



# North Sciences

## New TEC<sup>2</sup> -86°C Ultra Low Temperature Freezer

The next generation of the safest ULT for  
Biomedical and Pharmaceutical Cold Storage.



### Total Sample Security and Peace of Mind

#### 100% Refrigeration Redundancy, Cloud Based Monitoring

North Sciences Series of Ultra Low Temperature (ULT) Freezers with TEC<sup>2</sup> technology with natural, hydrocarbon-based refrigerants to lower GMP, with 100% redundancy provided by two complete and independent refrigeration systems.

Standard ultra-low freezers rely on a cascade refrigeration system. If this system fails, an LN<sub>2</sub> or CO<sub>2</sub> backup can only sustain temperatures for approximately 7 hours. Your samples will need to be moved quickly. Maintenance, refilling, and supervision are also required with LN<sub>2</sub> and CO<sub>2</sub> backups. With TEC<sup>2</sup> technology, there is no need to move your samples in a rush or worry about LN<sub>2</sub> or CO<sub>2</sub> backups.

Maintaining temperature and uniformity is important, but being aware of external conditions and forces that have the potential to influence the freezer's performance makes the TEC<sup>2</sup> the World's First ULT freezer offering smart, situational awareness for complete performance monitoring and Total Sample Security.

Monitoring everything from inside out, 24/7. TEC<sup>2</sup> Ultra Low Freezers are integrated with Traceable® data logger, including a one-year subscription to TraceableLIVE® cloud-based control and monitoring services, supported by Antylia Scientific.



Ergonomic  
locking handle

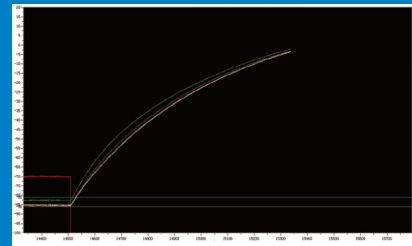
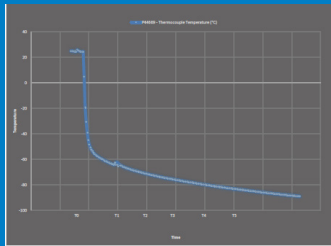


## Unmatched Performance & Reliability, Total Sample Security

- Perfect for COVID-19 Vaccines, critical material storage in biorepositories, medical research facilities, BSL4 labs, hospitals, or anywhere valuable samples need to be stored safely.
- Sample security: 2 core, 2 refrigeration system, 2 control commands for compressors, enabling one system to maintain temperature if the other is disabled.
- Fast, dual cooling system enables faster pull down (4.5hr) & door opening recovery times (80min) after 2min door opening.
- Above industry standard ( $\pm 2.5^{\circ}\text{C}$ ) uniformity ensures your samples are being stored within the proper temperature range to maintain integrity.
- 50-90% more sample storage in the same space.
- Frost free: interlocking gasket design and heated door seal reduces frost accumulation on the inner compartment doors.
- Only freezer aware of its own environment with smart, self-monitoring features.
- Lockable, ergonomically designed door handle for easy and secure access.
- 7" color touch screen panel allows full user control.
- GLP conformity makes transferring logged data to a PC simple and convenient.
- Best insulation: combining vacuum insulation panels with high efficiency dual layered insulated inner doors ensures longest cold retention and recovery times.

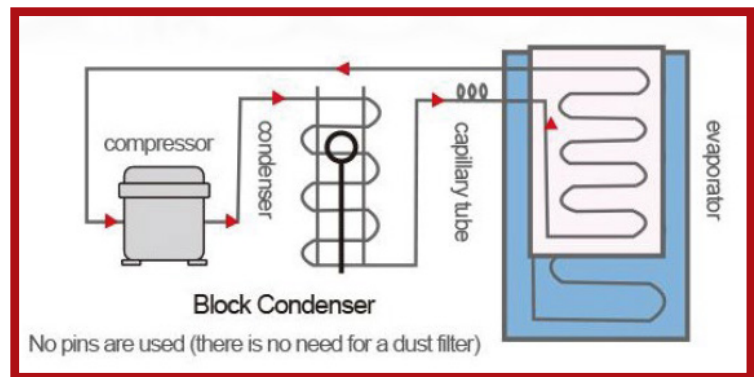
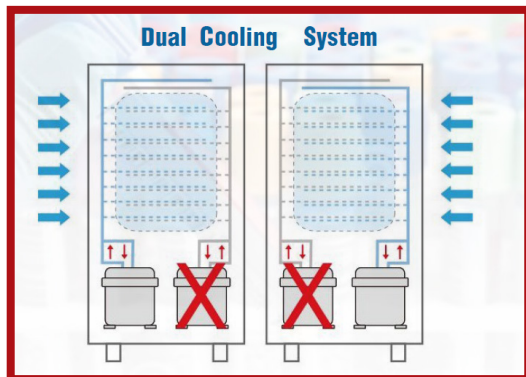
*Choose from 588, 728 & 838 Liters*

*Available in 110V, 208V and 220V - 50/60Hz*



## TEC<sup>2</sup> -86°C Dual Cooling ULT Freezer Advantages

- Advanced 7" touch screen control panel with data monitoring
- Vacuum Insulated external door panel
- Ergonomic and safety door latch
- Magnetic door gasket to ensure proper sealing
- Door switch to protect samples
- Air intake vent grille
- Easy access condensing filter
- Accessible front panel
- Heavy duty adjustable casters
- USB port for data download of recent 10,000 readouts
- Remote alarm contacts
- Power switch
- Spacers to ensure proper positioning of the freezer
- 2 access ports
- Removable inner doors with latches for easy cleaning or defrosting



## All TEC<sup>2</sup> Models:

- ✓ Type: upright
- ✓ Inner doors: 2pcs, forming door
- ✓ Shelves: 3pcs, SUS304
- ✓ Inner chamber material: SUS304
- ✓ Cooling type: direct cooling
- ✓ Controller: microprocessor
- ✓ Refrigerants: natural low GWP, hydrocarbon, CFC free
- ✓ Cooling System: TEC2 Independent Systems
- ✓ Compressor brand: SECOP
- ✓ Sensor: PT100
- ✓ Display & Control: 7" touch screen
- ✓ Casters: 4
- ✓ Test hole diameter: 1/25mm
- ✓ Remote alarm contact
- ✓ USB and RS232/485 Port

**Ambient Temperature:**  
**10 to 32°C**

**Temperature Range:**  
**-40 to -86°C**

Model		TEC-8515	TEC-8520	TEC-8525	TEC-8530
Capacity (L/cu ft)		408/14.4	588/20.7	728/25.7	838/29.7
Noise level (dB)		50	51	52	53
Voltage/Frequency		115V, 60Hz option 208-220V, 60Hz	115V, 60Hz option 208-220V, 60Hz	115V, 60Hz option 208-220V, 60Hz	208-220V, 60Hz
Power (W)		845	815	850	900
Power Consumption (kWh/24h)		11.6	12	12.77	13.86
BTU - H		2780	2780	2900	3070
KWh - Cu ft		0.58	0.58	0.49	0.47
Outlet		NEMA 5-15	NEMA 5-15	NEMA 5-15	NEMA 6-15
Capacity for 2ml vials		28,800	40,000	50,000	60,000
2" boxes capacity		288	400	500	600
Internal (W x D x H)	mm	606 x 575 x 1180	606 x 738 x 1310	963 x 571 x 1350	894 x 718 x 1310
	inch	23.8 x 22.6 x 46.5	23.8 x 29 x 51.6	38 x 22 x 53	35 x 28 x 51.5
External (W x D x H)	mm	891 x 992 x 1945	885 x 1100 x 1995	1248 x 975 x 1995	1179 x 1135 x 1995
	inch	35 x 39 x 76.5	35 x 43.5 x 78.5	49 x 38 x 78.5	46.5 x 45 x 78.5
Packing (W x D x H)	mm	954 x 955 x 2094	970 x 1138 x 2185	1320 x 1010 x 2184	1270 x 1105 x 2220
	inch	37.6 x 37.6 x 82.4	38 x 45 x 88	52 x 40 x 88	50 x 44 x 88
Net/Gross weight (kg)		285/317	335/363.5	380/400	397/430



### Alarms:

- High/low temperature
- Power off failure
- Abnormal voltage
- Sensor error
- Filter screen check
- Controller failure
- Low battery
- Condenser malfunction
- High ambient temperature
- Door ajar

### Optional Features:

- Temperature recorder
- Freezer racks
- CO<sub>2</sub> backup system



# inTEST Thermal Solutions

an inTEST Company

inTEST Thermal Solutions (iTS) specializes in the design and manufacture of thermal test and process cooling systems. Our breadth of products and in-house engineering capabilities allow us to be a single-partner-solution for thermal test and process cooling needs.

We are recognized globally for our expertise in precise control of extreme thermal environments, from -185 to +500°C, with rapid transitions or long dwell times. The iTS family includes four product brands: Temptronic, Sigma Systems, Thermonics, and North Sciences. inTEST Thermal Solutions is a wholly owned subsidiary of inTEST Corp, Mount Laurel, New Jersey, USA.



Temptronic



Sigma Systems



Thermonics



North Sciences

## ABOUT NORTH SCIENCES

Our North Sciences product line specifically offers ULT freezers, Lab Freezers, Medical Grade Refrigerators, and Biomedical Cold Storage solutions ranging from small and portable to powerful, large storage units. Our wide selection of -86°C, Ultra-Low-Temperature (ULT) freezers provide you with the most dependable performance and low maintenance while meeting a wide range of industry requirements.

With North Sciences, you're given the ultimate peace of mind with true sample security through our innovative technology capabilities and unique design. Stock is available and located in Boston, MA.



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