Q-box³

Q-BOX is a climatic weighing chamber, employed for the determination of particle powder concentration in the air (PM2.5 and PM10).

Q-BOX can be used for environmental controls, to monitor the air quality in urban areas, but also for the industrial automotive field: according to the European Regulations all car and engine manufacturers need to check the pollutant emissions of the manufactured engines before these can be introduced on the market.

The mass concentration of suspended particle matter can be determined by performing high-precision weighing of dedicated filters, in controlled conditions of temperature and humidity, in full compliance to the EN 12341 Norm (or equivalents).

Thanks to the employment of feedback controllers, the climatic chamber of Q-BOX is able to ensure that temperature and humidity keep steady on the desired values, making use of a dedicated refrigeration system and of a humidifier.

The main structure of Q-BOX is entirely realized in composite material, to make it light and easy to install: the employment of fiberglass, with internal insulating core, also grants the optimal working conditions for the climatic chamber.

Weighing operations for filters are performed on a special anti-vibration bench, included in the supply, granting a perfect active/passive insulation against vibrations, so that very precise measurements (up to the sixth decimal point, 10-6 g) can be performed (the scale is not included in the supply).

Q-BOX can be either connected to the main water supply network of the laboratory, or can be used with tanks, should the connection to the network not be available. Anyway, a demineralizer with water softener is always included in the supply, to grant the perfect functioning of the machine.

- Climatic weighing station for particle powder determination (PM2.5 e PM10)
- Allows the determination of particle powder concentration according to EN 12341 (or equivalents)
- Fiberglass structure, with thermal insulating core
- Refrigeration system with condenser and humidifier
- Touch screen control panel
- Floor structure, with anti-vibration bench included in the supply
- Possibility of connection to water supply line or operation with tank
- Water softner and demineralizer included in the supply