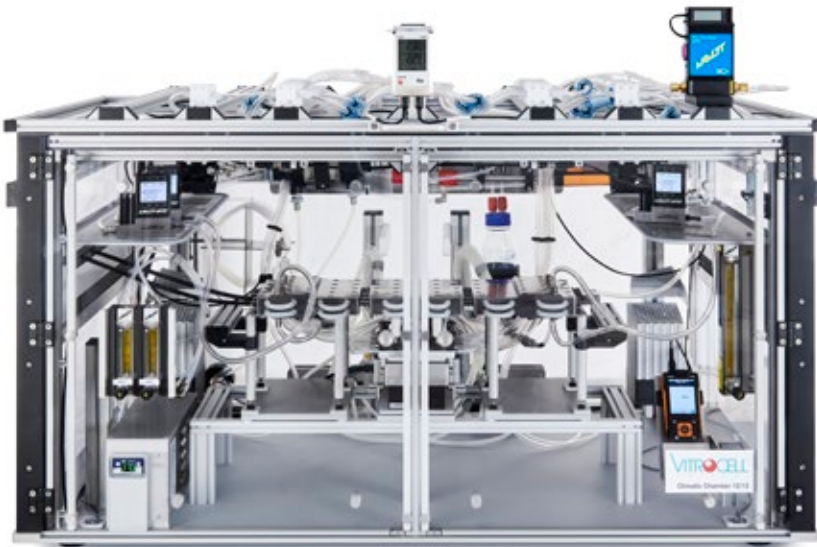


## VITROCELL® 12/12 now available with Climatic Chamber

For reliable aerosol exposure of cell cultures using 12- or 24-well sized inserts



The VITROCELL® 12/12 with Climatic Chamber

The VITROCELL® 12/12 module system has been designed to facilitate the exposure of mammalian cell cultures to airborne substances such as gases, complex mixtures, nanoparticles and fibers.

It features a throughput of 3 dilution steps @ 3 replicates and 1 clean air control at 3 replicates. In order to optimize the exposure for liquid aerosols and to maximize the performance of humidified air supply it is now also available in a user-friendly climatic chamber.

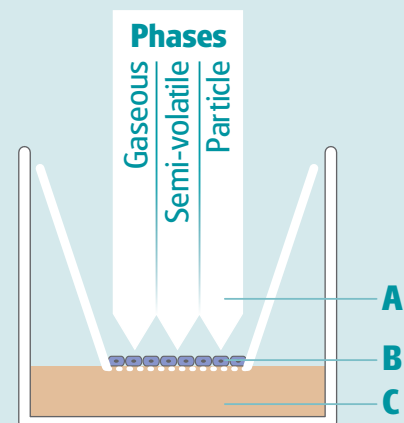
### Exposure at the Air/Liquid Interface

In response to the scientific need to expose in physiologically relevant conditions, the VITROCELL® exposure devices have been specifically designed to enable direct exposure of mammalian cells or tissue at the Air/Liquid Interface. Here the cell cultures are not covered with media as opposed to submerged conditions which cause an undesired interaction of the formerly airborne substances with the culture media.

Cell systems cultivated on membrane inserts are exposed at the Air/Liquid Interface (ALI) so that the test substances are received directly. This approach allows for more credible and authentic results than by submerged exposure due to a closer replication of the human physiology.

#### Air / Liquid Cultivation and Exposure in Exposure Module

- A** Direct and controlled exposure of test atmosphere to cells
- B** Cells on membrane
- C** Media below cells

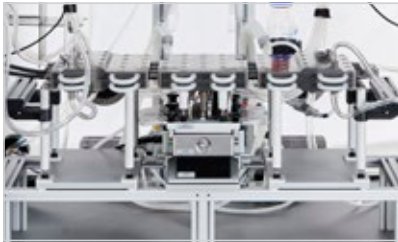


### VITROCELL® 12/12 Climatic Chamber with Docking Station

The VITROCELL 12/12 System and its docking station are integrated in a Climatic Chamber which is heated at 37° C. The heating of the entire

system avoids condensation of aerosols provided by a liquid aerosol generator or by e-cigarettes/electronic nicotine delivery systems (ENDS).

Furthermore, the constant temperature enables a perfect supply of humidified air (normally 85 % R.H.)



VITROCELL® 12/12 Docking Station



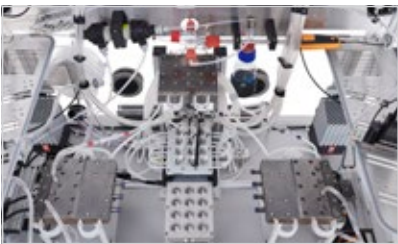
VITROCELL® 12/12 Quick Connect System replaces the mounting of tubing material.



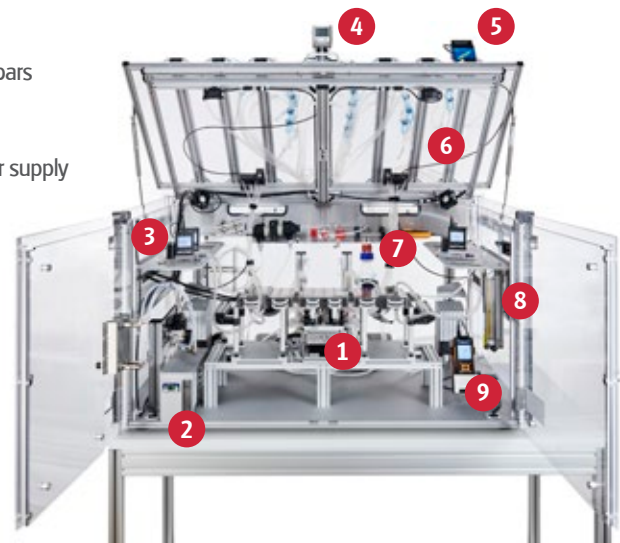
VITROCELL® 12/12 Base Module

### The unique lifting cover enables easy access to all components:

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1 Docking Station with Exposure Module</li> <li>2 Temperature Controller</li> <li>3 Dilution Flow Controllers</li> <li>4 Meter for chamber temperature</li> <li>5 Flow Meter for vacuum adjustment</li> </ol> | <ol style="list-style-type: none"> <li>6 Vacuum Valve holder bars (access from outside)</li> <li>7 Humidification Station</li> <li>8 Rotameter für clean air supply</li> <li>9 Meter for relative humidity</li> </ol> |
|--|---|



Top view of all components



### Key Features:

- Dimensions (L x W x H): 1 280 x 900 x 870 (open 1 350) mm
- Supplied with dynamic double-jet dilution system for 3 dilutions @ 3 replicates and 1 clean air control @ 3 replicates
- Integrated Humidification Station
- Integrated aerosol distribution system made of stainless steel/VITROGLIDE surface
- Climatic Chamber with temperature monitoring
- Unique quick-connect system for easier handling