

#2A

## AIRTEC CARBON DIOXIDE TUBE

### 1. General :

The AIRTEC Tube No. 2A provides the measurement of the concentration of Carbon Dioxide in compressed air utilizing the sampling device, pressure reducer and air flow meter.

### 2. Performance :

Measuring Range : 250 3,0000 ppm  
Calibration Marks : 250, 500, 750, 1000, 1500, 2000, 2500 & 3000 ppm  
Color Change : Yellowish Orange - Pale Orange  
Sampling Rate : 100 ml / min.  
Sampling Time : 5 minutes

### 3. Shelf Life :

Please refer to the term of validity on a Tube Box Label.

### 4. Measurement Procedure :

1. Connect the clean pressure reducer to the air compressor or compressed air cylinder.
2. Fill the pressure reducer with the air to be tested.
3. Break tips off the AIRTEC tube and connect the tube into rubber tube holder that the sample air to be flowed through the arrow of the tube.
4. Open the pressure reducer and introduce the sample air to AIRTEC tube. Check the flow rate through the tube at 100 ml / minute.
5. Wait 10 minutes.
6. After the sampling, read concentration at the interface of the highest stained reagent colored greenish purple although the tube produces separate stains.
7. If the stain length reaches the maximum calibration mark during sampling, stop pressure reducer operation and obtain the true value by the following :

$$\text{True Concentration (mg / m}^3\text{)} = \frac{\text{Tube Reading} \times 100}{\text{Sampled Volume (ml)}}$$

### NOTE :

For maintaining performance and reliability of the test result.

While Airtec Tube 2A is widely used, the test result is available only under 0% relative humidity condition.

### 5. Correction for Temperature :

No correction is required for tube temperature of 0 40°C.

### 6. Detecting Principle :

Carbon dioxide neutralizes potassium hydroxide to discolour pH indicator to pale yellow



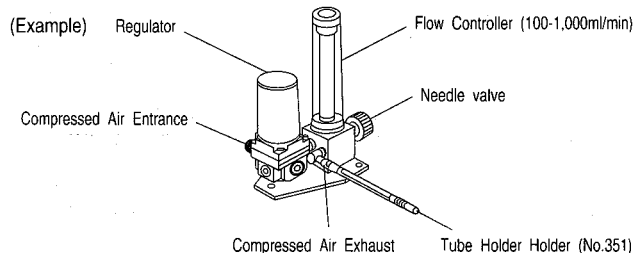
SEE OPERATING INSTRUCTIONS INCLUDED WITH THE AIRTEC KIT

## ■ Airtec Tube

Gastec Airtec Tube allows anyone to simply, quickly, and quantitatively measure the quality of their compressed breathing air. Easy to use, the Airtec Tube is an accurate and precise method for detecting CO, CO<sub>2</sub>, Water Vapor and Oil Mist. Gastec measures all four of the common contaminants in breathing air. Using Airtec Tube direct reading vapor tubes, simply connect the pressure reducer to your high pressure air source, compressor, cylinder, or air line and adjust the flowmeter to the required setting. Gastec takes care of your entire measurement problem with one common system reducing training and saving time and money.

Operators often produce or are performed in the presence of harmful airborne contaminants. When self contained breathing apparatus or other devices are used for respiratory protection, the quality of the breathing air requires special attention. Contaminants entering the compressor or contaminants generated by the compressor can be harmful to the worker and the respiratory equipment. Minimal safety requires that these potentially hazardous contaminants be monitored.

Airtec Tube is a convenient economical system for testing the quality of your compressed breathing air. you do not have to learn how to operate and calibrate sophisticated instrumentation. With Airtec Tube, the measurement is quick and simple and does not require user calibration. Just snap off both "break away" ends of the tube, insert the tube into the tube holder with the directional arrow pointing down, and adjust the flowmeter to the specified flow rate. A precisely-measured volume of air is injected into the tube where it contacts the reagent. The reagent immediately changes color and reacts quantitatively to provide a length of stain indication. The farther the color stain travels along the tube, the higher the concentration. After the required time, note where the color stain stops and take the measurement from the direct reading tube.



Please note that Airtec Tube is not included the above complete unit such as Regulator, Flow controller or \*Tube Holder. Only Tube Holder (No. 351) should be prepared as an accessory.

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Printed in Japan