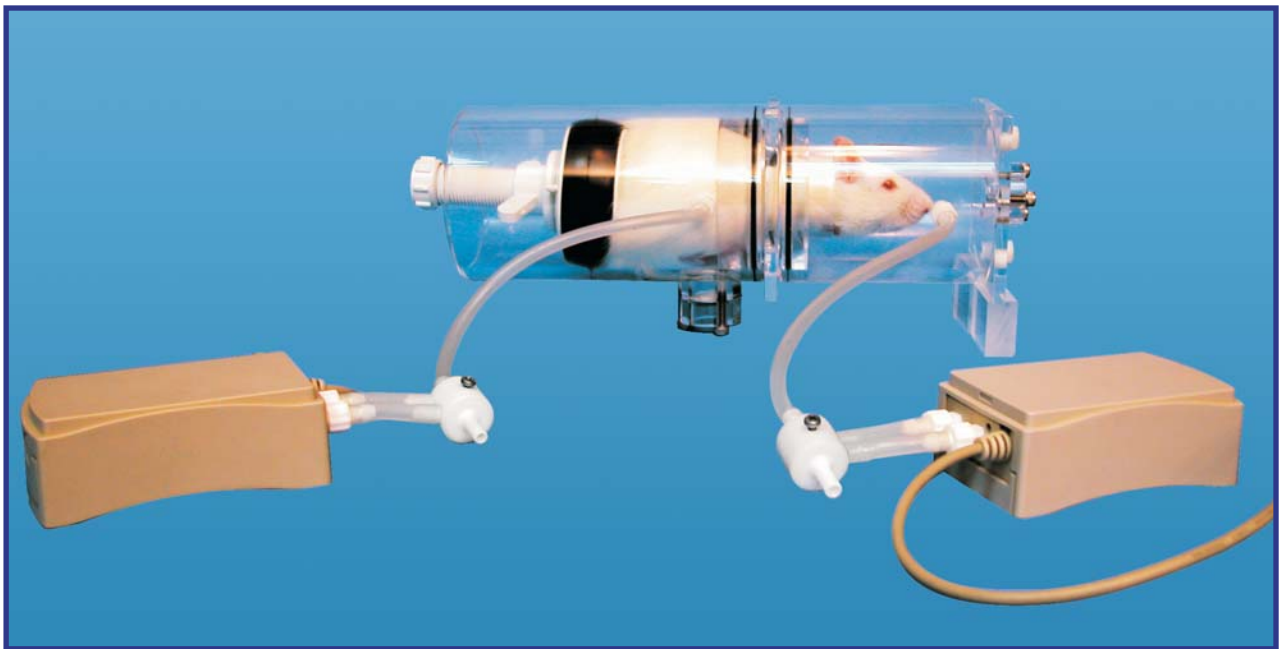


Plethysmography System

The Plethysmography System can generate a complete set of respiration data taken from conscious subjects.



In both single chamber and double chamber Plethysmograph a neck seal separates the nose respiratory flow from the thorax movement flow, allowing precise measurements of the two signals at the same time. With this we can accurately measure various respiration parameters:

*Respiratory flux
Tidal volume
Expired minute volume
Breathing frequency
Peak inspiratory flow
Peak expiratory flow
Forced vital capacity
PIF/PEF
Compliance respiration product*

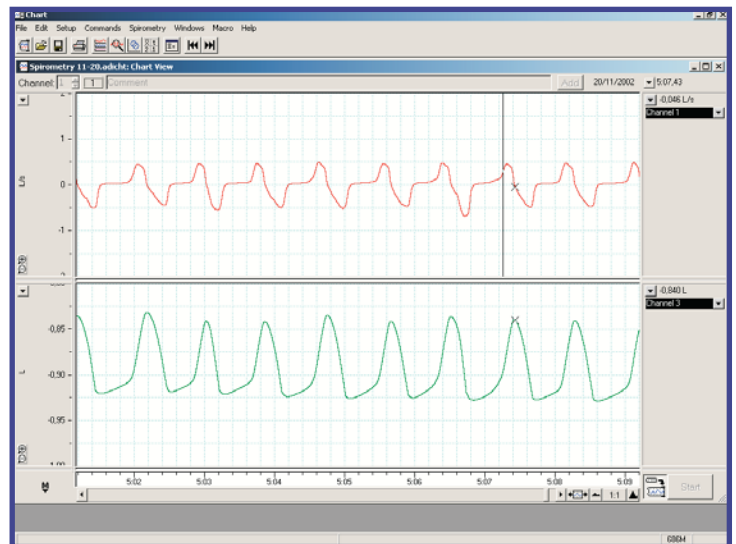
The comparing of the two signals shows a phase shift that can be used to calculate the CRP.



We offer the Single Chamber Plethysmograph with mask to separate the two signals or the Double Chamber Plethysmograph, with a second chamber for the head of the animal resulting in more comfort for the subject. We also have a new Double Chamber Plethysmograph with reduced head chamber in order to reduce rebreathing effect.

The head section of the chambers can also be used to make metabolic studies, monitoring carbon dioxide production and oxygen consumption.

Signals are recorded and viewed with an ADInstruments PowerLab recording unit and Chart software. This is a very powerful and flexible instrument, allowing a full customisation of the experiment, as the researcher can control almost every aspect of the experiment with the same recording unit.



References:

Flow Respiratory:

- MC-M Chamber for Mouse
- MC-R Chamber for Rat
- SR-1 Flow Sensor
- AS-0 Air Supply Unit up to 4 animals
- DA-2 Data Acquisition up to 2 animals
- DA-4 Data Acquisition up to 4 animals

Tidal Volume:

- RTP-1 Rat (200/400 gr.) restrainer with mask
 - MMP-1 Mouse restrainer, with mask
 - SR-1 Flow Sensor
- For data acquisition see Flow Respiratory

Tidal Volume and Plethysmography:

- RTP-1 Rat (200/400 gr.) restrainer with mask
- MMP-1 Mouse restrainer, with mask
- SR-2 Double Flow Sensor
- DA-2 Data Acquisition for 1 animal
- DA-4 Data Acquisition for 2 animals
- DA-8 Data Acquisition for 4 animals