

TSDC

Adiabatic cooling



Key benefits

- Empowers transcritical CO₂ applications in warmer climates
- Minimum system energy
- Low installation cost

TSDC, TrilliumSeries characteristics

Counter flow, adiabatic pre-cooling, axial fan, induced draft

Typical applications

- supermarket refrigeration systems



For transcritical CO₂ applications in warmer climates

- No regulatory liability or restrictions.
- No expensive future retrofits due to refrigerant phase out.
- Reduced system carbon footprint with global warming potential of “1” and ozone depleting potential of “0”.
- Low installed cost due to lower refrigerant cost and no refrigerant tax.

Energy efficient, economical transcritical CO₂ systems with air cooled gas coolers are limited to colder climates due to the limitations of the dry bulb ambient temperature.

By using the TrilliumSeries condenser's **unique adiabatic design**, it is possible to reduce the air temperature and hence improve the system efficiency. **Transcritical CO₂ systems** can now be **applied to southern regions** with higher ambient temperatures and additional **energy can be saved in cooler climates**.

Minimum system energy

- Up to 37% annual system energy reduction by operating at lower condensing temperatures.
- Direct drive variable speed EC motors minimize fan energy required.

Low installation cost

- Reduces overall system size and pressures by operating at lower CO₂ temperatures.
- Shrunk size of the rack and reduced weight.
- Lower refrigerant charge than comparable air cooled condensers.

Minimal maintenance

- No water treatment required.
- Requires the same time to maintain as an air cooled condenser.

Long term reliability

- Industrial grade Type 304 Stainless Steel and an exclusive Thermosetting Hybrid Polymer coating on all structural panels.

Low sound

- Lower airflows due to the unique adiabatic design result in low sound levels.
- Whisper Quiet fans are standard.



Interested in the TrilliumSeries condenser for your commercial refrigeration project? Contact your local [BAC representative](#) for more information.

Downloads

- [TSDC TrilliumSeries](#)
- [TrilliumSeries CO2 condenser](#)