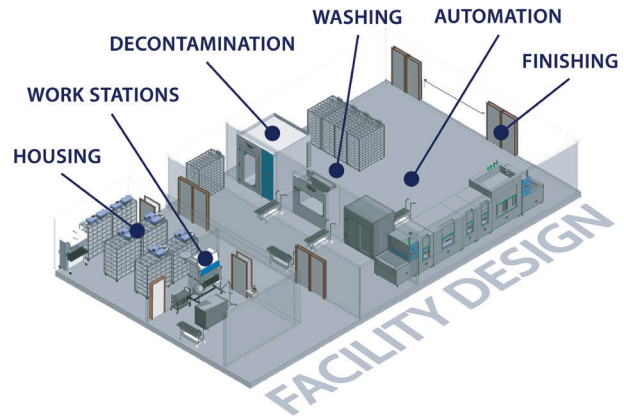


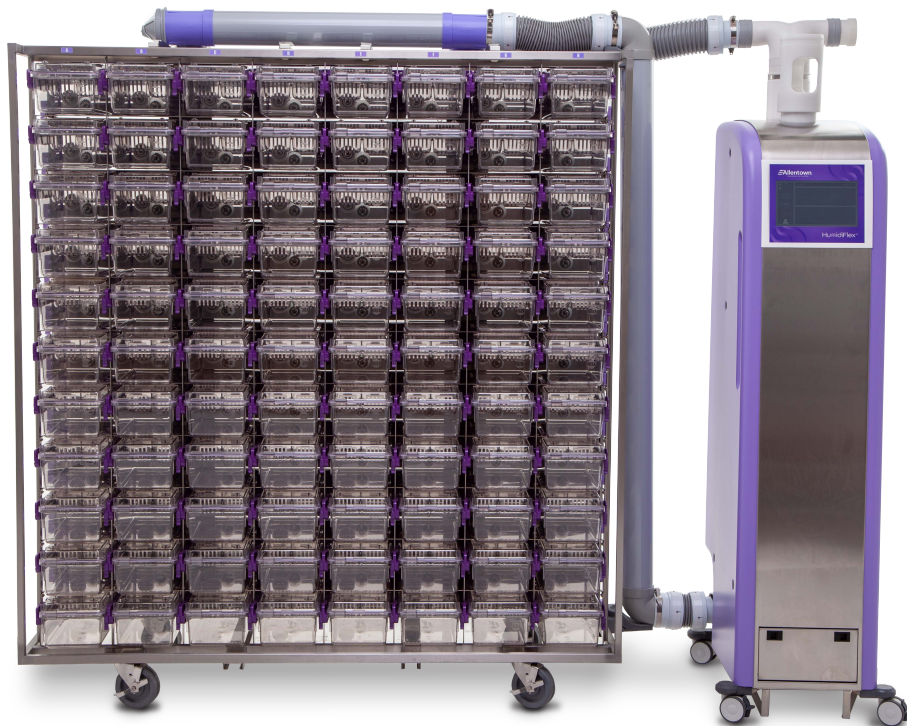
## Your trusted global partner providing critical solutions

For over 50 years, Allentown has provided key solutions to the biomedical research community. Our high-quality equipment and advanced vivarium systems continue to define and exceed industry standards. Innovation, quality and service are at the heart of the customer experience.



# IVC Humidity Control

## AIR HANDLING UNIT





## Accurate Relative Humidity for your Rodents

Unrivaled accuracy of relative humidity varying less than  $\pm 3\%$  from set point all year round allows ensuring reproductibility of research, improved bedding condition, optimum animal welfare and energy efficient humidification. The unit is available with Humidification and/or DeHumidification function and can operate with different types of water available at the facility; tap water at any hardness or RO-water/mineral free water.



### Accuracy and Reproducibility

Unrivaled accuracy of relative humidity within  $\pm 3\%$  of setpoint, ensuring that study results are independent of season and location.

### Monitoring

Temperature and relative humidity simply need to be under control, accurate and recorded. 24/7 performance monitoring without even entering the animal room.

### Animal welfare

Water content in the air as well as the temperature surely affects the thermoregulation of the rodents. Mice without fur or pups in particular are vulnerable to unwanted fluctuations in their micro climate.

### Optimized control over intra-cage conditions

Survival of bacteria, growth of fungus and transfer of viruses is affected by relative humidity and for immunodeficient rodents, it could be an area of concern.

### Proven and Patented system

Patented\* with a proven and unrivaled technology, HumidiFlex guarantees a stable relative humidity varying less than  $\pm 3\%$  from set point.

Humidifying air at rack level rather than at room level offers huge savings.

## Performance and Reliability

Temperature and humidity monitoring of supply and exhaust:

Relative humidity control: *Humidification of air*

- to 45-65% RH±3

*De-humidification at various temperatures of air in the holding room:*

- ≥ 65% ±3% at 19°C
- ≥ 60% ±3% at 20°C
- ≥ 55% ±3% at 22°C
- ≥ 50% ±3% at 23°C
- ≥ 47% ±3% at 24°C

Optional configurations

- Tap water supply
- RO water supply
- Drain water supply
- Cooling water supply
- Cooling water return

Pressure polarity control / monitoring

Flow rate up to 200m<sup>3</sup>/h for support of 1-4 IVC racks or 1-2 double-side IVC

Noise and vibration reduction

Supply and Exhaust HEPA H14 filtration

G3 grade pre-filters

Air quality: Class 5 (ISO 146441)

Thimble for HVAC connection

10" colour touch screen

Materials: AISI 304 stainless steel and ABS plastic

Four Ø75 castors, 2 with brake

CE and C-tick certified

UL / CUL listed

## Connectivity and Remote monitoring

LAN RJ45 for optional real-time external monitoring of settings, alarms and measurements of room temperature as well as relative humidity

BMS connection for analog alarm signal XLR (4-pin male)

USB 2.0 for export of data

Optional real-time logging, Features automatic alarm notification via SMS or e-mail, plus data backup on the unit and in the Cloud.

Optional USB-Anchor, which enables blower settings and data stored in the cloud to always be applied to a specific position, even in the event of blowers being swapped.



## Power

Mains: AC 230 V, 50/60 HZ, 12 A. L+N+PE or AC 120 V, 50/60Hz, 20 A. L+N+PE

Power consumption:

- Max. consumption when steam is being generated is <2500W
- Average consumption is approx. 300W depending on temperature and relative humidity
- Approx. 100W when humidification is inactivated

## Humidification

### Using tap water

- Consumption: 0-10 litres/hour. When using tap water approx. 5 litres are required to generate 1 liter of RO water.
- Supply connection: 2 metres hose with ½" internal screw thread at both ends according to ISO 228/1
- Drain connection: 3 metres ½" hose with a valved quick release coupling to be attached to the HumidiFlex Max. lifting height of integrated pump for waste water: 4 metres  
Max. 9 litres when humidifying with tap water  
Max. 2 litres when dehumidifying
- Pressure: 1-8 Bar
- Hardness: <10dH is recommended. Tap water supply with hardness above 10 dH reduces life of RO-filter and mixed-bed filter

### Using RO water

- Consumption: 0-1.8 litres/hour
- Supply connection: 2 metres hose with ½" internal screw thread at both ends according to ISO 228/1
- Conductivity of water: <20µS/cm is recommended. A higher conductivity will imply that an increased amount of minerals is in the water and the life of mixed-bed filter will be reduced

## De-Humidification

### Cooling water

- Connections:  
Supply hose: 2 metres insulated hose with ½" internal screw thread at one end according to ISO 228/1; Other end to be attached to the blower contains a valved quick release coupling  
Return hose: 2 metres insulated hose with ½" internal screw thread at one end according to ISO 228/1; Other end to be attached to the blower contains a valved quick release coupling
- Temperature range: Supply max. 7°C. Return 12-15°C
- Pressure: 0.7-6 Bar at 350 L/h
- Drain connection: 3 metres ½" hose with a valved quick release coupling to be attached to the blower. Dehumidification of air generates condensed water.



Depth	Width	Height	Weight <sup>1</sup>	Power Cable	Exhaust Connection	Acoustical Noise (1 m) <sup>2</sup>	Energy Use <sup>2</sup>	Heat Load <sup>2</sup>
mm	mm	mm	kg	mm	mm	dB	Watts	Watts
<b>Humidification / Dehumidification blower</b>								
666	503	1704	110	2500	-	34-49	7 – 23	<80

<sup>1</sup> All weights are approximations. <sup>2</sup> Subject to number and type of connected racks, number of air changes per hour and room layout. A noise reducing plate at the air intake is recommended for ScanClimes being connected to more than 2 IVC racks.

