## DTn ${ }^{\circ}$

## TEMPERATURE CORRECTION FACTORS

## What is Thermal Expansion?

Like all liquids, when refined fuels cool, they condense and occupy less space, and conversely, when fuels warm, they expand and occupy more space. The ultimate value of a fuel is based on the power it provides to an engine, which is driven by the fuel's mass. Think of mass as the number of molecules in a given amount of fuel regardless of the amount of space that fuel takes up. One gallon of gasoline at $40^{\circ} \mathrm{F}$ has $1.4 \%$ greater mass, $1.4 \%$ more molecules and $1.4 \%$ more ability to power an engine than one gallon of gasoline at $60^{\circ} \mathrm{F}$.

Gross volume fluctuates due to temperature changes


The NET amount of fuel is what is available in the terminal

The "GROSS" volume of fuel is what leaves the rack in a truck

The NET amount of fuel is what is actually received by a customer

## Best practices for using TCI



