



MITRE SERIES

CO₂ Cell Culture Incubators- "Tropicool" Variants

Contherm has achieved wide recognition as a manufacturer of high-precision environmental chambers for the laboratory professional. To deal cost-effectively with bacteriological culturing in the tropics, Contherm has developed the Tropicool system. The heart of this system and serving as the active cooling element, is a semi-conductor device which contains no moving parts or plumbing, yet is very effective at transferring heat energy. This entirely new thermoelectric technology gives the Contherm **Mitre Series "Tropicool" Variant** incubators a new dimension in quality and performance.

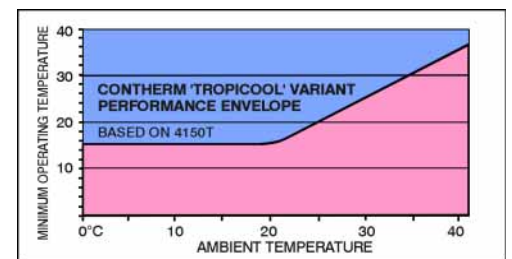
With low power consumption, operating temperatures of 25°C at an ambient of 30°C (4150T), for instance, can be achieved. The **Mitre Series "Tropicool" Variant** Incubators enable quality incubating in the tropics, and B.O.D. work in temperate regions. Plate and sample drying problems are greatly reduced with the "Tropicool" system, with higher than "normal" humidities being maintained due to the elevated dew point.

Using proven technology, a precise environment is created for tissue and cell propagation. These models feature an anticipative logic system controlling both temperature and CO₂ levels, which is achieved through a combination of temperature/gas sensors and inject/recovery functions managed by the microprocessor system. Dedicated LED displays monitor these functions. The Contherm Infra-Red CO₂ sensor is a modulated pyro-electric system developed for use in the humidified incubator environment. The sensor monitors CO₂ levels over a range of 0.3-19.9% with control of ±0.15%. Humidity levels higher than 70% RH at 37°C can be achieved using a more effective vaporisation technique.

The Contherm microprocessor-based control system is EEROM backed to save set-points and calibration factors during power failures, with all models featuring alarm displays and automatic high/low limit protection. The **Mitre Series "Tropicool" Variants** feature an attractive, corrosion-resistant finish on a steel exterior, with 50mm of specialised insulation surrounding the polished stainless steel interior and door. Adjustable non-tilt shelves are easily removed for cleaning and sterilisation, as are all the interior fixtures. Within the air jacket at the top and rear of the cabinet, air is circulated over a stainless steel sheathed tubular heater. Featuring unique catch and hinge componentry, the fully-sealed toughened NZS1223 glass inner door incorporates an integral heater to prevent condensation, and enhance the humidity and temperature envelopes.

The Contherm **Mitre Series "Tropicool" Variants** offer the research professional maximum performance and reliability, assuring consistent and repeatable results. Contherm incubators are equipment-friendly, and comply with AS/NZS 2064 EMC Standards.

Manufactured in a quality production environment, these units are designed to AS/NZS3350 and IEC335 electrical standards.



More technical information is available from the Contherm Techspec Library. Refer to our website for current information. The word 'Contherm' is the property of Contherm Scientific Ltd. Warranty covers components and labour for 1 year. Full warranty applies only with regard to published price list. The information contained in this brochure is correct at time of printing but is subject to change without notice.

Manufactured by **CONTHERM SCIENTIFIC LTD**, 27 Cornish St, Petone, New Zealand. Tel: +64-4-568 8034 Fax: +64-4-568 8095. Email: contherm@xtra.co.nz Website: www.contherm.com

Creating the ideal biotechnical environment for cell culture in the Tropics, achieving 25°C in a 30°C Ambient.

NOW WITH INFRA-RED SENSOR
FOR MORE INFORMATION TALK TO CONTHERM



Model 4150T Tropicool Variant

Specifications

Model	4150T	4200T	4400T
Exterior Dimensions (W x H x D)	630 x 920 x 780mm	790 x 960 x 830mm	790 x 1560 x 830mm
Interior Dimensions (W x H x D)	470 x 640 x 480mm	630 x 665 x 510mm	630 x 1240 x 510mm
Effective Capacity	155 litres	200 litres	400 litres
Shelves: Stainless Steel Perforated	3	3	6
Temperature Range	See graph showing performance envelope (Maximum +50°C)		
Temperature Accuracy:	Temporal Accuracy ±0.3°C Spatial Accuracy ±0.4°C		Tested Empty at: 37°C 20°C Ambient
Humidifying Method	Natural Vaporisation with Humidity Pan, more than 70% RH at 37°C.		
CO ₂ Control	Microprocessor Control, Accuracy at 37°C 5% CO ₂ +0.15%. Dedicated LED Display		
CO ₂ Range	0.3 - 19.9%		
Inlet CO ₂ Supply Pressure	0.3kg/cm ²		
Alarm System Output	Audible and Visual Alarm Temperature, CO ₂ , Door Ajar, Independent Overtemperature Protection, Connection for External Alarm Activation (Option)		
Power Supply	400W at 230 Volt, 50hz Supply	600W /230 V, 50Hz	
Weight	90kg	103kg	120kg
Packed Weight	96kg	117kg	137kg
Options (full list available)	HEPA Filter-Option HF; CO ₂ cylinder Autochangeover-Option A; Cable Port-Option Z		

Specifications subject to change without notice.