man-hole, a tank etc. and narrow and inaccessible places for workers to enter.

⚠ CAUTION ON USE OF THE RUBBER EXTENSION HOSE

1. WHEN USING THE RUBBER EXTENSION HOSE, CARRY OUT AIR LEAKAGE TEST OF THE ASPIRATING PUMP WITH THIS HOSE CONNECTED.
2. WHEN USING THE ASPIRATING PUMP WITH THE RUBBER EXTENSION HOSE, IT REQUIRES LONGER TIME TO COMPLETE SAMPLING. ACCORDINGLY CONFIRM COMPLETION OF SAMPLING AS FOLLOWS:
 - TURN THE HANDLE BY 90 DEGREES CLOCKWISE OR COUNTERCLOCKWISE IN ORDER TO UNLOCK THE HANDLE AFTER COMPLETION OF GAS SAMPLING. AT THIS MOMENT, CONFIRM THAT THE HANDLE REMAINS AS UN-RETURNED. (IF THE SHAFT RETURNS BY 3 mL OR BELOW, IT IS WITHIN ALLOWABLE ERROR.)
 - IN CASE THAT THE SHAFT RETURNS BY MORE THAN 3 mL, PULL THE HANDLE AGAIN FROM THAT POSITION AND LEAVE IT FOR A WHILE AS IT IS LOCKED. THEN, CONFIRM COMPLETION OF SAMPLING AGAIN.
3. WHEN THE TOP OF THE RUBBER EXTENSION HOSE IS PUT IN A DARK PLACE SUCH AS A MANHOLE OR A CULVERT ETC., PAY ATTENTION NOT TO DRAW WATER WHICH MAY STAY AT THE BOTTOM.

2. HOW TO USE:

1. Remove the rubber tube holder and rubber tube connector from the detector tube connecting part of an aspirating pump and connect the rubber extension hose with the pump as shown in Fig.1.
2. Before making measurement, carry out the leakage test (REFER TO ITEM 3. PROCEDURE FOR LEAKAGE TEST).
3. Break both ends of the detector tube.
4. Remove the cap on the tip of the protector tube and insert the detector tube into the protection tube of the rubber extension hose (Arrow mark shall point to the hose.), then fix the cap firmly.
5. Put the detector tube part in a sampling point and make measurement in accordance with instruction manuals of the aspirating pump and the detector tube.

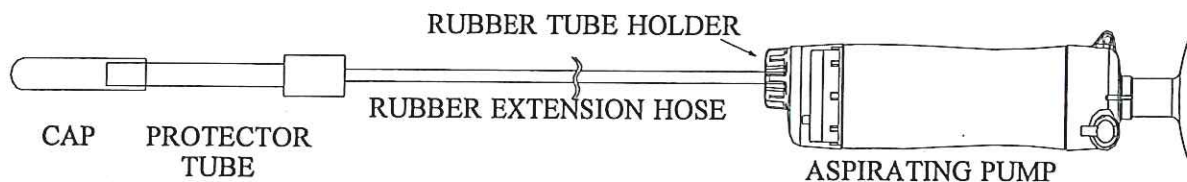


Fig.1

3. PROCEDURE FOR LEAKAGE TEST:

1. Insert a sealed, unbroken detector tube into the protection tube of the rubber extension hose as shown in Fig.1.
2. Align the red line on the bottom case and the shaft of the pump.
Pull the handle of the aspirating pump to a full stroke until it locks and wait for several seconds with locking the shaft. Unlock the handle and push back the handle. Repeat this operation for 4 to 5 times, then pull the handle to a full stroke to the locked position and leave it as it is for three minutes.
(Note) When unlocking the handle under a vacuum condition, release the lock little by little with holding the handle by finger.
3. Unlock the handle and confirm that it returns completely to the original position shown in Fig.2.
(It takes time for the handle to return completely.)

In case that the handle does not return completely as shown in Fig.3, air leakage may exist. Confirm if wear and/or tear of the rubber extension hose occur. If it is good in condition, the leakage may be caused by looseness of the rubber tube holder and/or consumption of vacuum grease, therefore take suitable measures in accordance with the section "Maintenance" in the instruction manual of the aspirating pump.

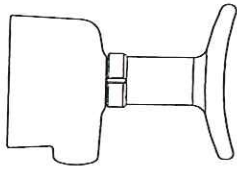


Fig.2 Normal State

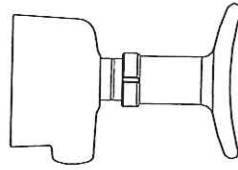


Fig.3 Leakage State

4. DISPOSAL OF PRODUCT:

THE RUBBER EXTENSION HOSE SHOULD BE DISPOSED CAREFULLY ACCORDING TO RELEVANT REGULATIONS, IF ANY.

5. USER RESPONSIBILITY:

It is the sole responsibility of the user of this equipment to ensure that the equipment is operated, maintained and repaired in strict accordance with these instructions and the instructions provided with AP-20, AP-20S, 400B aspirating pump and each gas detector tube.

The Manufacturer and Manufacturer's Distributors shall not be otherwise liable for any incorrect measurement or any damages, whether damages result from negligence or otherwise.

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