

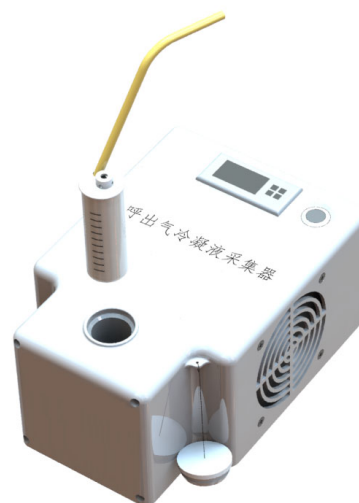
## Exhaled Air/Breath Condensate Collector (CAE/EBC)

### Model: BioscreenII

This is a convenient and rapid collector of Exhaled Breath Condensate (EBC), the principle is making the exhaled breath gas to meet the cryogenic inner wall of condenser tube, and then forming the liquid.

#### Feature

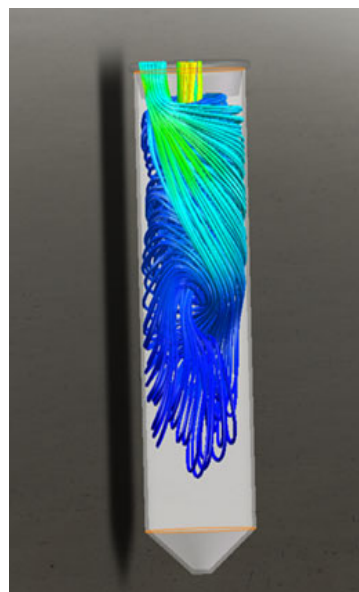
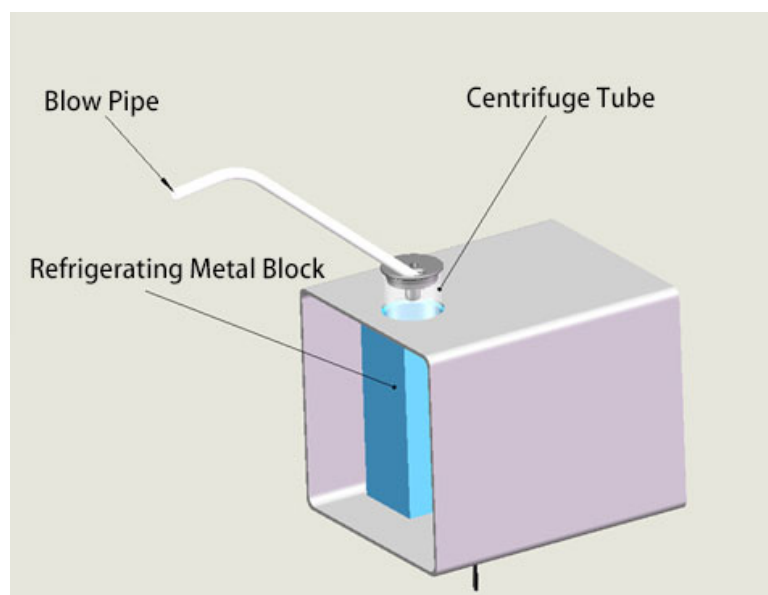
- Small size, light weight, portable
- Simple operation, continuous collection
- Normal breathing, comfortable collection experience
- High collection efficiency, high speed, 3-5 minutes can collect 500 $\mu$ l-1000 $\mu$ l
- The collection tube is consumables material, easy to use, avoid cross contamination
- Safe, non-invasive, painless, comfortable experience, the use of the instrument does not affect the normal breathing of subject



#### Principle

The design is special separate cover, which enable the exhaled breath gas of subjects to form a vortex flow in the centrifuge tube, promote the water mist to form liquid drop, and reduce the formation of liquid film.

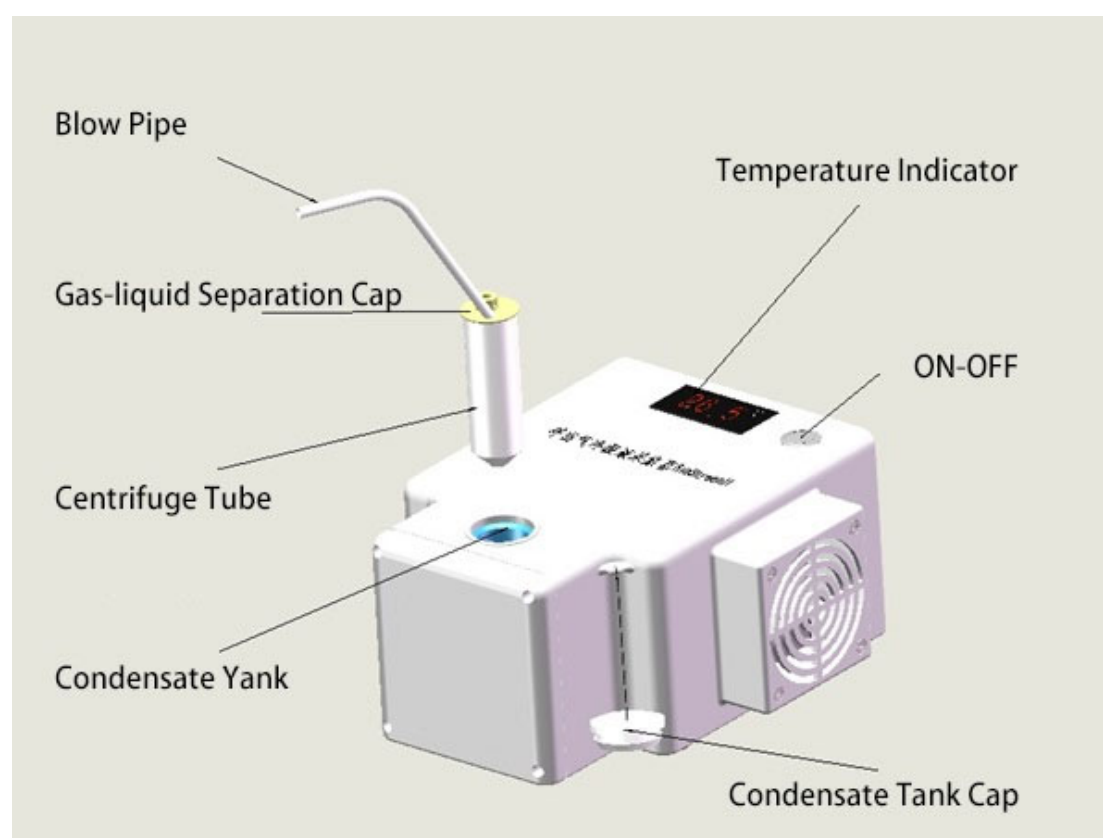
At the same time, the condensate droplets on the side wall can be blown down continuously and collected at the bottom of the condenser pipe, finally to improve the sample concentration and collection rate. We choose 50ml centrifugal tube to increase the condensation contact area, and the collected condensate liquid can be directly used for inspection or refrigerated preparation.



## Specification

Collection Efficiency	200µl/min
Collection Temperature	0~4°C
Average Temperature Descending Speed	5°C/min
Adapter	12V/10A
Power	96W
Centrifuge Tube	Φ 29.1*114.4mm
Breath Blow Pipe	Φ6mm
Dimension	250*220*120mm
Weight	2kg

## Structure



## Application & Actual Case

Air pollution, respiratory infection, smoking, dust and chemical inhalation, and genetic factors will lead to different diseases of the lung and respiratory system, which seriously threaten human life and health.

Exhaled Breath Condensate, same as saliva, sputum, blood, sweat and urine, which is an important specimen source of testing the physiological and biochemical indexes of human body. Exhaled Breath Condensate contains a large number of volatile and non-volatile substances, the change of these substances can reflect the oxidative damage and inflammation in the respiratory tract, which used to detect the change of the disease.

**[Our sampler is especially suitable for the Covid-19 Personnel detection.](#)**

1. Exhaled Breath Condensate (EBC) Collector, is applied in **Wuhan** during COVID-19 epidemic prevention and control in 2020, using for the collection and detection of patients' exhaled gas. BioscreenII provides a powerful technical support for the assessment of the risk of Novel Coronavirus aerosol transmission and the improvement of biological safety protection measures.



2. **The Military Medical Research Institute is used in Huoshenshan Hospital**, and the Jiangsu Provincial Center for Disease Control and Prevention is used in Wuhan

### 中国人民解放军军事医学研究院生物工程研究所

#### 生物气溶胶采样器与呼出气冷凝液采集器

##### 使用证明

北京鼎蓝科技有限公司新研制的生物气溶胶采样器、呼出气冷凝液采集器，被用于 2020 年新型冠状病毒肺炎疫情防控期间武汉火神山医院环境空气中病毒气溶胶与患者呼出气冷凝液的采集检测。相关结果为评估新冠病毒气溶胶传播风险、健全生物安全防护措施提供了依据。

特此证明！



#### 生物气溶胶采样器与呼出气冷凝液采集器

##### 使用证明

北京鼎蓝科技有限公司研制的生物气溶胶采样器 WA-15，生物气溶胶采样器 WA-400，呼出气冷凝液采集器 AT-150，于 2020 年新型冠状病毒肺炎疫情防控期间，在武汉地区使用，用于环境空气中病毒气溶胶和患者呼出气的采集与检测。该设备对于评估新冠病毒气溶胶传播风险、健全生物安全防护措施提供了有力的技术支撑，使用情况良好。

特此证明！

