

# Myths and Facts about the Tundra® Refrigeration System

- Myth:** The compressor may have high discharge temperatures and will be damaged.  
**Fact:** The discharge temperature is controlled at approximately 200°F. Copeland, the compressor manufacturer, approves up to 225°F for reliable operation.
- Myth:** The compressor is not designed for R-410A.  
**Fact:** This is true; it is designed for R-404A. However, during the prototype phase CSZ worked with Copeland to run simulated life tests on two different size compressors. They were disassembled after the test and confirmed no unusual wear was found.
- Myth:** The compressor will not be covered by Copeland's warranty.  
**Fact:** After evaluation of the prototype compressors, Copeland granted CSZ approval for this application, which includes their standard warranty.
- Myth:** The system will run at high pressures which will damage the compressor and other components.  
**Fact:** Part of the design/patent limits use of the Tundra to indoor applications for air cooled and water cooled units only. With these specifications, the discharge pressures will be within the normal operating pressures of a typical R-404A system.
- Myth:** To achieve -40°C or -45°C the compressor is running at undesirable conditions.  
**Fact:** This system is designed to stay inside the typical operating pressures of R-404A. To run the temperatures listed above, the system will operate at the same pressures as an R-404A system running at -34°C and -40°C, respectively.
- Myth:** Compressor will wear more quickly running at these "extremes" and eventually will not be able to achieve -40°C or -45°C.  
**Fact:** There is no evidence of this happening. In fact, CSZ has testimonials from customers with units that are several years old still running -40°C with no issues.
- Myth:** This is unproven technology and there are not many units in the field.  
**Fact:** CSZ has sold over 850 systems in all types of chambers, including reach-in chambers, Walk-ins, Altitude, Thermal Shock and Liquid Conditioners. The Tundra has been on the market for over 10 years.
- Myth:** Little power is saved when operating a Tundra vs. cascade.  
**Fact:** Up to 54% of power consumption can be saved with the Tundra system.