



MTPS Series

with Flex Option

MULTI-TIER WALK-IN

PLANT GROWTH

CONVIRON®

MTPS Series with Flex Option

PLANT GROWTH ROOM

Configured with the Flex option, an MTPS plant growth room becomes a highly adaptable environment for research programs requiring a range of plant heights and lighting intensities. The Flex option allows the MTPS to be converted from a tall plant/high light/single tier configuration to a short plant/low light/two or three-tier configuration. The flexible design means there is no need for special trades or services to adjust shelf height and airflow as research needs change. Simple plug-and-play design provides researchers with easily adjustable and removable cantilevered canopies.

Lighting

With the Flex option, lighting canopies feature T5 fluorescent and halogen incandescent lamps to provide a broad based light spectrum. The upper canopy in single tier mode provides light intensity of 1000 micromoles/m²/s. In two tier mode, canopies provide light intensity of 700 micromoles/m²/s, which is reduced to 500 micromoles/m²/s in three tier mode. Light output is measured by a quantum light meter and transmitted to the controller for user readout.

Refrigeration

Temperature control is provided by a self-contained water-cooled condensing unit with hot gas bypass for continuous compressor operation. An electronic modulating valve provides tight temperature control while ensuring quiet operation. Pressure transducers are included for monitoring the status of the refrigeration system.

Alternative refrigeration methods are available depending on site-specific and/or user-defined requirements. Consult the factory for heat rejection information and other refrigeration options.

Airflow

In multi-tier mode, airflow is directed horizontally across the shelves to provide uniform growing conditions and to allow the use of integrated drain pans. In single tier mode, airflow can be changed at the flip of a switch to a vertically upward direction to suit plant and research needs.

Experiment Protection

User programmable "set and forget" alarms track the chamber's operation versus user-defined set points. This allows for exceptionally accurate monitoring without the need for adjustment every time the set point is redefined. Backup "high/low" alarms provide a further level of protection while visual and audible notification is provided when any alarm is activated. Contacts for connection to a building management system are also included.

Key Product Attributes

- Modular design that easily accommodates variable sizes
- Adaptable shelving and canopies to suit a range of plant heights and lighting intensities
- Horizontal and vertical airflow configurations plus integrated drain pans to suit research requirements
- Product certifications/markings; _cCSA_{US} (NRTL), CE



Easy conversion between one, two and three tier configurations

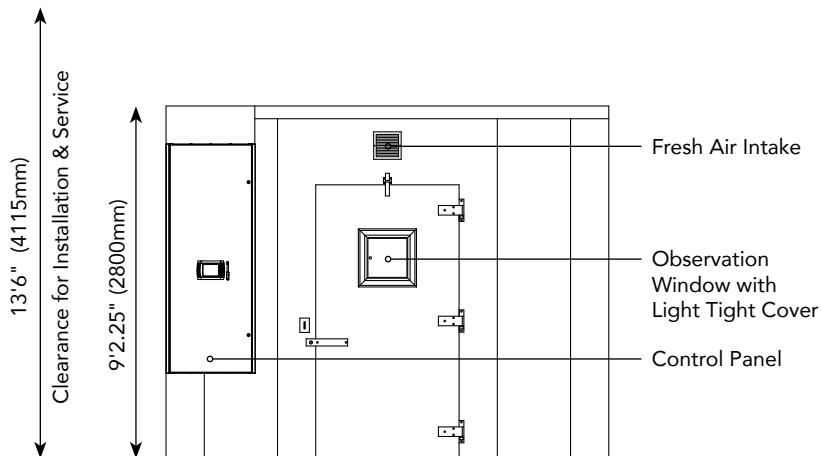
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PLANT GROWTH ROOM

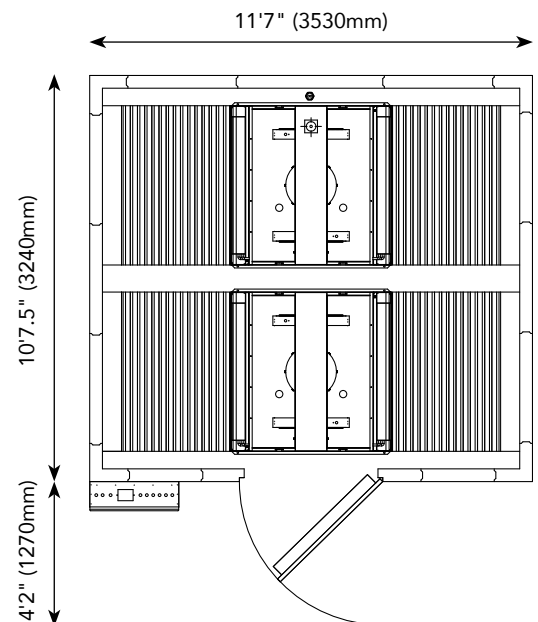
Performance Data

MTPS with Flex Option	Temperature Range (°C)	Growth Area	Growth Height			Exterior Dimensions (WxDxH)
			1 tier	2 tier	3 tier	
MTPS72	15 - 35 lights ON 10 - 35 lights OFF	72ft ² (6.7m ²)	73.5" (1865 mm)	36" (914 mm)	20" (510mm)	11'7" x 5'10" x 9'2.25" 3530 x 1780 x 2800 (mm)
MTPS144	15 - 35 lights ON 10 - 35 lights OFF	144ft ² (13.4m ²)	73.5" (1865 mm)	36" (914 mm)	20" (510mm)	11'7" x 10'7.5" x 9'2.25" 3530 x 3240 x 2800 (mm)
MTPS216	15 - 35 lights ON 10 - 35 lights OFF	216ft ² (20.1m ²)	73.5" (1865 mm)	36" (914 mm)	20" (510mm)	11'7" x 15'5" x 9'2.25" 3530 x 4700 x 2800 (mm)
MTPS288	15 - 35 lights ON 10 - 35 lights OFF	288ft ² (26.8m ²)	73.5" (1865 mm)	36" (914 mm)	20" (510mm)	11'7" x 20'2.5" x 9'2.25" 3530 x 6160 x 2800 (mm)
MTPS360	15 - 35 lights ON 10 - 35 lights OFF	360ft ² (33.4m ²)	73.5" (1865 mm)	36" (914 mm)	20" (510mm)	11'7" x 24'0.5" x 9'2.25" 3530 x 7330 x 2800 (mm)
MTPS432	15 - 35 lights ON 10 - 35 lights OFF	432ft ² (40.1m ²)	73.5" (1865 mm)	36" (914 mm)	20" (510mm)	11'7" x 28'10" x 9'2.25" 3530 x 8790 x 2800 (mm)

FRONT ELEVATION



PLAN VIEW



NOTES:

1. STANDARD REFRIGERATION SYSTEM IS WATER COOLED.
2. CONDENSING UNIT REQUIRES SEPARATE ELECTRICAL SERVICE (60HZ APPLICATION ONLY).
3. DEPTH DIMENSION IS CHAMBER SIZE ONLY. DIMENSION DOES NOT INCLUDE DOOR LATCH.
4. LENGTH AND WIDTH DIMENSIONS ±1/4" (6mm). HEIGHT DIMENSION ±1" (25mm).

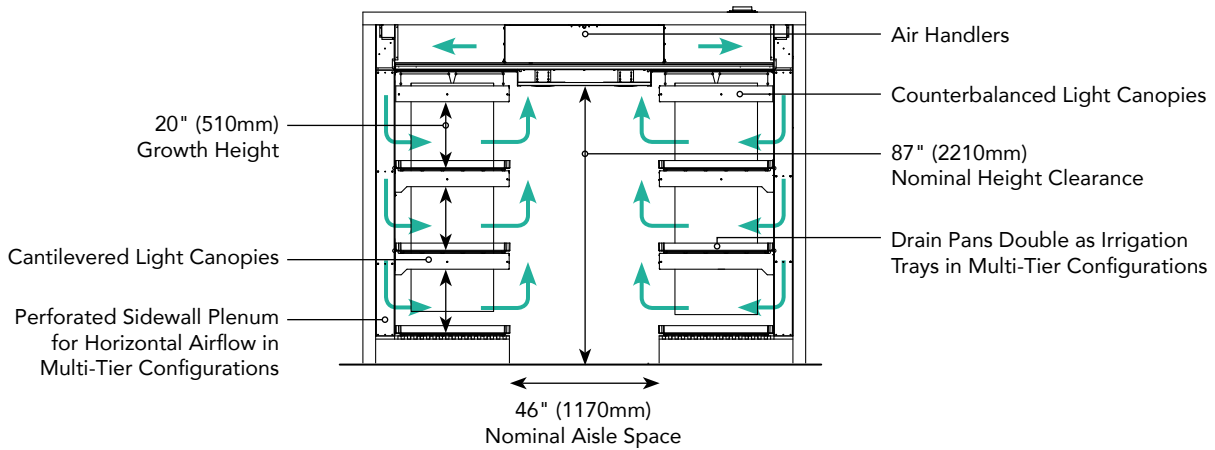
MTPS144 WITH FLEX OPTION

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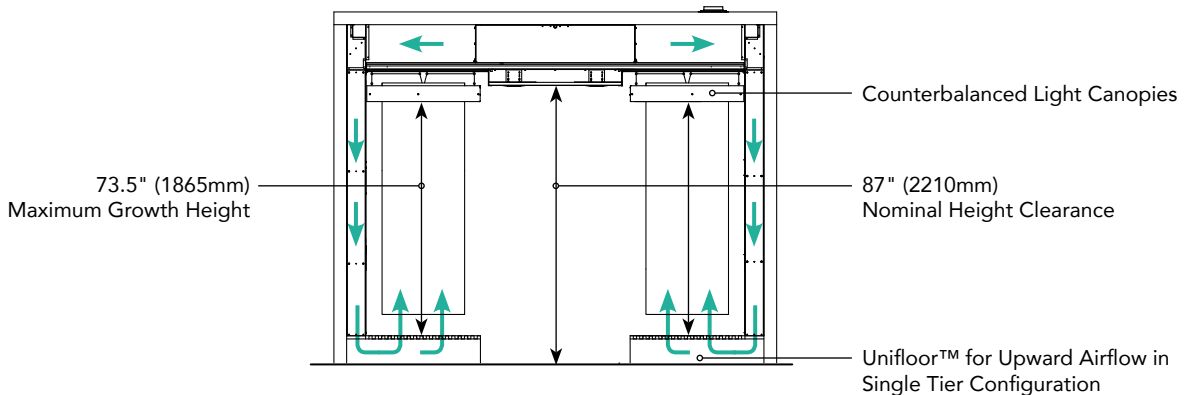
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THREE TIER CONFIGURATION - HORIZONTAL AIRFLOW



SINGLE TIER CONFIGURATION - HORIZONTAL OR UPWARD AIRFLOW (UPWARD SHOWN)



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