

# GEN1000 REACH-IN

**MULTI-APPLICATION CHAMBER** 





## **GEN1000 REACH-IN CHAMBER**

#### **PRODUCT OVERVIEW**

With its unique ability to adapt to different research applications, the GEN1000 offers an economical and flexible solution for plant science. The base chamber can be fitted with one of four specially configured kits each with airflow, lighting and shelving designed to suit specific plants and applications.

### TALL PLANT (TA) KIT:

Upward airflow, maximum growth height and light intensity for taller plants such as cereal crops, horticultural plants and silviculture.

## **SHORT PLANT (SH) KIT:**

Horizontal airflow over multiple shelves optimizes growth area for shorter plants, like *Arabidopsis*. Ideal for research in propagation, genetics, physiology and other moderate light experiments.

## **TISSUE CULTURE (TC) KIT:**

Low light and multiple tiers to maximize space and provide upward airflow that minimizes condensation in petri dishes and jars used in propagation and genetics experiments.

#### **INCUBATION (IN) KIT:**

Low light and multiple tiers for nurturing young seedlings into shorter plants.

#### **ENTOMOLOGY:**

The GEN1000 can be easily adapted for entomology research by selecting the optional phenolic coated refrigeration coil, which protects it from insect damage.

#### **AIRFLOW**

Precisely designed and manufactured air plenums are used for each of the four application kits. The TA kit utilizes a solid rear plenum and distributes air from the chamber floor for a uniform upward airflow. The SH and IN kits both use a perforated rear plenum that distributes the air horizontally across multiple shelves. The TC kit incorporates individual air-shelves that distribute air vertically to minimize condensation within petri dishes and containers.

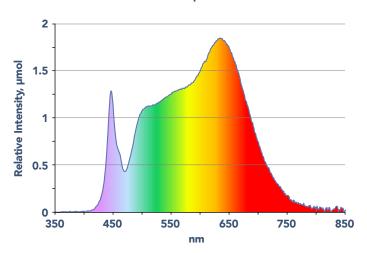
## **REFRIGERATION**

The air-cooled refrigeration system is optimized to ensure uniform conditions regardless of the particular kit installed. Kits do not alter the configuration of the refrigeration system and as such, kits can be interchanged by the user if additional kits are selected.

#### LIGHTING

The standard lighting systems for the GEN1000 incorporate high efficiency T5 fluorescent lamps configured to suit the intensity required for each application and kit. Lamp and ballast combinations have been designed to ensure uniform light distribution. Standard lighting in the TA and SH kits can be adjusted in levels; for all kits, options for dimming through the controller are available.

#### **LED Spectrum**



For research requiring an all-purpose broad white spectrum, energy-saving LEDs are available.

## **CONTROL AND MONITORING**

The GEN1000 comes equipped with Conviron's most advanced controller – the CMP6060. In addition to powerful programming and reporting capabilities, the CMP6060 includes a full-color, high resolution touchscreen with an intuitive graphic interface. Users can create custom programs for key parameters such as temperature, lighting and humidity and receive audible, visual and email notifications of alarms. Options include connection to your local area network (LAN) and connectivity to a central PC or mobile device with Conviron Central Management™. CMPLink allows seamless integration with an Argus Control system.



The CMP6060 home screen provides an easy-viewing dashboard for set points and actual conditions and quick access to other control features.

#### **BASE CHAMBER DATA**

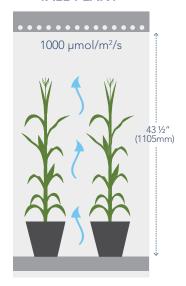
The GEN1000 chamber is designed to fit through a standard commercial doorway and ship in one piece requiring minimal assembly and easy installation in any research lab. With foamed-in-place CFC-free insulation, painted galvanized steel exterior and galvannealed interior, the GEN1000 is highly durable, resistant to corrosion, and easy to clean, operate and maintain.

TEMPERATURE °C	INTERIOR VOLUME	EXT DIMENSIONS W x D x H	WEIGHT	ELECTRICAL SERVICE	SAFETY CERTIFICATIONS
4-40 Lights Off	27.6ft <sup>3</sup>	41 x 32 ½ x 77 (in)	700 Lbs	120-1Ø-60Hz-2 wire	cTUVus (NRTL)
10-45 Lights On	781L	1040 x 825 x 1960 (mm)	320 Kg	230-1Ø-50Hz-2 wire	CE-mark
Control: ±0.5					

## **ONE CHAMBER. FOUR APPLICATIONS.**

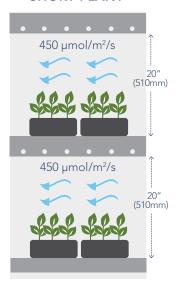
The GEN1000 can be fitted with one of four kits. Additional kits are available allowing researchers to convert the chamber to adapt to a variety of research programs that require different light intensity, airflow direction, growth height and growth space.

#### **TALL PLANT**



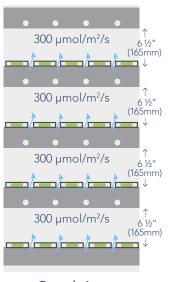
Growth Area 6.31ft<sup>2</sup> (0.58m<sup>2</sup>)

#### SHORT PLANT



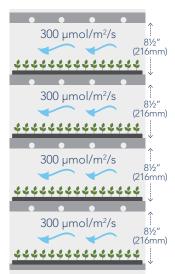
Growth Area 11.3 ft<sup>2</sup> (1.05m<sup>2</sup>)

#### **TISSUE CULTURE**



Growth Area 22.6 ft<sup>2</sup> (2.1m<sup>2</sup>)

#### **INCUBATION**



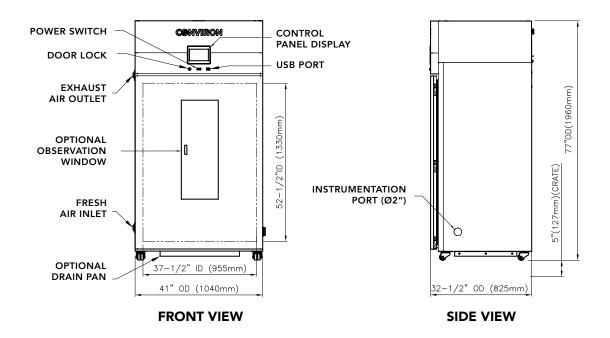
Growth Area 22.6 ft<sup>2</sup> (2.1m<sup>2</sup>)

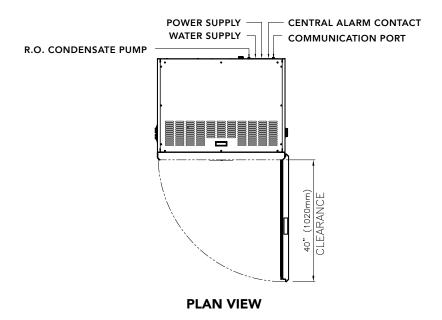
### **EXTEND YOUR CAPABILITIES WITH THESE OPTIONS**

- Connect seamlessly to an Argus controls system with CMPLink
- UPS surge protection on power supply
- Observation window to ease viewing
- Phenolic-coated refrigeration coil for entomology applications
- Closed-loop dimming with light meter
- Broad spectrum LED lighting

- Additional shelf and lighting for the SH kit
- Condensate pump and drain pan
- Low temperature (2°C) operation
- Water-cooled condensing unit
- Ultrasonic humidification to 90%RH lights off
- Dehumidification
- Additive CO<sub>2</sub> and control

## **GEN1000 REACH-IN CHAMBER**

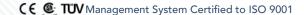




## **NOTES**

- 1. REQUIRES A MINIMUM OF 4" (102 mm) FROM REAR OF THE CHAMBER TO BACK WALL.
- 2. LENGTH AND WIDTH DIMENSIONS  $\pm 1/4$  (6mm). HEIGHT DIMENSIONS  $\pm 1''$  (25mm) DUE TO POTENTIAL ADJUSTMENT OF LEVELING FEET.
- 3. STANDARD REFRIGERATION SYSTEM IS SELF-CONTAINED, AIR-COOLED. WATER COOLED REFRIGERATION IS OPTIONAL.

GEN1000 CHAMBER DRAWING NO. 288765 DATE ISSUED: FEB 2019



www.conviron.com

