

# X-Treme Series

## AUTO DRY CABINETS

### DEHUMIDIFICATION CABINETS



Nominated for the  
**productronica**  
Innovation Award 2025



# THE FASTEST DRY STORAGE CABINETS

*For Drying & Baking Electronic Components*

made in  
**INNOVATION**  
emtelectronics.com

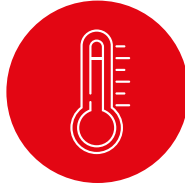
**EMT**  
ELECTRONICS

# The Perfect Climate

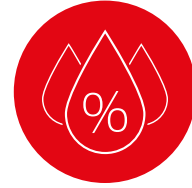
## for your Critical Components



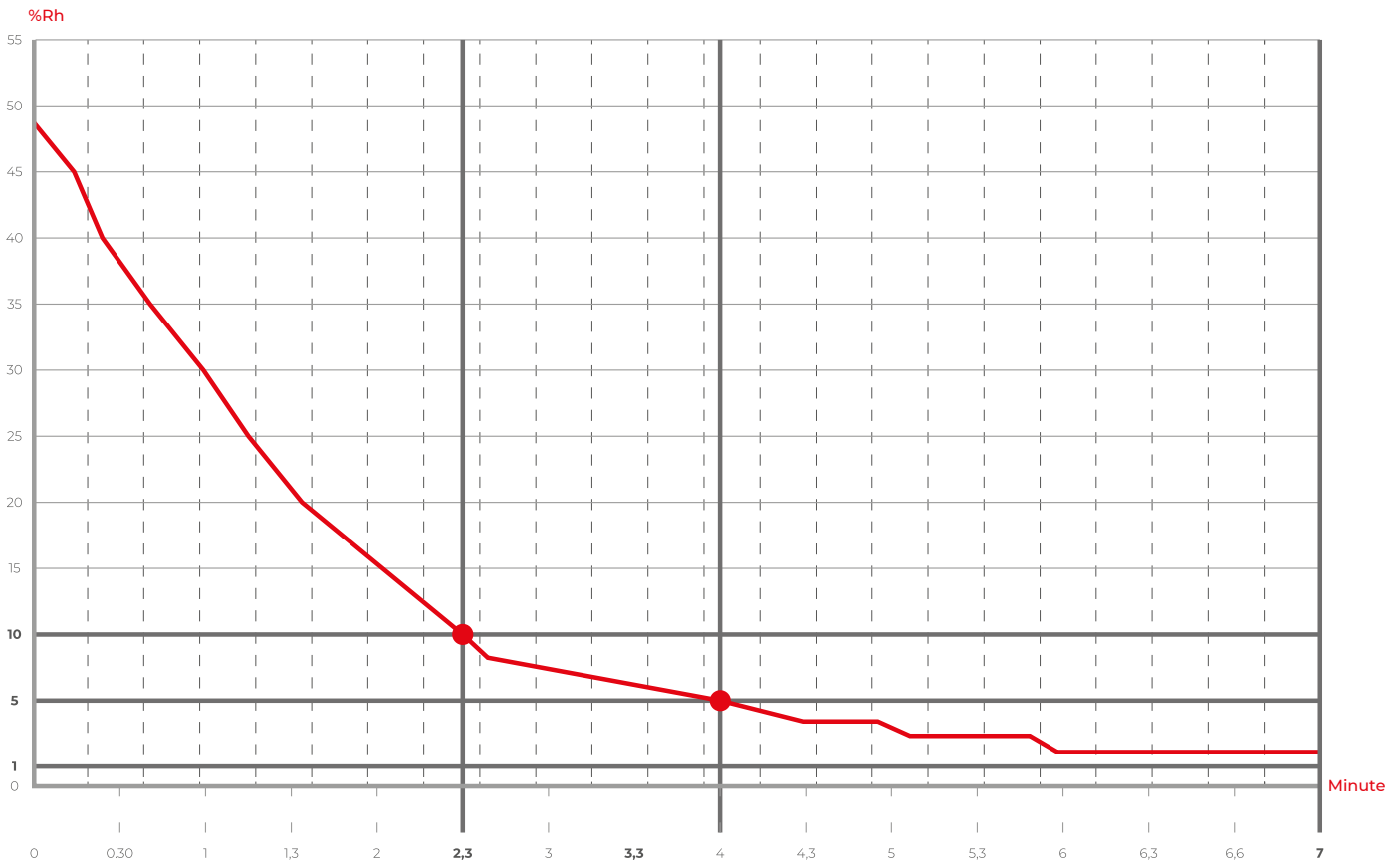
**Accuracy**  
 $\pm 0,3 \text{ RH} / \pm 0,5 \text{ }^\circ\text{C}$



**Temperature**  
2°C, 15°C, 45°C, 60°C, 125°C



**Humidity**  
%0,5 RH–%95 RH



**From 50%Rh to 5%Rh  
in under 4 minutes!**

**From 50%Rh to 1%Rh  
in under 7 minutes!**

\*Performance may vary based on cabinet configuration and operating conditions.

# THE FASTEST DRY STORAGE CABINETS

EVERY COMPONENT DESERVES  
PERFECT STORAGE

**X-Treme Series** Auto Dry Cabinets provide next-generation protection for moisture- and oxidation-sensitive materials.

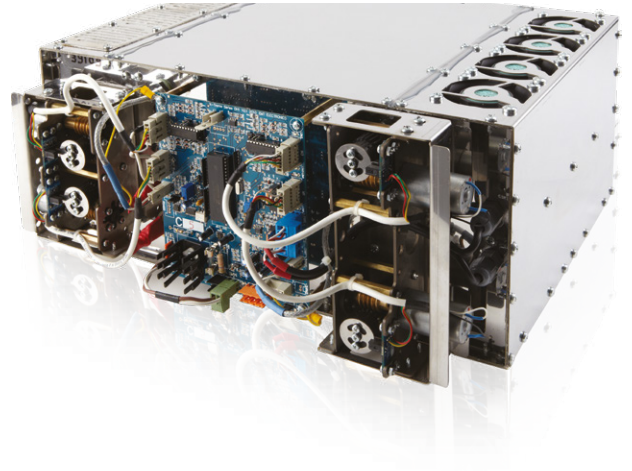
With plug-and-play simplicity, intelligent design, and energy-efficient operation, they safeguard critical components, cut operating costs, and keep workflows seamless.



# DRYING METHODS

## Auto Dry Cabinets (Dryer)

**X-Treme Series Dry Cabinets** deliver plug-and-play humidity control with zero setup or consumables. The proprietary dryer unit is maintenance-free, self-regenerating, and built to last the full lifetime of the cabinet. Optional dual dryers ensure continuous 24/7 performance with smart cycle switching.



## Smart Nitrogen Cabinets (N<sup>2</sup>)

Nitrogen's inert nature creates a stable, dry atmosphere that prevents corrosion and moisture absorption.

The Smart Nitrogen System efficiently maintains target humidity while minimizing gas use. Equipped with a nitrogen unit, the cabinets purge automatically until the desired humidity is reached. An optional O<sub>2</sub> sensor ensures precise control, allowing nitrogen purge to continue until the optimal O<sub>2</sub> level is achieved.



7

$2s^2 2p^3$

**N**

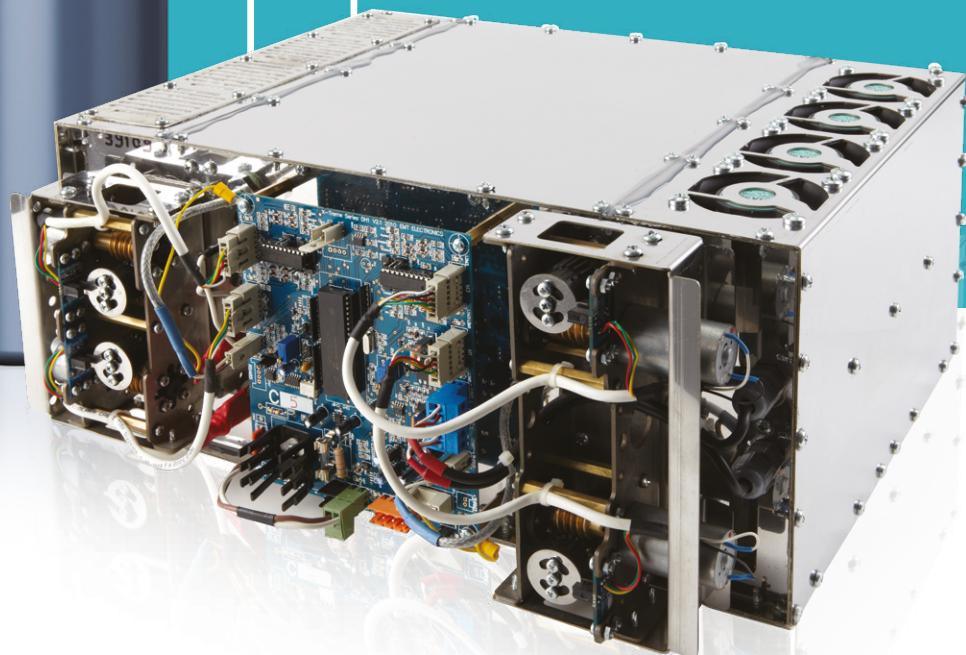
**Nitrogen**  
14.007

# Hybrid Cabinets (Dryer + N<sup>2</sup>)

Hybrid systems dynamically switch between nitrogen purging and dryer-based dehumidification. Once the target humidity is reached, nitrogen flow is automatically halted, and the dryer maintains the internal environment eliminating excess gas use.

## Key Advantages:

- Oxidation-free storage with reduced nitrogen use
- Smart switching for nonstop protection
- Lower costs and time-saving efficiency
- Perfect where speed and ultra-dry conditions matter.



# 0.5 %Rh



# HUMIDITY CONTROL

## Humidity Management Redefined

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### **Ultra-Fast Dehumidification**

≤1% RH in under 7 minutes.

### **Ultra-Low Humidity Performance**

Achieve humidity level as 0.5% Rh ideal for storing and protecting.

### **Homogeneous Airflow**

A precision-engineered circulation system.

### **Built for Long-Term Stability**

Engineered to perform for 10+ years.

### **Continuous Dehumidification**

Dual dryer units provide uninterrupted dehumidification.

### **Precision Humidification Control**

Optional high-humidity settings up to 95% Rh.

# TEMPERATURE CONTROL

## Advanced Temperature Management

### Cooling and Heating Options:

Choose from 2°C, 15°C, 45°C, 60°C, or 125°C, supported by intelligent software that maintains consistent internal conditions with pinpoint accuracy.

### Unmatched Sensor Precision

- Humidity Accuracy:  $\pm 0.3\%$  RH
- Temperature Accuracy:  $\pm 0.5^\circ\text{C}$

### High-Accuracy Environmental Control

X-Treme Series Auto Dry Cabinets provide a stable, precisely controlled environment with high-performance sensors and intelligent accessories for your most sensitive materials.

### Ambient Condition Monitoring

Integrated internal and external sensors continuously measure and log humidity and temperature.

**125°C**  
INTERNAL  
TEMPERATURE



# REAL-TIME MONITORING (RMS) & SECURE ACCESS

## Monitoring & Control

### **Remote Monitoring & Alerts**

With the Remote Monitoring System (RMS), you can monitor cabinet data. Automated email alerts notify you instantly when pre-set humidity or temperature thresholds are exceeded.

### **Power Usage Control**

X-Treme Series Dry Cabinets can be equipped with advanced power monitoring hardware designed to track and optimize energy consumption in real time.

### **Automatic Door Locking System**

Protect your inventory with automated door locks controlled via password or RFID authentication.

### **RFID Access Control**

Manage up to 50 authorized users with personalized access credentials.

### **7" Touch Screen Panel (800x480px)**

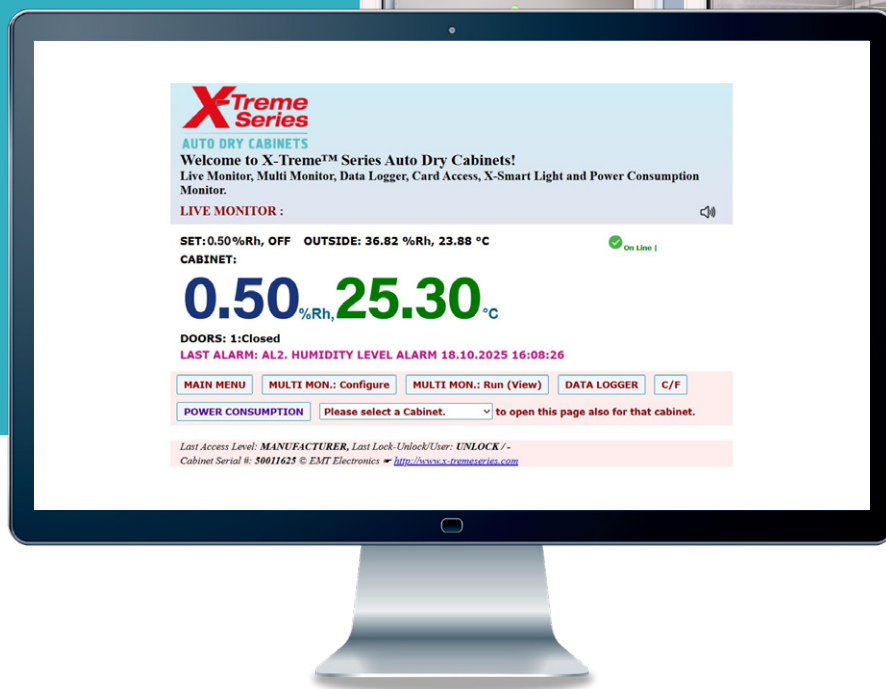
Intuitive touch interface for quick access to all cabinet data and settings, displayed in a clear 800x480px resolution.

### **Industry 4.0**

Remote access via Wi-Fi or Ethernet, real-time humidity/temperature monitoring, and graphical datalogger analysis.

# TRACE EVERY COMPONENT OPTIMIZE EVERY STEP

*Fully Integrated with Your ERP System*



# Two Lines. One Standard: Excellence.

## X-Line / C-Line

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Whether you're managing routine drying processes or specialized temperature-critical tasks, our cabinet solutions are designed to adapt to your exact requirements.

X-Line delivers dependable, **standard drying performance** with moderate temperature control — ideal for general-purpose use, with options for cooling down to 15°C and heating up to 60°C.

C-Line is built for **advanced applications** requiring more extreme conditions, offering configurations for **either deep cooling (down to 2°C)** or **high-temperature baking (up to 125°C)** — depending on your process.

Both series are fully **customizable and configurable**, allowing you to:

- Add **heating or cooling units** as needed
- Integrate **adjustable shelving and storage solutions**
- Choose from **multiple capacity options** to fit your space and workflow

Turn the page to discover which solution fits your application best.

**Your Process. Your  
Line. Your Choice.**



**XT-1250**



**CT-1250**

# X-LINE CABINET FEATURES

## Standard Features

- Built-in Indoor Humidity and Temperature Monitoring Sensor
- 7" Touchscreen Control Panel with 800×480 Pixel Resolution
- LAN Connectivity via Wi-Fi or Ethernet
- Remote Monitoring System (RMS)
- Integrated Datalogger (2 GB)
- Audible Door Alarm with Built-in Buzzer
- Dual Insulated Glass Doors
- Stainless Steel Rear Panels
- Electrostatic Painted Metal Sheet Chassis
- 4 or 5 Casters (2 Lockable) + 2 Adjustable Stabilization Legs
- Interior Lighting System (2-Color Light)
- RFID Access (125 kHz or 13.56 MHz)
- Honeycomb Cardboard Packaging with Pallet
- No Shelves Included (customizable)

## Additional Features

- Dryer Unit Configuration: None / 1 Dryer / 2 Dryers
- Password-Enabled Automatic Door Locks
- Outside Humidity and Temperature Sensor
- Stainless Steel Fixed or Sliding Shelves
- Heater Kit (45 °C / 60 °C)
- Thermal Insulation + Stainless Steel Panels
- Door Configurations: 2-Door, or 4-Door
- Cooling Unit (15 °C)
- Extraction Unit
- Humidifier Unit
- HEPA Filter
- Integrated Oxygen Sensor
- External Alarm Bar (Magnetic Base, 2-Color Light, Buzzer)
- PCM-01 (Power Consumption Monitoring Module)

# STANDARD VOLUMES

## XS 300-600-900

EXTERNAL DIMENSIONS (W x H x D)		
XS LINE CABINETS	XS-300	606 x 1097* x 751 mm
	XS-600	606 x 1958* x 751 mm
	XS-900	606 x 1958* x 1051 mm
INTERNAL DIMENSIONS (W x H x D)		
Non Insulated		
XS LINE CABINETS	XS-300	603 x 792 x 656 mm
	XS-600	603 x 1654 x 657 mm
	XS-900	603 x 1653 x 957 mm
NET VOLUME		
Non Insulated		
XS LINE CABINETS	XS-300	313 l
	XS-600	650 l
	XS-900	950 l
WEIGHT*		
XS LINE CABINETS	XS-300	90 kg
	XS-600	134 kg
	XS-900	160 kg
AVERAGE POWER CONSUMPTION*		
50W / Hour		

\* Depends on configuration



## XT-1250

EXTERNAL DIMENSIONS (W x H x D)	1200 x 1958* x 751 mm
INTERNAL DIMENSIONS (W x H x D)	Non Insulated 1197 x 1653 x 657 mm
NET VOLUME	Non Insulated 1300 l
WEIGHT*	270 kg
AVERAGE POWER CONSUMPTION*	50W / Hour

\*Depends on configuration



## XL-1800

EXTERNAL DIMENSIONS (W x H x D)	1200 x 1958* x 1051 mm
INTERNAL DIMENSIONS (W x H x D)	Non Insulated 1197 x 1653 x 957 mm
NET VOLUME	Non Insulated 1900 l
WEIGHT*	300 kg
AVERAGE POWER CONSUMPTION*	50W / Hour

\*Depends on configuration



# C-LINE CABINET FEATURES

## 2°C or 125°C

### Standard Features

- Built-in Humidity and Temperature Monitoring Sensor
- 7" Touch Screen Control Panel, 800\*480 Pixel Screen Resolution
- LAN Connectivity via Wi-Fi or Ethernet
- Remote Monitoring System (RMS)
- Integrated Datalogger
- No Shelves Included
- Audible Door Alarm Equipped with Buzzer
- Dual Insulated Glass Doors
- Stainless Steel Rear Panels
- 4 or 5 Casters (2 Lockable)
- 2 Adjustable Stabilization Legs
- Electrostatic Painted Metal Sheet Chassis
- Interior Lighting System (2-Color Light)
- RFID Access (125 kHz or 13,56 MHz)
- Honeycomb Cardboard Packaging with Pallet
- Thermal Insulation and Interior Stainless Steel (SS) Panels on All Sides

### Optional Features

- Dryer Unit (DHM-01) – Configuration Options:
  - No Dryer Unit / 1 Dryer Unit / 2 Dryer Units.
- N2 Auto-Flow Unit
- Password-Enabled Automatic Door Locks
- Outside Humidity and Temperature Sensor
- Stainless Steel Fixed Shelf or Sliding Shelf
- Heater Kit (125 °C)
- Gas-Cooled Cooling Unit (Down to 2 °C)
- Water-Cooled Cooling Unit (Chiller) \*\*
- Door Options: Single-Door, 2-Door, or 4-Door Configurations
- Extraction Unit
- Humidifier Unit (HUM-01)
- HEPA Filter
- Integrated Oxygen Sensor (OS-01)
- External Alarm Bar with Magnetic Base, 2-Color Light and Buzzer (EAL-01)

# STANDARD VOLUMES

## CS 300-600-900

EXTERNAL DIMENSIONS (W x H x D)		
C-LINE CABINETS	CS-300	706 x 1097* x 801 mm
	CS-600	706 x 1966* x 801 mm
	CS-900	706 x 1967* x 1101 mm
INTERNAL DIMENSIONS (W x H x D)		
Non Insulated		
C-LINE CABINETS	CS-300	641 x 712 x 581 mm
	CS-600	641 x 1582 x 581 mm
	CS-900	641 x 1582 x 881 mm
NET VOLUME		
Non Insulated		
C-LINE CABINETS	CS-300	265 l
	CS-600	588 l
	CS-900	893 l
WEIGHT*		
C-LINE CABINETS	CS-300	90 kg
	CS-600	134 kg
	CS-900	160 kg
AVERAGE POWER CONSUMPTION*		50W / Hour

\* Depends on configuration

## CT-1250

EXTERNAL DIMENSIONS (W x H x D)	1316 x 1958* x 801 mm
INTERNAL DIMENSIONS (W x H x D)	Non Insulated 1251x 1573x 565 mm
NET VOLUME	Non Insulated 1100 l
WEIGHT*	270 kg
AVERAGE POWER CONSUMPTION*	50W / Hour

\* Depends on configuration

## CL-1800

EXTERNAL DIMENSIONS (W x H x D)	1316 x 1958* x 1101 mm
INTERNAL DIMENSIONS (W x H x D)	Non Insulated 1251 x 1573 x 865 mm
NET VOLUME	Non Insulated 1700 l
WEIGHT*	300 kg
AVERAGE POWER CONSUMPTION*	50W / Hour

\* Depends on configuration



# A NEW ERA IN PRODUCTIVITY

## REVOLUTIONIZE STORAGE WITH PICK BY LIGHT TECHNOLOGY

### Maximize Efficiency | Eliminate Errors | Empower Your Workflow

Experience next level storage optimization with X-Smart Light a cutting edge solution designed to streamline your inventory operations using intuitive Pick by Light technology.

By illuminating the exact slot where each item is stored, it guides operators to the right pick, right away. No second guessing, no wasted motion just fast, flawless retrieval with visual cues that drive speed, accuracy, and efficiency.

A red LED instantly signals any error, enabling immediate correction and keeping your operations running smoothly with zero compromise on quality.

With X-Smart Light, you'll boost productivity, reduce operator errors, and take full control of your storage environment.



## SMART MATERIAL MANAGEMENT SYSTEMS

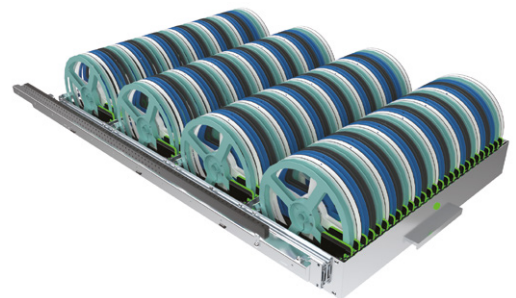
### Scalable, High Capacity, Tailored for Performance.

Maximize your storage efficiency with our high capacity, modular inventory solutions engineered to support demanding production environments. X-Smart Light cabinets support mixed-format storage and allow full customization of the internal layout according to the user’s inventory profile.

- Various reel diameters and widths.
- Tray shelves for matrix/tray components.
- Stick/tube holders for axial or long components.

### Reel Capacity for 7” Reels:

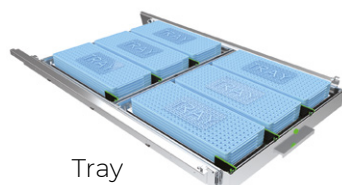
Cabinets	7” Reel Capacity (Shelf x Holder x Slot)
XS-300	3 x 3 x 27 = 243
XS-600	8 x 3 x 27 = 648
XS-900	8 x 4 x 27 = 864
XT-1250	16 x 3 x 27 = 1296
XL-1800	16 x 4 x 27 = 1728



Shelf: Maximum shelf count per cabinet  
 Holder: Reel holders per shelf (horizontal plane)  
 Slot: Individual reel positions within each holder  
 For customer specific reel dimensions or storage demands, our team is ready to deliver tailored configurations to fit your exact needs.  
 Capacities are calculated based on cabinet configurations without middle bar.



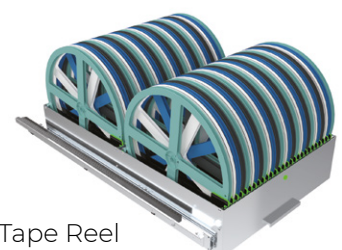
Tube/Stick



Tray



Jar



Tape Reel  
7" - 11" - 13" - 15"

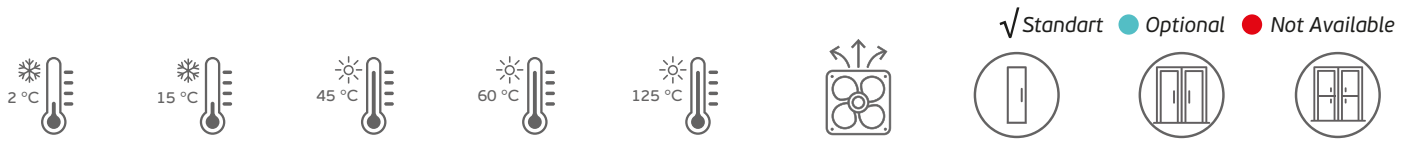
# FEATURES & STANDARDS



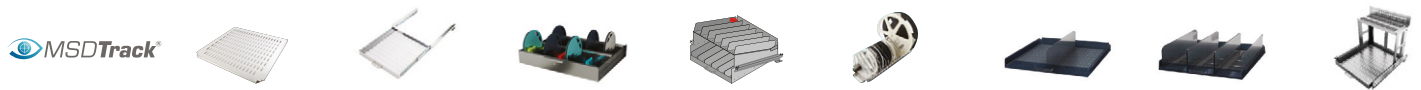
STANDARD & OPTIONAL FEATURES	Dryer Unit	Second Dryer Unit	Smart Nitrogen Unit	7" Touch Screen Control Panel With Software	Datalogger +RMS	Indoor Light	RFID Access	Automatic Door Locks
X Line Models								
XS-300	●	●	●	✓	✓	✓	✓	●
XS-600	●	●	●	✓	✓	✓	✓	●
XS-900	●	●	●	✓	✓	✓	✓	●
XT-1250	●	●	●	✓	✓	✓	✓	●
XL-1800	●	●	●	✓	✓	✓	✓	●
C Line Models								
CS-300	●	●	●	✓	✓	✓	✓	●
CS-600	●	●	●	✓	✓	✓	✓	●
CS-900	●	●	●	✓	✓	✓	✓	●
CT-1250	●	●	●	✓	✓	✓	✓	●
CL-1800	●	●	●	✓	✓	✓	✓	●



ACCESSORIES	Outside Humidity & Temperature Sensor	Oxygen Sensor	Humidifier Unit	External Alarm Bar	Hepa Filter	UV Light	Modbus Connectivity	Power Consumption Monitoring
X Line Models								
XS-300	●	●	●	●	●	●	●	●
XS-600	●	●	●	●	●	●	●	●
XS-900	●	●	●	●	●	●	●	●
XT-1250	●	●	●	●	●	●	●	●
XL-1800	●	●	●	●	●	●	●	●
C Line Models								
CS-300	●	●	●	●	●	●	●	●
CS-600	●	●	●	●	●	●	●	●
CS-900	●	●	●	●	●	●	●	●
CT-1250	●	●	●	●	●	●	●	●
CL-1800	●	●	●	●	●	●	●	●



2 °C Cooling Unit	15 °C Cooling Unit	45 °C Heating Unit	60 °C Heating Unit	125 °C** Heating Unit	Extraction Unit	Single Door	2 Doors	4 Doors
●	●	●	●	●	●	√	●	●
●	●	●	●	●	●	●	√	●
●	●	●	●	●	●	●	√	●
●	●	●	●	●	●	●	●	√
●	●	●	●	●	●	●	√	●
●	●	●	●	●	●	√	●	●
●	●	●	●*	●	●	√	●	●
●	●	●	●*	●	●	●	√	●
●	●	●	●*	●	●	●	√	●
●	●	●	●*	●	●	●	●	√
●	●	●	●*	●	●	●	√	●



MSD Track Software	SS Fixed Shelf	SS Sliding Shelf	X-Smart Light Shelves	Fifo Shelf	Reel Holder	I Divider	U Divider	Feeder Holder
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●***	●	●	●	●	●
●	●	●	●***	●	●	●	●	●
●	●	●	●***	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●

\* Only available with cooling option \*\* 125 °C is not applicable with 2 °C or 15 °C  
 \*\*\*Solder paste jar & cartridge shelves.

# REFERENCE CONDITIONS FOR DRYING SMD PACKAGES AND COMPONENTS

Body Thickness	MSL	25 °C	Drying at 1%Rh		Drying at 5%RH IPC J-STD-033D	
			40 °C	60 °C	40 °C	90 °C
≤0,5 mm	2	Not Required	Not Required	Not Required	Not Required	Not Required
	2a	9 Hours	3 Hours	1 Hours	12 Hours	2 Hours
	3	18 Hours	6 Hours	1 Hours	22 Hours	3 Hours
	4	18 Hours	6 Hours	1 Hours	22 Hours	3 Hours
	5	18 Hours	6 Hours	1 Hours	23 Hours	3 Hours
	5a	21 Hours	7 Hours	2 Hours	26 Hours	4 Hours
>0,5 mm ≤0,8 mm	2	Not Required	Not Required	Not Required	Not Required	Not Required
	2a	3 Days	1 Days	6 Hours	4 Days	15 Hours
	3	3 Days	1 Days	6 Hours	4 Days	15 Hours
	4	3 Days	1 Days	6 Hours	4 Days	16 Hours
	5	3 Days	1 Days	6 Hours	4 Days	16 Hours
	5a	3 Days	1 Days	6 Hours	4 Days	16 Hours
>0,8 mm ≤1,4 mm	2	Not Required	Not Required	Not Required	Not Required	Not Required
	2a	6 Days	2 Days	12 Hours	8 Days	25 Hours
	3	6 Days	2 Days	12 Hours	8 Days	25 Hours
	4	9 Days	3 Days	15 Hours	10 Days	27 Hours
	5	9 Days	3 Days	17 Hours	11 Days	28 Hours
	5a	9 Days	3 Days	18 Hours	12 Days	30 Hours
>1,4 mm ≤2,0 mm	2	18 Days	6 Days	38 Hours	25 Days	63 Hours
	2a	21 Days	7 Days	2 Days	29 Days	3 Days
	3	27 Days	9 Days	2 Days	37 Days	4 Days
	4	36 Days	12 Days	3 Days	47 Days	5 Days
	5	42 Days	14 Days	4 Days	57 Days	6 Days
	5a	60 Days	20 Days	5 Days	79 Days	8 Days
>2,0 mm ≤4,5 mm	2	60 Days	20 Days	5 Days	79 Days	10 Days
	2a	60 Days	20 Days	5 Days	79 Days	10 Days
	3	60 Days	20 Days	5 Days	79 Days	10 Days
	4	60 Days	20 Days	5 Days	79 Days	10 Days
	5	60 Days	20 Days	5 Days	79 Days	10 Days
	5a	60 Days	20 Days	5 Days	79 Days	10 Days
Exception for BGA package > 17 mm x 17 mm or any stacked die package	2 - 5a	Not applicable	Not applicable	64 Days	Not applicable	Not applicable
MSL 6			Mandatory bake before use. After bake, must be reflowed within the time limit specified on the label.			

The information given above is only for general guide and advise. There are several parameters like moisture levels, moisture gains of components, ambient conditions, package types etc involved in moisture absorption and drying.

# CUSTOM CABINETS FOR PRECISION STORAGE AND CONTROL

Our cabinets can be fully customised to meet specific operational requirements. This includes adjustable shelving layouts tailored to your components and workflow, as well as humidity and temperature control, optional O<sub>2</sub> monitoring, and nitrogen injection capabilities. We also offer bespoke design solutions to meet unique customer needs, such as fully stainless steel cabinets or side-access models. Each unit is designed to optimise storage efficiency and operational convenience.



**CT-1250**

**\* Custom stainless steel cabinet.**



**XT-1250**

**\* Custom feeder storage cabinet.  
Compatible with almost all feeders.**

# REFERENCES



and many more...

# OFFICES

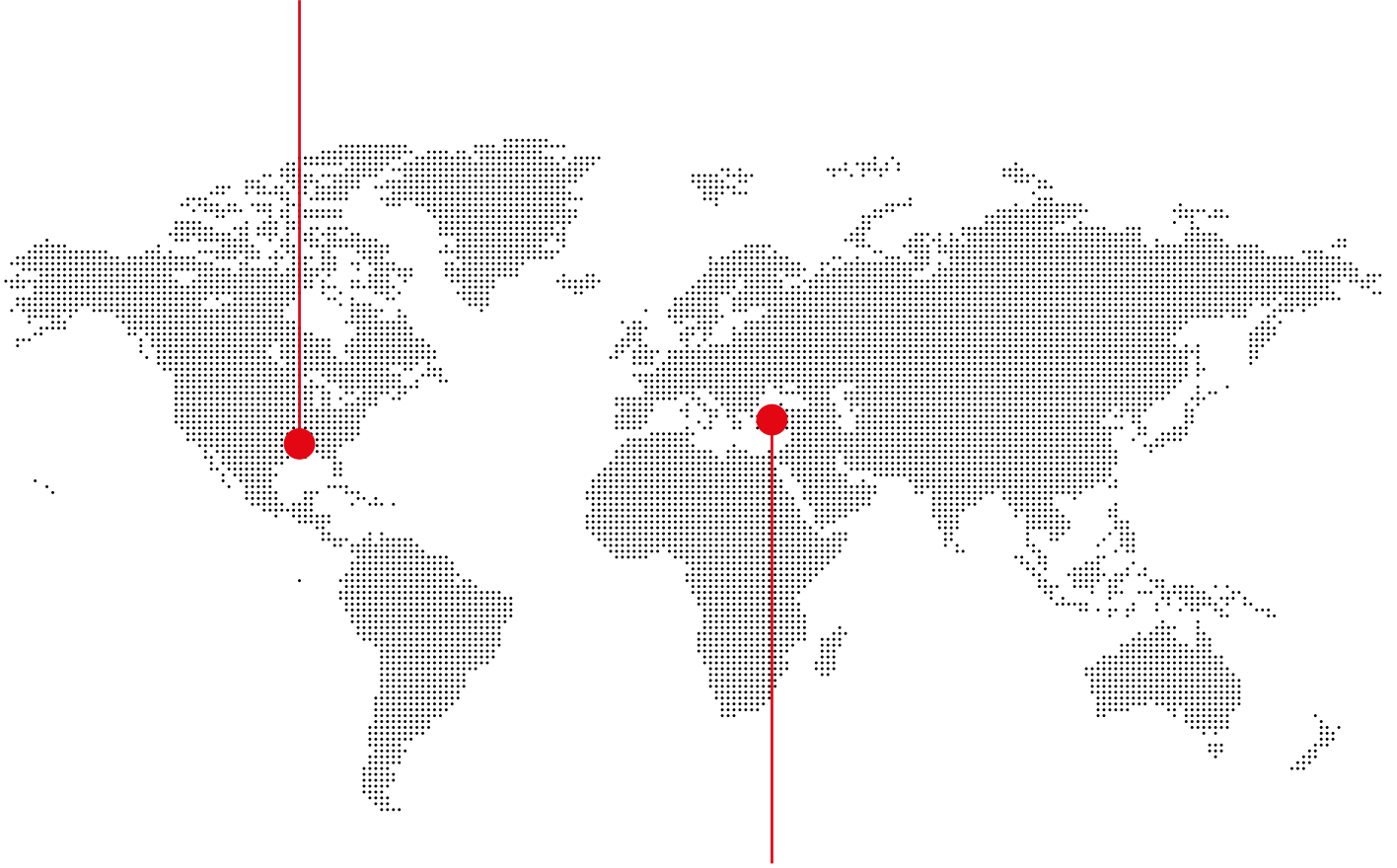
## **EMT Electronics INC.**

### **AMERICA**

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**E-mail:** info@x-tremeseries.com



## **EMT Elektronik Mühendislik A.Ş.**

### **EMEA ve APAC**

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Yenimahalle, Ankara, TÜRKİYE

**Phone:** +90 (312) 472 206

**E-mail:** info@x-tremeseries.com



Today, EMT Electronics solutions are trusted in more than 60 countries, empowering organizations worldwide with unmatched precision, reliability, and performance. From electronics manufacturing to defense and medical technologies, our high-performance dehumidification and storage systems safeguard processes where failure is not an option.





EMT Electronics® is a specialized technology group with over three decades of experience driving innovation across critical industries. With proven expertise in design, engineering, manufacturing, and R&D, EMT Electronics delivers state-of-the-art solutions in forensic laboratory technologies, ballistic testing systems, and industrial dry storage cabinets.

Manufactured by



Our products are manufactured in compliance with **IPC/JEDEC-J-STD-033D**, **CE**, and **RoHS** standards.