

KITAGAWA

ETHYL ETHER LENGTH-OF-STAIN DETECTOR TUBES
(Type U)
(Direct Reading Type)

PERFORMANCE :

Measuring Range : 20 - 400 ppm
 Sampling Time : 1.5 minutes (1 pump stroke)
 Color Change : Pale Yellow - Pale Blue
 Sensing Limit* : 1 ppm

*The minimum detectable concentration although not precise.

**FLOW CONTROL ORIFICE IN THE PUMP SHOULD BE REMOVED BEFORE SAMPLING.

SAMPLING AND MEASUREMENT:

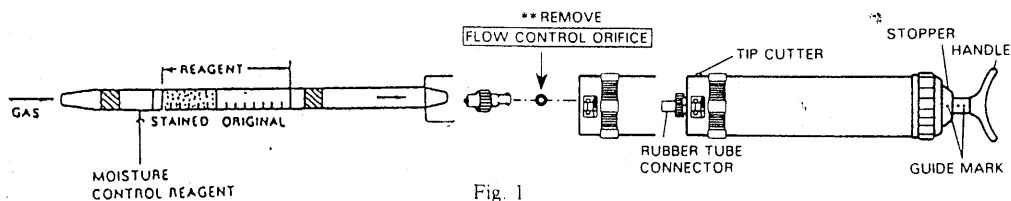


Fig. 1

1. Break tips of a fresh detector tube by bending each tube end in the tube tip cutter and then insert the tube end, of which direction is marked with broad arrow securely into pump inlet, as shown in Fig.1.
2. Use of Model 400 aspirating pump;
Align the guide marks (red points) on shaft and back plate of the pump. And pull the handle at a full stroke and lock it with 1/4 turn (90°). Wait 1.5 minutes as it is.
Use of Model 400A or APS aspirating pump;
Align the guide marks (red points) on shaft and stopper of the pump. And pull the handle at a full stroke. Wait 1.5 min. as it is.
3. Remove the detector tube from the pump inlet on the completion of the sampling. The reading can be obtained directly from the scale printed on the detector tube.

SPECIAL NOTE:

When the top of the discolored layer is colored obliquely, read the center between the longest and the shortest points of the discolored layer. The total stain should be read regardless of color variations.

The concentration scale is calibrated on the tube temperature of 20°C (68°F), therefore when testing at the other temperature, readings from the concentration scale should be corrected with the temperature correction table.

Temperature Correction Table				
Scale	Actual Concentration (ppm)			
	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
400	640	400	290	230
300	480	300	220	180
200	320	200	150	120
150	240	150	110	90
100	160	100	80	60
50	90	50	40	30
20	40	20	20	10

INTERFERENCES:

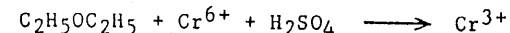
Alcohols, Esters, Ketones or Aromatic hydrocarbons produce similar stains and give higher readings. Aromatic hydrocarbons change the whole reagent to pale brown and coexistence of them with Methyl ether give higher readings.

HAZARDOUS AND DANGEROUS PROPERTIES OF ETHYL ETHER:

T.L.V.*** : 400 ppm
 Explosive range in air : 1.9 - 48.4 %

***Threshold Limit Value established by the American Conference Governmental Industrial Hygienists, 1984.

CHEMICAL REACTION IN THE DETECTOR TUBE:



BEFORE TESTING, THE PUMP SHOULD BE CHECKED FOR PROPER PERFORMANCE.
 LEAKAGE OF AIR WILL AFFECT ACCURATE READINGS.