

Advanced in vitro exposure systems

VITROCELL® Humidification Systems



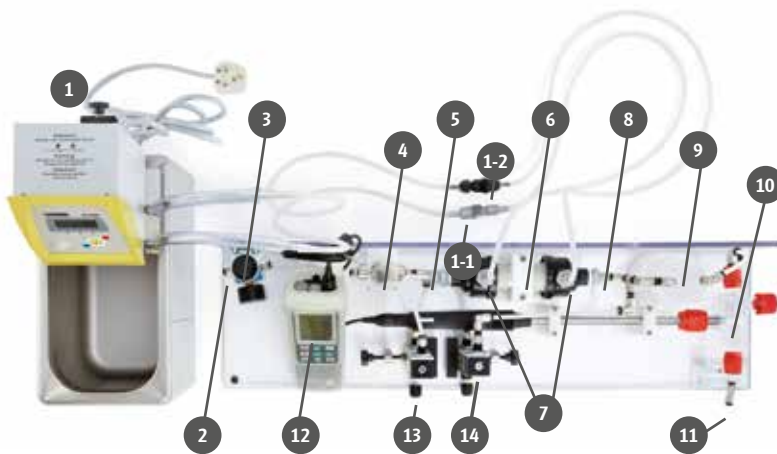
VITROCELL® Humidification Station

For humidification of clean/dilution air

High-end solution ensures a constant and stable supply of humidified air.

For sensitive cell systems and longer exposure times, humidification of the dilution and control air may be required – depending also on the air quality in the lab system.

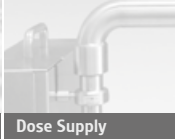
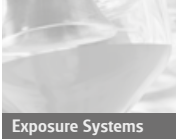
This high-end solution offers the supply of humidified air at a constant level of humidity. With the genuine bypass system, the humidified air can be adjusted to the desired humidity level. The reliable operation using a permeation unit ensures a condensation-free operation.



- 1 Water Bath with pump
- 1-1 Quick connector for water in flow
- 1-2 Quick connector for water out flow
- 2 Connection to Air Supply
- 3 Pressure Regulator
- 4 Security Valve
- 5 Air Inlet Permeation Unit
- 6 Permeation Unit
- 7 Water In-/Outlets Permeation Unit
- 8 Air Outlet Permeation Unit
- 9 Liquid Separator
- 10 Heated Probe for Humidity / Temperature
- 11 Humidified Air Outlet
- 12 Moisture / Temperature Meter
- 13 Air Flow Regulator to Permeation Unit
- 14 Air Flow Regulator to Bypass

Features

- Humidification of clean air up to 99.5 % RH
- Degree of humidification adjustable from base humidity to 99.5
- Max. air flow 40 l/min.
- Max. pressure 1.1 bar controlled by security valve
- Reliable humidification
- Online display of humidity and temperature
- Water bath with pumping function assures moisture delivery at constant conditions
- Dimensions humidification platform: 800 x 230 x 20 (W x D x H) mm
- Dimensions water bath: 181 x 332 x 370 (W x D x H) mm



VITROCELL® Washing Bottle

For humidification of clean/dilution air

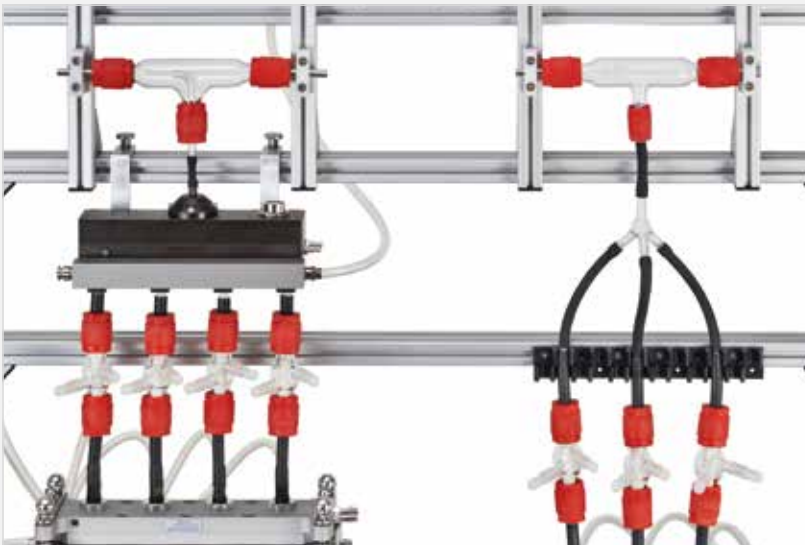
VITROCELL® recommends using a set of 2 washing bottles.

The set is connected between the pressure regulator and exposure module. Just as the water temperature drops over time, humidity level change too. Therefore, this solution can only be recommended for short-term exposures.



VITROCELL® Inline Humidifiers

For humidification of the aerosol/test atmosphere before module inlet



The VITROCELL® Inline Humidifiers add moisture to the exposure modules immediately prior the inlets.

In using an inert permeation material, they are a viable solution whenever humidity cannot be added directly to the operating air of the aerosol generator, for example when dry powders must be aerosolized.

About VITROCELL®

VITROCELL® exclusively concentrates on the developing, producing, installing, training and servicing of advanced *in vitro* exposure systems.

The VITROCELL® Systems' team is driven by their vision for new in-vitro standards through state-of-the-art technology, highly qualified workmanship and absolute client dedication. VITROCELL® has successfully collaborated with clients from leading research institutes, contract research organizations, regulatory authorities or industrial laboratories across the world. Working with our team experts, all modules have been tailored to create durable and complete turnkey-systems for *in vitro* inhalation toxicology. Gases, environmental atmospheres, nano particles and complex mixtures are analyzed on lung cells at the air/liquid interface using these systems. VITROCELL® technologies are also applicable to solutions for skin research.

Over a decade of devotion to research in this specific field has given our team of design & precision manufacturing specialists the opportunity to mentor highly diversified and complex projects **from conception to completion**. We strive to become a constructive member of each research team, providing support when it is needed, advice when it is required and modules of the highest quality, which are even polished by hand before leaving here to be integrated into your workspace. Every piece of our German engineered equipment is manufactured to the highest of standards – yours.

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