



TCR Series

MULTI-TIER WALK-IN

PLANT GROWTH

DATA SHEET

 CONVIRON®

TCR SERIES MULTI-TIER WALK-IN



TISSUE CULTURE

Product Overview/Applications

The TCR walk-in room provides a multi-tier modular platform available in increments of 60ft². This makes the TCR chamber suitable for research involving plant tissue culture and is often used within large micropropagation programs. The solid side wall plenums transfer air to individual air shelves ensuring upward airflow from each individual shelf, which is essential to mitigating condensation within media dishes.

Lighting

The standard lighting package for the TCR model generates low to moderate light intensities and incorporates fluorescent lamps. Intensities are ideally suited for tissue culture research. Multiple lighting levels can be programmed with the CMP6050 control system while higher light intensities are available as an option.

Airflow

A center column conditioning coil directs air through pressurized sidewall plenums which is then directed into each individual air shelf. Uniform vertical airflow from each shelf ensures that a precise volume of air is directed upward around the media containers. Filtered and adjustable fresh air intake and exhaust openings enable researchers to manage exchange air to the chamber.

Refrigeration

The standard refrigeration system for the TCR incorporates a water-cooled condensing unit for heat exchange and 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 for this equipment platform 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

- Multi-tier design maximizes tissue culture area
- Pressurized sidewall plenums deliver uniform vertical airflow to mitigate or eliminate condensation
- Product certifications/markings; cCSA_{US} (NRTL), CE



Performance Data

	Temperature Range (°C)	Interior Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	Light Intensities (6in. from lamp)	Electrical Service	Weight
TCR60	15 – 40 lights on	99ft ³	60ft ²	20"	10'7.5" x 5'10" x 9'2.25"	200 µmoles/m ² /s	120/208-3Ø-60Hz	4610lb.
	5 – 40 lights off	(2803l)	(5.6m ²)	(510mm)	3240 x 1780 x 2800 (mm)	@ 25°C	220/380-3Ø-50Hz	(2091kg)
TCR120	15 – 40 lights on	190ft ³	120ft ²	20"	10'7.5" x 10'7.5" x 9'2.25"	200 µmoles/m ² /s	120/208-3Ø-60Hz	5800lb.
	5 – 40 lights off	(5380l)	(11.2m ²)	(510mm)	3240 x 3240 x 2800 (mm)	@ 25°C	220/380-3Ø-50Hz	(2631kg)
TCR180	15 – 40 lights on	290ft ³	180ft ²	20"	10'7.5" x 15'5" x 9'2.25"	200 µmoles/m ² /s	120/208-3Ø-60Hz	7200lb.
	5 – 40 lights off	(8211l)	(16.7m ²)	(510mm)	3240 x 4700 x 2800 (mm)	@ 25°C	220/380-3Ø-50Hz	(3266kg)

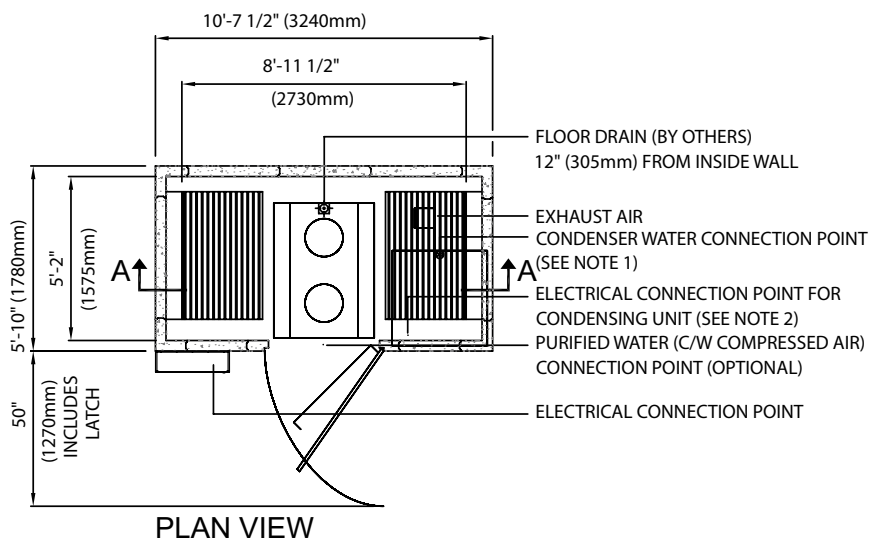
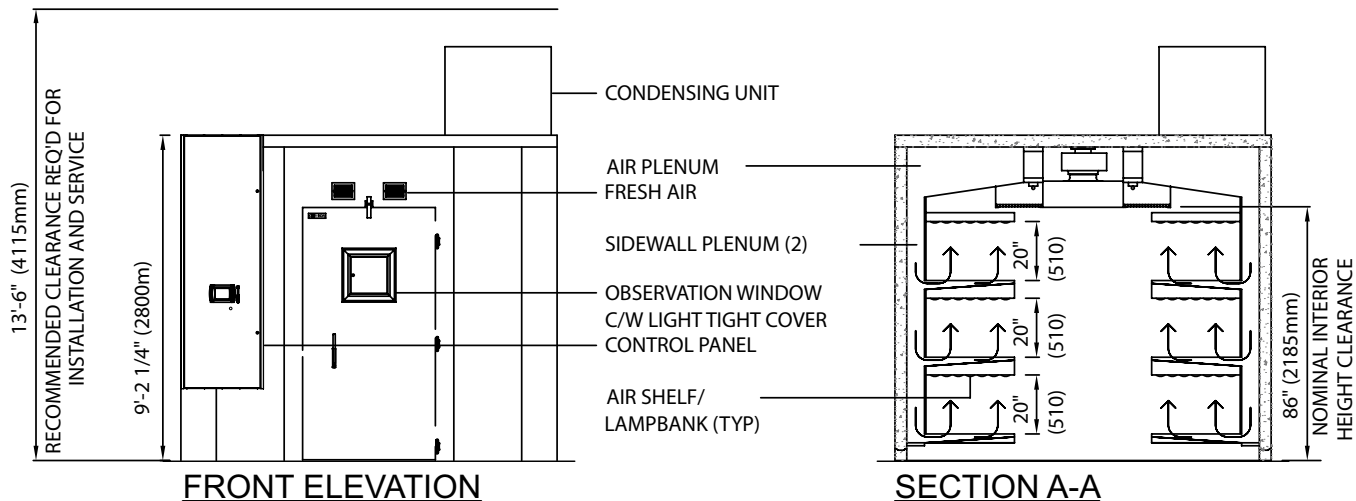
CONVIRON MODEL TCR SERIES

TISSUE CULTURE CHAMBER



NOTES:

1. STANDARD REFRIGERATION SYSTEM IS WATER COOLED (3/4"Ø (19mmØ) CONNECTION).
2. CONDENSING UNIT REQUIRES A SEPARATE ELECTRICAL SERVICE.
3. LENGTH AND WIDTH DIMENSIONS ±1/4 (6mm). HEIGHT DIMENSION ±1" (25mm). DO NOT SCALE DRAWING.



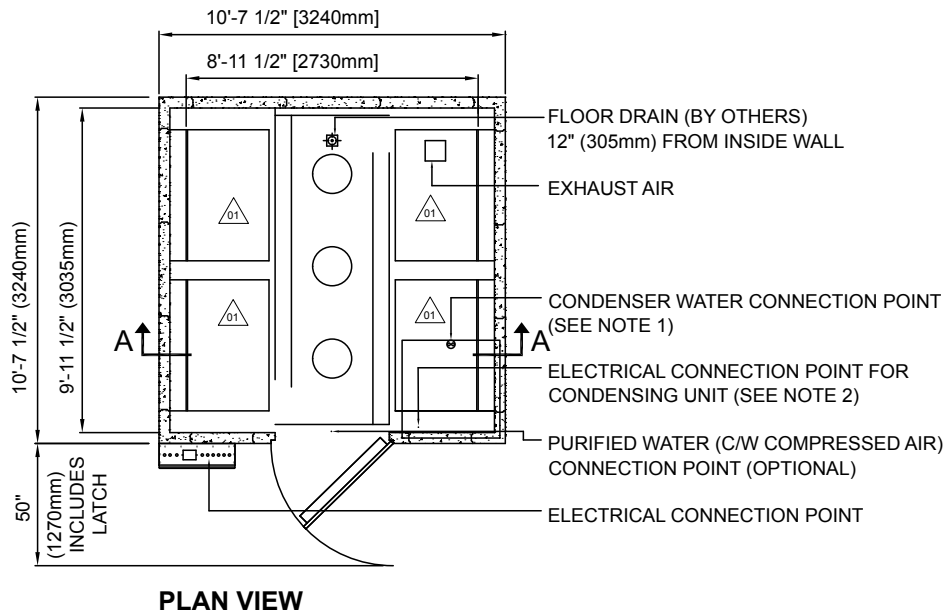
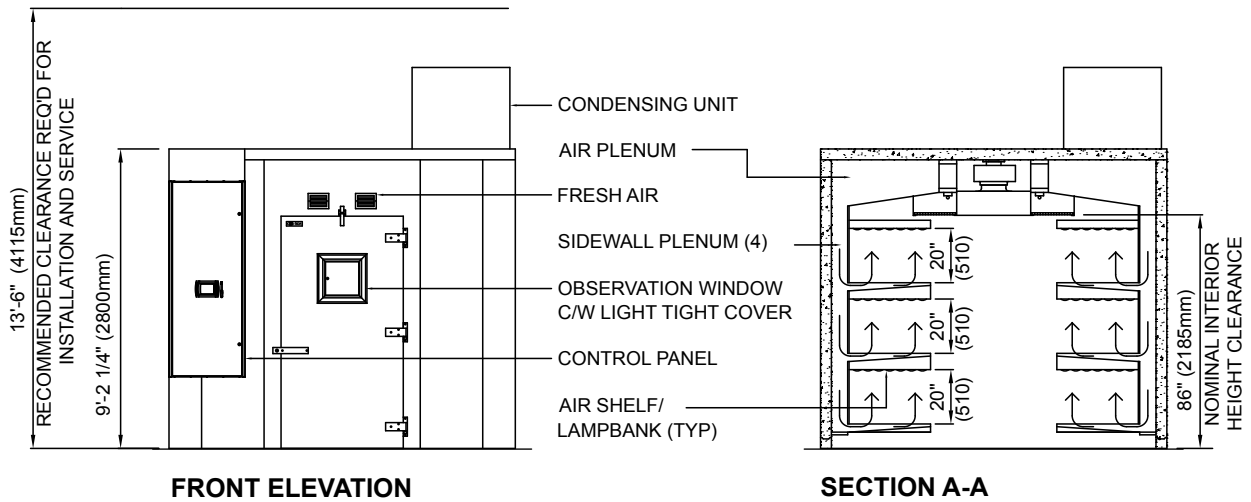
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NOTES:

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2. CONDENSING UNIT REQUIRES SEPERATE 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).



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TISSUE CULTURE CHAMBER



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