Check particle monitor for leaks

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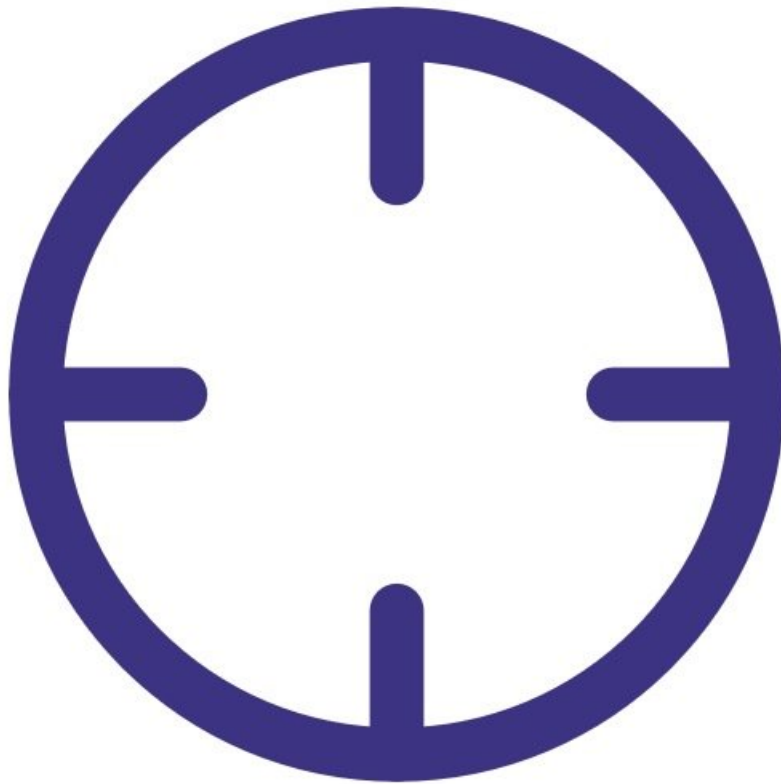
INTRODUCTION

A leak can be caused by loose connections, worn seals (o-rings) or split tubing.

If a leak occurs, this can affect the flow rate which will have a big impact on the accuracy of the measurement.

To understand how often you should perform this service activity, click here.

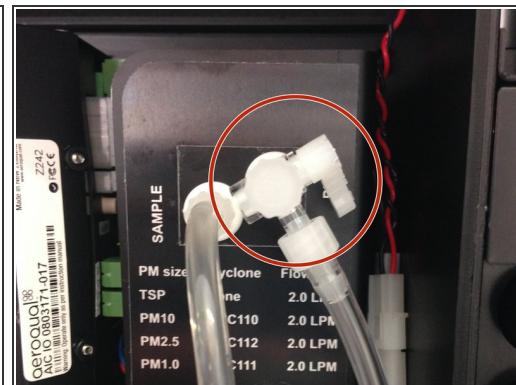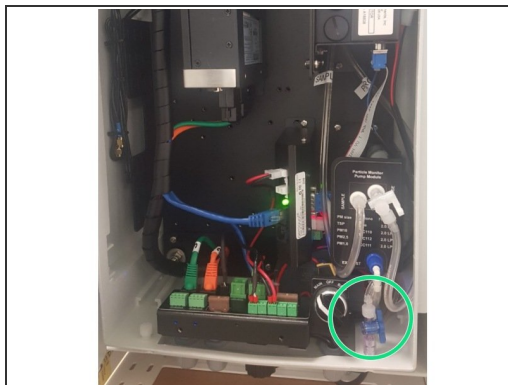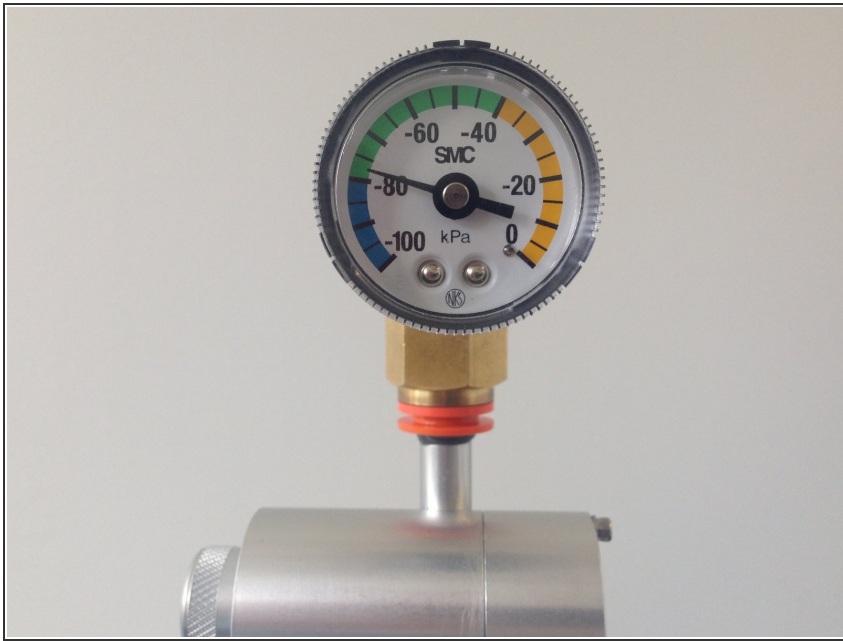## ⚙ PARTS:

- Leak gauge (1)

Step 1 — Enter service mode

- [Enter service mode](#) so any fluctuations in the data caused from this activity can be excluded from air quality reports.

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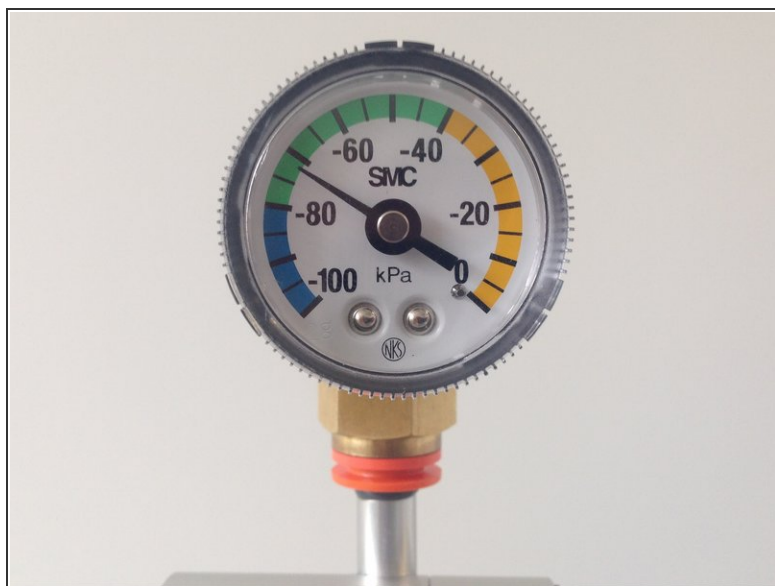
Step 2 — Open sample & block purge

⚠️ Adjust the sample flow by pulling the adjustment knob outwards, turning the knob to increase/decrease flow, and pushing the knob back in to lock when desired flow has been reached.

● Fully open the sample flow adjustment valve, which is located on the face plate of the pump module.

　ⓘ On older monitors, the sample flow adjustment valve is positioned at the bottom of the enclosure under the PDI cover.

● Block the purge flow by pinching the purge tube.

　ⓘ On older monitors, fully close the purge valve by pushing the valve handle towards the pump module.

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Step 3 — Attach gauge

- Remove the TSP head and install the vacuum gauge above the sharp cut cyclone.

- Wait for the gauge to stabilise.

- (i) The gauge should reach at least -60 kPa while power is connected.

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Step 4 — Observe pressure change

- Stop the the sample and purge pumps by pulling out the black and red power cables from the electronics module.

- Count how long it takes for the pressure to change by 10 kPa.

- (i) If the pressure change (leak rate) is greater than 10 kPa in 10 seconds, you'll need to check for loose connections, worn seals (o-rings) or split tubing.

- (i) For example, if the needle moves from -70 kPa to -60 kPa in 20 seconds, this is OK, but if if moves from -70 kPa to -60 Kpa in 8 seconds, this indicates a leak.

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Step 5 — Record in journal

- Record the results of this service activity in the monitor's journal.

- Exit service mode.

For further support, contact Technical Support.

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