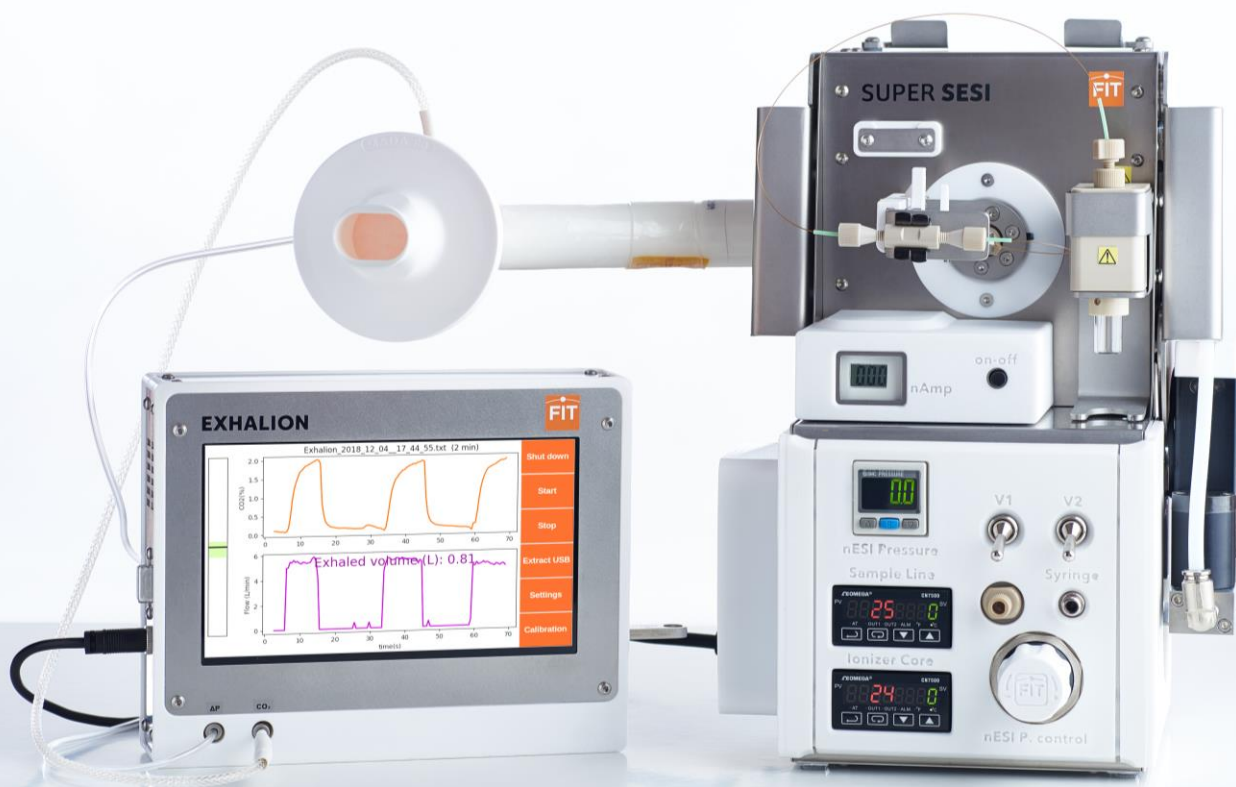


# EXHALION

**FIT** FOSSILIONTECH

## Standardized exhalation conditions

Standardizing the exhalation conditions is an essential step to eliminate a known source of potential confounding factors.



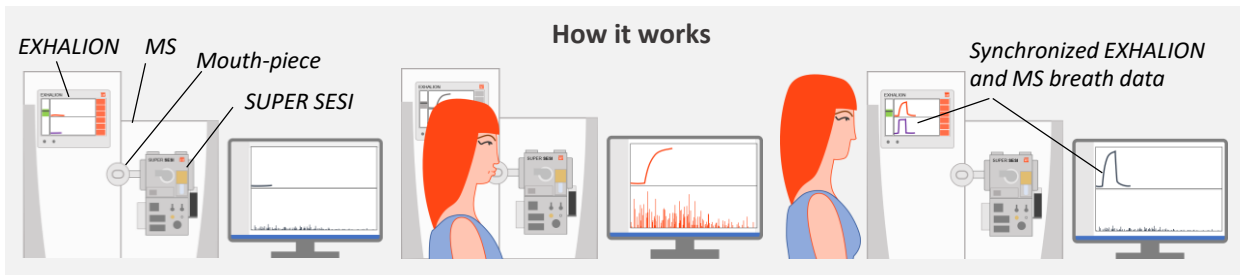
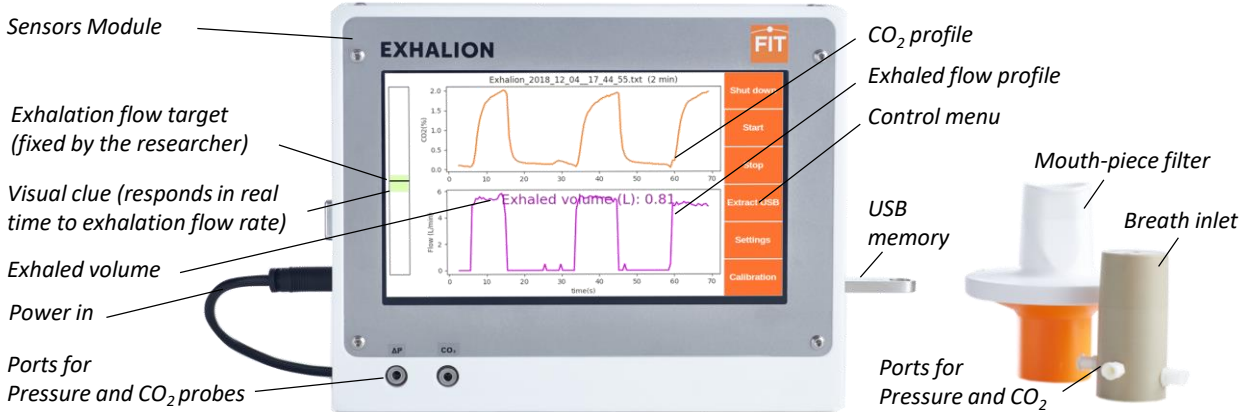
Contact us, we want to be your engineering partner!

We will study your analytical goals and develop customized solutions to enable new applications.

# Standardized exhalation conditions

## What is EXHALION?

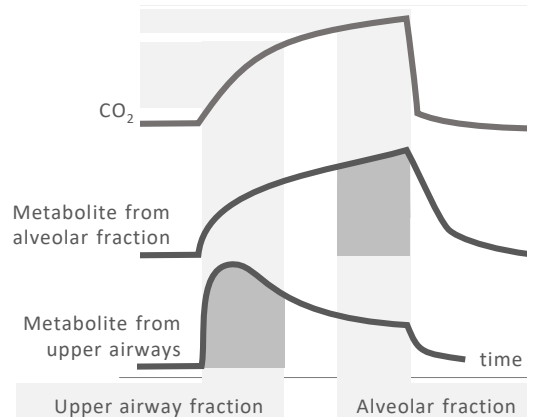
- EXHALION guides the exhalation maneuver for online breath analysis. It provides a visual clue that helps everyone exhale at a consistent volume and flow rate.
- EXHALION measures and logs exhaled CO<sub>2</sub>, pressure, flow rate, and volume. Data is automatically stored in an open format (\*.txt) file, so that it can be synchronized with MS data.
- EXHALION comprises an autoclavable Breath Inlet, and a Sensors Module that houses the touchscreen and all electronics. The Breath Inlet is compatible with medical grade disposable spirometry mouth-piece filters, and SUPER SESI. The Sensor Module can be seamlessly attached to the MS.
- EXHALION incorporates sensors and routines to facilitate calibration.



## Application

EXHALION is designed to facilitate Standard Operational Procedures for online breath analysis with SUPER SESI- HRMS. The dynamics of the lung, and its impact on the emission of different species, is extremely complex, and not known in detail. It is a consensus among the scientific breath research community, that standardizing the exhalation conditions is an essential step to eliminate sources of potential confounding factors.

EXHALION links the new MS data with the well-established capnography knowledge. For instance, the CO<sub>2</sub> profile allows distinguishing different lung fractions and their metabolites.



## Specifications

Dimensions: 20 x 16 x 4,5 cm	Weight: 1,5 Kg
Time resolution > 5 Hz	Compatible with standard spirometer antibacterial filters
Real-time flow and CO <sub>2</sub> measurement	Mouthpiece easily disassembled and autoclavable
Touchscreen control	Data storage in a .txt file