

# Plant Growth Chamber MTR30- Multi Tier



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## Product Overview/Applications

The MTR30 has features very similar to the MPGR15. However, the MTR30 contains two shelves thereby doubling the growth area available in the MPGR15, yet with the same footprint. With 30ft<sup>2</sup> (2.79m<sup>2</sup>) of growth area and 25 inches (635mm) of growth height, the MTR30 is suitable for a range of applications including the growth of short to medium height plants that require moderate light intensity. The chamber is shipped fully assembled, fits through standard doorways, and has a low overall height for confined ceiling spaces. Please consult Meditech with your particular application and area of research and we will provide you with an overview of the available options.

## Lighting

The standard light intensity for the MTR30 is 600 micromoles/m<sup>2</sup>/s using both T8 fluorescent and halogen incandescent lamps which results in a broad based lighting spectrum. The fluorescent lamps come standard in a 6-foot length for each shelf. Lighting is switched in two levels for each lamp type and is monitored by a quantum light meter and displayed in micromoles/m<sup>2</sup>/s on the controllers status screen for user readout. Lamp heat is controlled and managed by the refrigeration system.

## Airflow

Airflow is distributed to the two shelves through two Meditech Uni-floor systems – one at the floor level and another just below the second shelf. The air is discharged upward resulting in uniform air distribution throughout the growth area. The unit includes fresh air intake and exhaust ports which are adjustable to allow up to 20 ft<sup>3</sup>/min (0.57m<sup>3</sup>/min.) of air exchange.

## Refrigeration

Cooling for the MTR30 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 options for cooling.

## 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

- 31ft<sup>2</sup> growth area and 25 inches of growth height over two shelves for low to medium height plants
- Low overall height of 78 inches to accommodate low ceilings
- Shipped fully assembled – fits through standard doorways
- Product certifications/markings; CE



## Performance Data

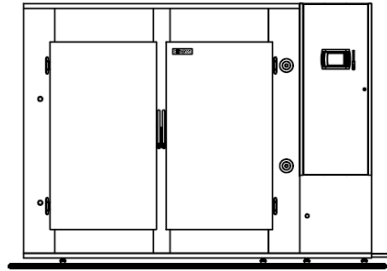
Temperature Range (°C)	Shelf Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	Light Intensities (6in. from lamp)	Electrical Service	Weight
10 – 45 lights on	31 ft <sup>3</sup>	30ft <sup>2</sup>	25 ”	104” x 35” x 78”	600 µmoles/m <sup>2</sup> /s	120-1Ø-60Hz	2485 lb
4 – 45 lights off	940 L	(2.79m <sup>2</sup> )	635 mm	2640 x 890 x 1980 (mm)	@ 25°C	220-1Ø-50Hz	1127kg



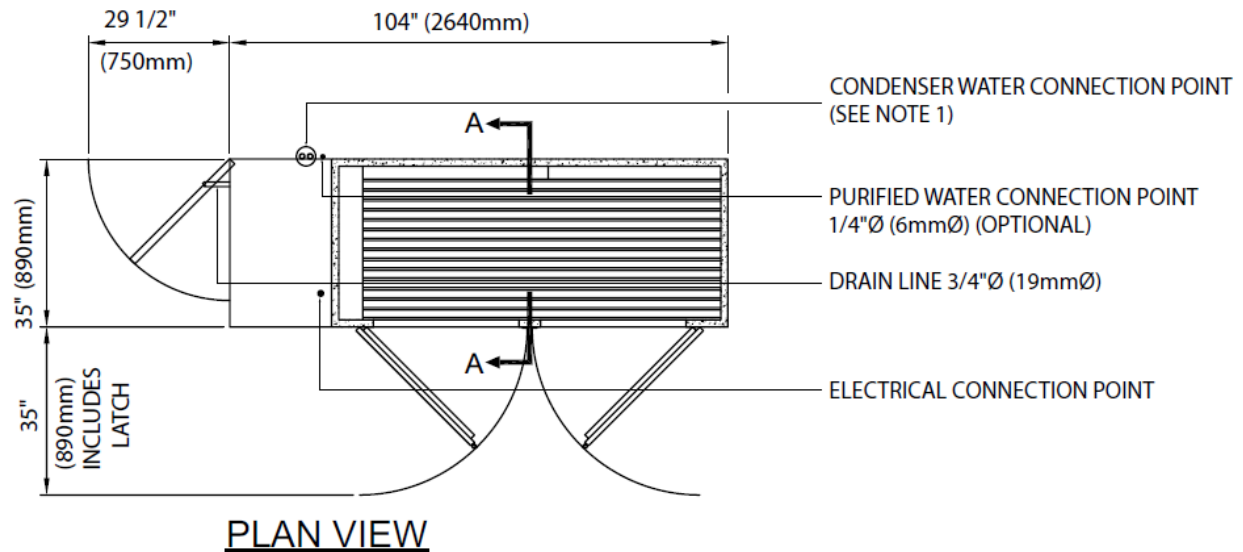
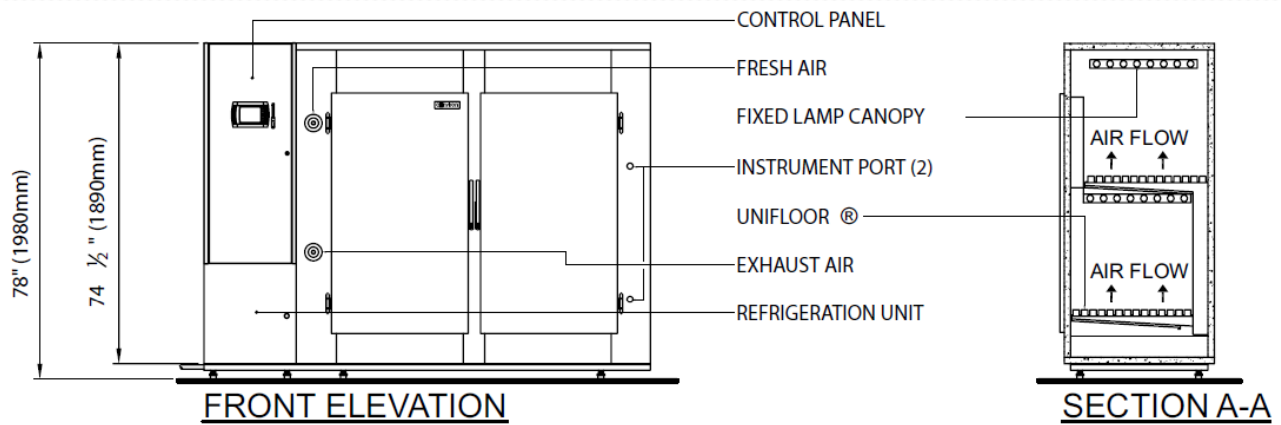
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## NOTES:

1. STANDARD REFRIGERATION SYSTEM IS WATER COOLED. (1/2"Ø (13mmØ) CONNECTION)
2. REQUIRES A MINIMUM OF 2" (51mm) FROM REAR OF CHAMBER TO BACK WALL.
3. CASTOR OPTION ADDS 2" (51mm) TO OVERALL HEIGHT OF CHAMBER.
4. DEPTH DIMENSION IS CHAMBER SIZE ONLY. DIMENSION DOES NOT INCLUDE DOOR LATCH OR PIPING ON BACK WALL.
5. LENGTH AND WIDTH DIMENSIONS ±1/4 (6mm). HEIGHT DIMENSION ±1" (25mm).



**RIGHT HAND  
CONTROL PANEL**



**PLAN VIEW**