

Gas measurement in **ASTEC incubators.**



Scope of the document:

Here, we suggest a method of using **LEO** to measure the gas composition in **ASTEC** incubators.



PRECAUTIONS:

- Please be cautious with your cultured embryos, considering that during the measurement procedure the composition of the gas in the chamber may be affected.
- Read the manuals for the incubator and LEO for usage and safety details.



GENERAL CONSIDERATIONS:



Evaluate the need for chamber cleaning and disinfection after working on the incubator.



As good practice, it is recommended to have LEO charged before use, and not to charge it during use.



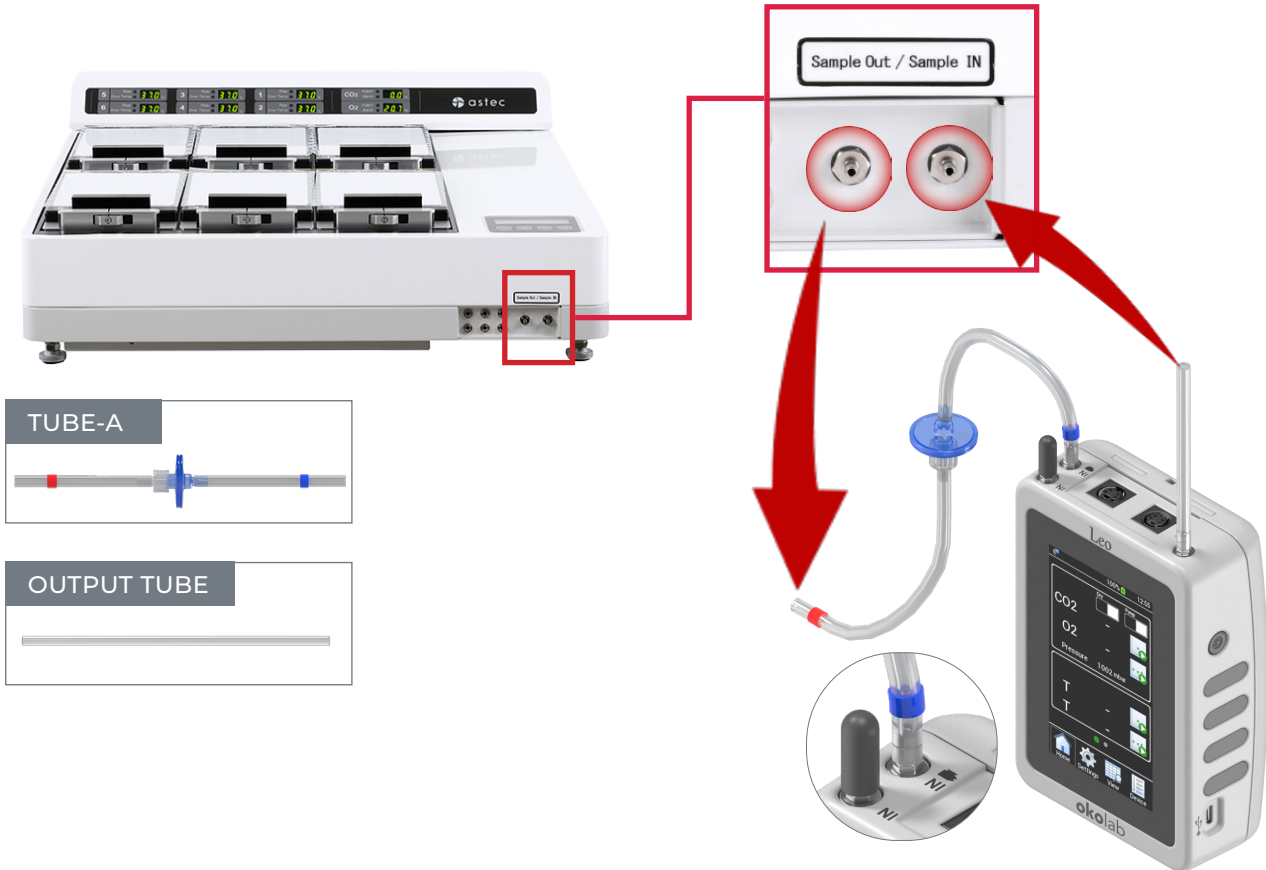
Always read the manual of the devices.



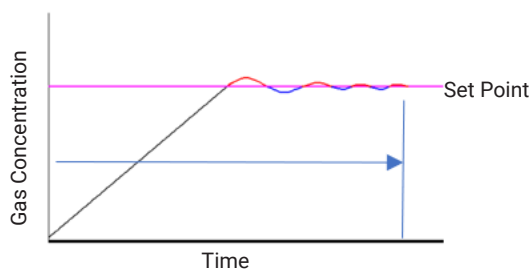
If LEO shows a message that it's warming up, it is advised to complete the warm up period before using.

MEASURING PROCEDURE:

STEP 1 Connect TUBE-A to LEO's **IN** port and to the **ASTEC** gas Sample Out port.
Connect the OUTPUT-TUBE to LEO's **OUT** port and to the gas Sample IN port of **ASTEC** to return the gas.

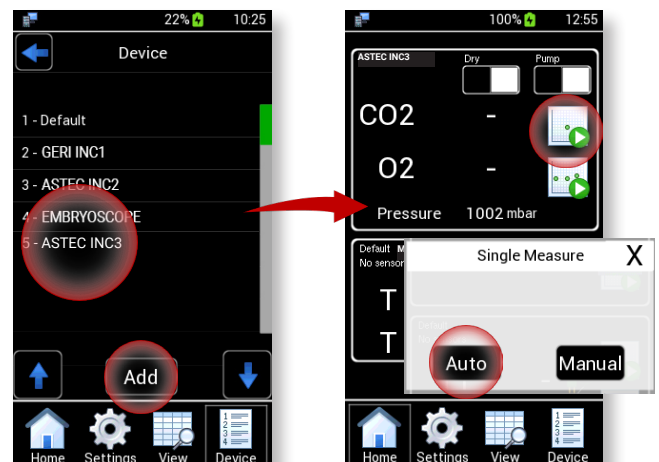


STEP 2 Give at least 10 minutes for **ASTEC** to stabilize the gas concentration in the chambers. Do not open the lids.

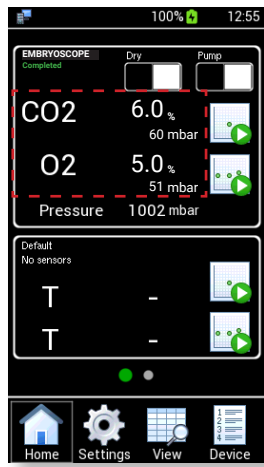


If the gas value on **ASTEC's** display is stable for a period of 10 minutes, proceed to the **Next** step.

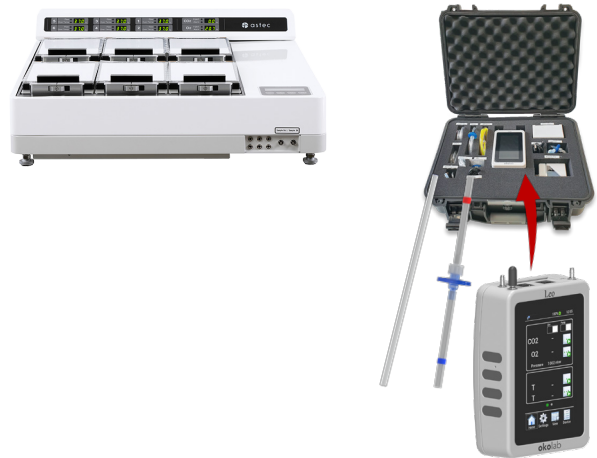
STEP 3 Start a **LEO** single measure in Auto mode.



STEP 4 LEO will show and store the measured values at the end of measurement.



STEP 5 Remove LEO and TUBES and store them.



DEVICE SETUP IN LEO'S DEVICE MENU

The following table shows the suggested measuring parameters for LEO.

Device Name	Pump/ Diffusion	Wet / Dry	Measure Duration	Gas Return
ASTEC	Pump	Dry ^{1,2}	Auto	YES

¹ Select Wet for humidified chambers.

² Use the moisture trap of Leo, if you do more than 3 sequential measurements on wet chambers.