

# UNIPHOS AIR SAMPLING PUMP

## MODEL: ASP- 11

### (User Manual)

The UNIPHOS gas detector consists of two parts viz. i) the gas detector tubes and ii) a piston and barrel type air sampling pump (ASP-11). Together they form the UNIPHOS gas detection system. This is generally used in marine fumigation application for gas detection.

Ideally ASP-40, the standard air sampling pump, supplied by the manufacture is appropriate device to be used with detector tube, for which manufacturer stands guarantee.



Fig .- 1 :UNIPHOS Gas Detector

### OPERATION

The detector tube system is based on the following working principle. A precisely defined volume of sample air is drawn through the detector tube. The detector tube contains the sensing chemical, which reacts with the target gas in the sample air and produces a coloured stain in the sensing chemical. The length of the coloured stain measures the target gas concentration in ppm on the tube scale. The measurement involves the following steps.

1. Break both ends of the tube using tip cutter.



Fig .- 2 :Tip Cutting

2. Insert one end of the tube securely in the rubber tube connector ensuring that the arrow on the detector tube points towards the pump.



Fig .- 3:Tube Inserting

3. Align the metallic locking pin on the shaft with the slot of the stopper.

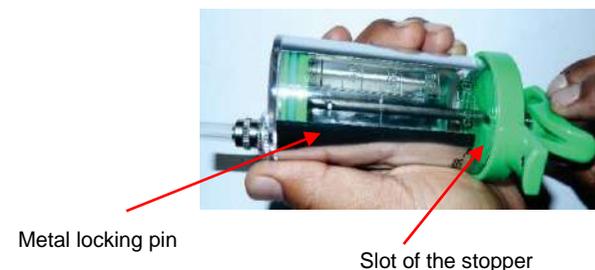


Fig .-4 : Aligning the metal locking pin with the slot of the stopper

4. Pull the pump handle for a full stroke (100 cc), and rotate the handle right or left 90 degree for locking the piston in the slot of the stopper.



Fig .- 5 :Sample Drawing

5. The target gas concentration is directly obtained on the detector tube scale.

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