



TC30

MULTI-TIER REACH-IN

PLANT GROWTH

DATA SHEET

TC30 REACH-IN



TISSUE CULTURE

Product Overview/ Applications

The TC30 is specifically designed for tissue culture research. However, with its 25" (635mm) growth height, the chamber is also suitable for growing short plants that require low light intensity. The chamber provides two shelves that channel the airflow through the shelves discharging it upward. This helps to minimize the formation of condensation inside the lids of Petri dishes and other tissue culture vessels. The TC30 ships fully assembled and fits through standard doorways. Please consult Conviron regarding specific requirements.

Lighting

Standard lighting for the TC30 is energy efficient T8 fluorescent and halogen incandescent lamps. The light fixtures are fixed above each air shelf. Heat from the lamps and ballasts is controlled and managed by the refrigeration system. Lighting control provides 3 light levels and is monitored by a quantum light meter and displayed in micromoles/m²/s on the controllers status screen for user readout.

Airflow

Airflow is distributed uniformly upward from each air shelf which helps to ensure a consistent temperature zone over each shelf. Filtered and adjustable fresh air intake and exhaust openings enable researchers to exchange air to the chamber in a controlled manner up to 20ft³/min (0.57m³/min).

Refrigeration System

Cooling is provided by a self-contained air-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 for this equipment platform depending on site-specific and/or user-defined requirements.

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

- Two shelves with a total growth area of 30 ft²
- Upward airflow through each shelf to minimize the formation of condensation on vessels
- Shipped fully assembled – fits through standard doorways
- 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
10 – 45 lights ON	31ft ³	30ft ²	25"	104" x 35" x 78"	200 μmoles/m ² /s	120/208-1Ø-60Hz	1380lb.
4 – 45 lights OFF	(940l)	(2.79m ²)	(635mm)	2640 x 890 x 1980 (mm)	@ 25°C	220/380-1Ø-50Hz	(626kg)

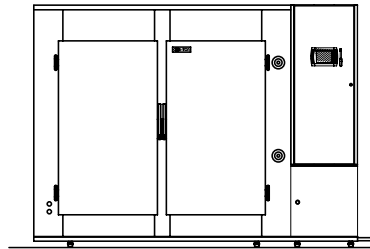
CONVIRON MODEL TC30

TISSUE CULTURE CHAMBER

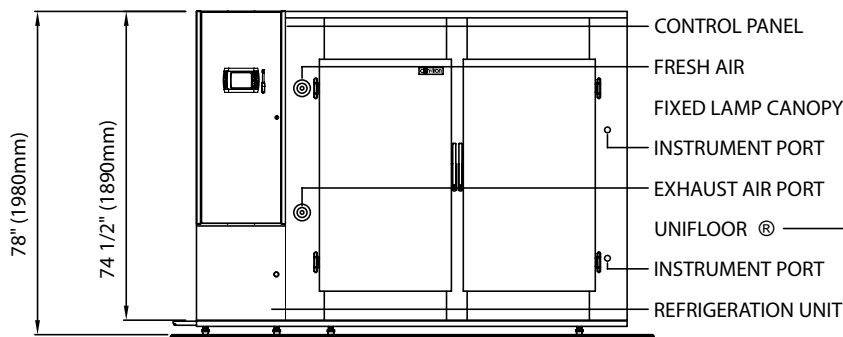


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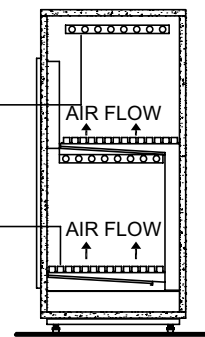
1. STANDARD REFRIGERATION SYSTEM IS SELF-CONTAINED AIR-COOLED. WATER COOLED REFRIGERATION (1/2"Ø (13mmØ) CONNECTION) IS OPTIONAL.
2. REQUIRE A MINIMUM OF 2" (51mm) FROM REAR OF CHAMBER TO BACK WALL.
3. CASTER OPTION ADDS 2" (51mm) TO OVERALL HEIGHT OF CHAMBER.
4. DEPTH DIMENSION IS CHAMBER SIZE ONLY.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



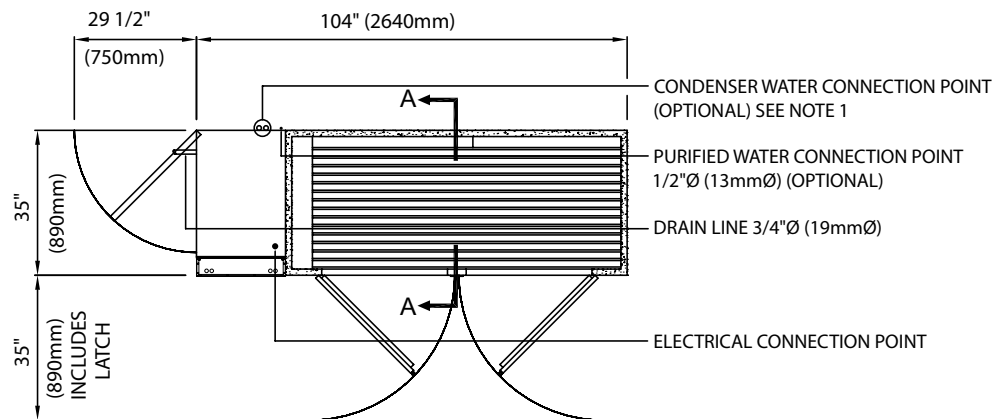
**RIGHT HAND
CONTROL PANEL**



FRONT ELEVATION



SECTION A-A



PLAN VIEW

