



TPS
Thermal Product Solutions

»Blue M »Gruenberg »Lindberg/MPH »Tenney

Battery Testing Solutions

- Environmental Chambers
- Walk In Rooms
- Industrial Ovens

PARTNERS IN SAFETY

We Help Create Your Custom Safety Solution

TPS Thermal Product Solutions uses the most up-to-date technology and engineering to build equipment to test a wide variety of batteries.

- Proprietary Risk Analysis
- Customization for your Application
- NFPA Compliance



MEETS INDUSTRY TESTING STANDARDS SAFELY



- IEC 62660-2 for abuse testing of automotive batteries
- SAE J2464 for automotive rechargeable batteries (RESS systems)
- IEC 60086-4 Safety of lithium batteries
- UL 1642 for lithium ion batteries
- UN/DOT 38.3 for testing lithium ion batteries
- IEC 61960 for portable lithium cells and batteries
- IEC 62133 for portable battery cells
- UL 2054 for consumer and commercial batteries
- IEEE 1625 Laptop Rechargeable batteries
- IEEE 1725 Phone rechargeable batteries



Safely test to all major standards including IEC, SAE, UL, UN/DOT, & IEEE
(Safety options available for all Eucar Listings)

BATTERY TESTING SOLUTIONS

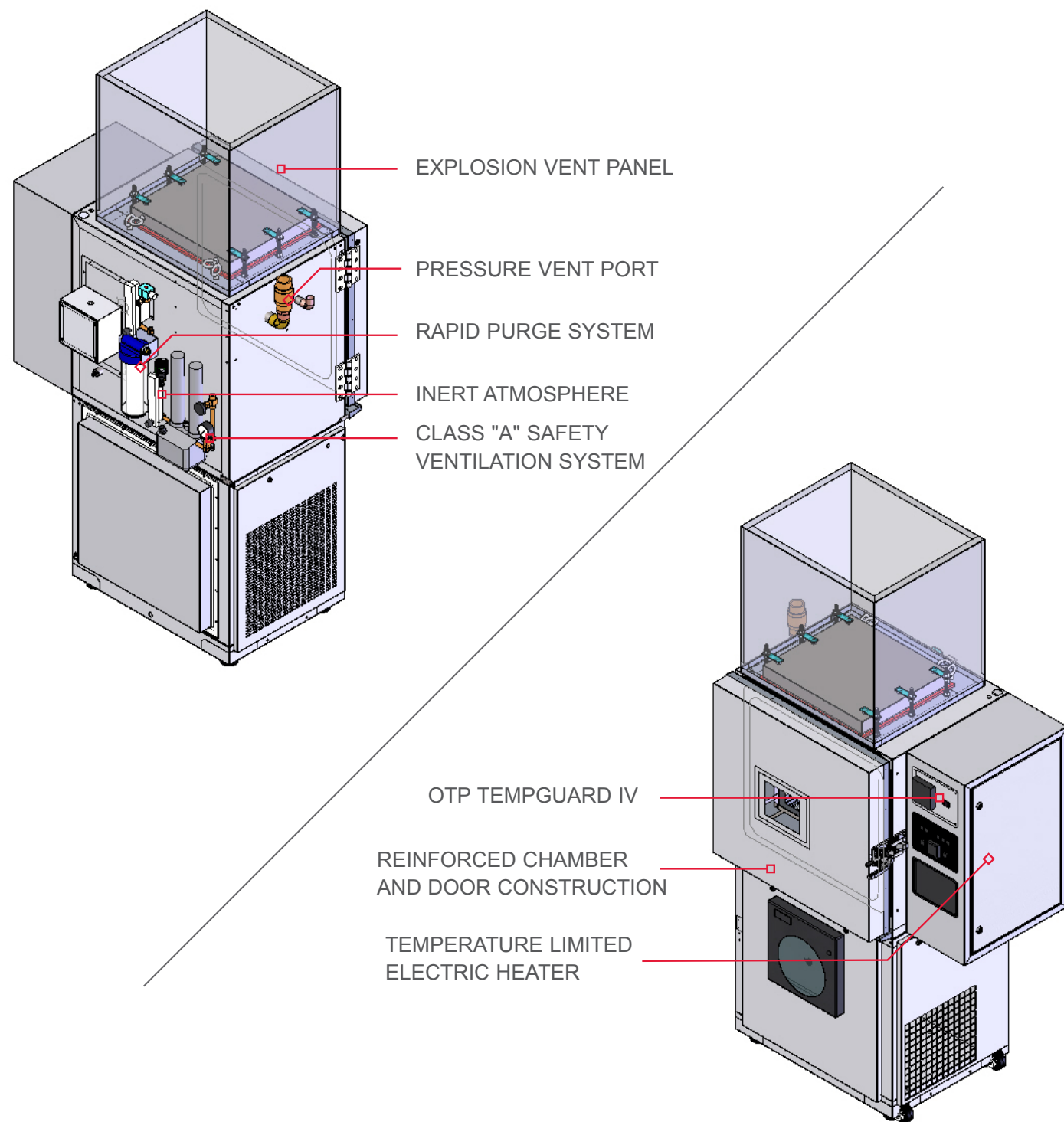
TPS has the environmental testing products and capabilities for applications including automotive, mobile devices, computers, telecommunications, defense and alternative energy.

What do the telecommunications, automotive, computer, defense, and alternative energy markets have in common? They all need a safe and reliable way to test batteries. And with more

electronic devices being used and electric hybrid vehicles hitting the road every day, the ability to test lithium ion batteries has never been more in demand.



BATTERY CHAMBER



Baseline Capabilities Chambers and Walk In Rooms

- Temperatures Range from -73°C to 200°C (-100°F to 392°F)
- Humidity Range from 10% to 98%

Ovens/Furnaces

- Temperatures Range to 1200°C (2200°F)

Wide Variety of
Internal Dimensions to
Accommodate your Testing
Needs

Easy to Use Touchscreen
Control System

NFPA Compliant Systems
Tailored to your Specific
Requirements



SAFETY OPTIONS

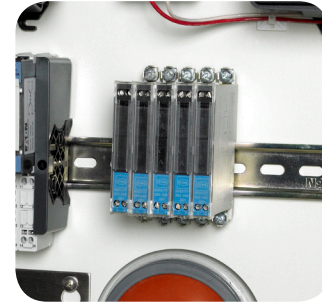
TPS offers a wide range of safety features and options to allow you to meet your testing needs while complying to NFPA safety requirements.

TPS Engineers are available to partner with you to create the chamber you need—size, features, safety, atmospheres, controllers, exhausts and more.

Put us to the test & test with the best.



Chamber Pressure Alarm (Standard)



Intrinsic Safety Barriers



NFPA Class A Ventilation System



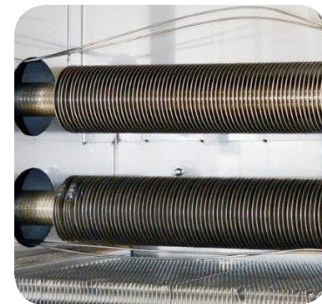
Inert Atmosphere (NFPA Compliant)



Solvent Monitor



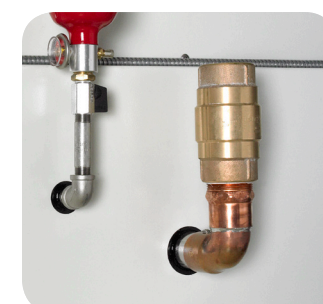
Gas Analyzers (H₂, O₂, CO₂, CO)



Temperature Limited Electric Heaters



Rapid Purge System



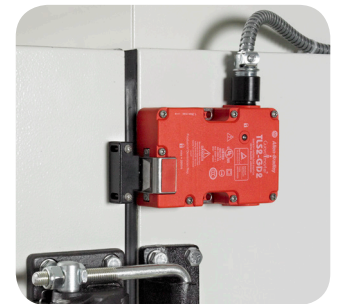
Pressure Relief Ports (Standard)



NFPA Compliant Explosion Venting (Standard)



Remote Shutdown



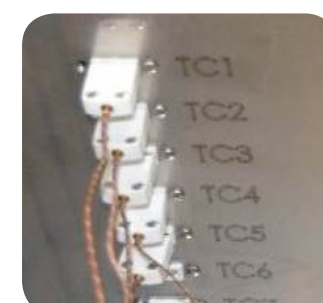
Automatic Door Locks



Emergency Stop Control



Heater Surface Temperature Limiters



Product Monitoring Thermocouples



Rapid Cryogenic Cooling



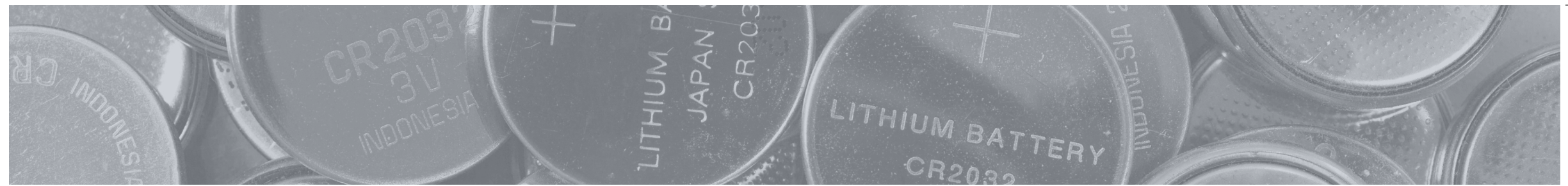
Fire Suppression (Water, Halon, CO₂, LN₂)



Alarms (Audible, Visual, Output Contacts)



Redundant Process Temperature High Limit (Standard)



ABOUT TPS

Thermal Product Solutions (TPS) designs and manufactures industrial and laboratory ovens and furnaces, and environmental temperature cycling and stability test chambers. Product brands include Blue M, Gruenberg, LindbergMPH, and Tenney. Company headquarters are located in White Deer, Pennsylvania and LindbergMPH is located in Riverside, Michigan.

www.thermalproductsolutions.com



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Specifications and Product Information are subject to change without notice.