



Detection Tubes and LP-1200 Pump Operation Instructions



Caution

- Wear safety glasses and gloves when opening tubes or handling open tubes with sharp edges.
- Always test the pump for leaks before use to ensure proper sample measurement.
- Dispose of spent tubes according to our disposal instructions or local regulations



Tube Measurements

Testing Hand Pump for leaks

Insert an unopened tube snugly into the inlet of the pump. Pull the plunger one full stroke and wait 2 minutes. Rotate the plunger dot away from the pump shaft alignment mark and allow the plunger to be drawn back into the pump shaft, keeping your hand on the plunger to stop it springing back too suddenly. There are no leaks if the plunger returns to within 3mm of its original position.

Measurement Procedure

1. Break both ends of a new detection tube using the tube tip breaker.
2. Insert the tube securely into the rubber pump inlet with the tube arrow pointing towards the pump.
3. Select the sample volume desired and align the red dot on the plunger with the red line on the pump shaft. Pull the plunger until it latches at ½ or 1 full stroke (50 or 100 ml) and await for the indicated sampling time to allow for the air to be drawn through the tube. Flow is complete when the end-of-flow indicator returns to full brightness.
4. For additional pump strokes, rotate the handle ¼ turn left or right and push it back fully without removing the tube from the pump, then repeat step 3.

Reading Tubes

1. Read the concentration directly from the scale printed on the tube. If a non-standard number of pump strokes was used for sampling, multiply the reading by the correction factor given on the tube data sheet.
2. Read the tube immediately after air sampling, as colours may change, fade or disperse with time
3. The reading is taken as the furthest distance along the tube that the colour change just becomes visible. If the leading edge is diagonal instead of perpendicular to the axis of the tube, use the average value.
4. Check the data sheet with each box of tubes and apply correction factors for temperature or humidity.