

# SUPERFREEZER

— ultra-low temperatures for critical cargo —



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## EXTREME COOLING CAPACITY – AT YOUR FINGERTIPS

Thermo King SuperFreezer refrigerated container units are designed to create and maintain ultra-low temperatures as low as  $-70^{\circ}\text{C}$  to protect the most sensitive and valuable cargoes. Equally effective in 10' or 20' ISO containers, the SuperFreezer solution can be used for transport over land or sea or as storage.

## THE TECHNOLOGY

The Thermo King SuperFreezer achieves extreme low temperatures using “Cascade” technology. An advanced controller managing two separate refrigeration circuits with two different refrigerants work together to safely protect your valuable products:

- ① **System 1:** R-134a conditions the refrigerant in system 2
- ② **System 2:** R-23 freezes the cargo via the evaporator coil.



## CERTIFICATION

Our SuperFreezer solutions are fully certified to the most stringent international standards, so you can rest assured that your operation will meet all regulatory requirements.

- Pharma GDP
- ISO1496-2
- CE
- AHRI
- TIR (International Customs Regulations for Containers)
- ATO (former Sprenger Institute)
- USDA
- American Bureau of Shipping, Lloyds and Bureau Veritas

## APPLICATIONS

Extreme low temperatures cause microbial decomposition to cease completely. Our SuperFreezer solution can be applied successfully to a wide range of products ensuring they reach their destination in perfect condition even after extended periods.

- Vaccines including types known for COVID-19 inoculation
- Active pharmaceutical ingredients (API)
- Biological material such as samples
- Blood plasma / Biolife
- Food ingredients such as yogurt cultures
- Chemical enzymes such as in detergent/washing powder
- 3D printing components
- High tech semiconductors components
- R&D material and validation testing (often in automotive, aviation, windpower, off-shore and oil-and-gas parts)
- Processed seafood or Freshly caught fish: tuna, crab
- PCM (Phase Changing Material) storage and preparation
- Pre-treated composite materials



## SUPERFREEZER

**$-70^{\circ}\text{C}$  to  $-10^{\circ}\text{C}$**   
Set-point range to suit a wide range of applications

**$\pm 1^{\circ}\text{C}$**   
MP controller for extremely precise temperature management to within  $\pm 1^{\circ}\text{C}$

**Genset option**  
Over-the-road or backup power provided by an optional Thermo King SG-Series generator set

**Real-time data**  
Factory fitted telematics for remote visibility of critical data in real-time.





## THERMO KING

Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport temperature control solutions. Thermo King has been providing transport temperature control solutions for a variety of applications, including trailers, truck bodies, buses, air, shipboard containers and railway cars since 1938.

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