



Thermal Energy Storage Tanks

for chilled water-cooling systems

Description

RECO Commercial Systems' thermal energy storage tanks are used for storing thermal energy in chilled water district cooling systems. TES tanks take advantage of off-peak energy rates by cooling water during these hours (usually overnight) and using it during high-rate hours (usually daytime). A thermal energy storage tank can reduce operational costs by storing thermal energy until it can be used later. They can also add resiliency to traditional heating and cooling systems in the event of power failure.

RECO can build thermal energy storage tanks for storage capacity up to 50,000 gallons. Our thermal energy storage tanks include custom internal diffusers which are engineered to meet specific thermal energy requirements.

Installed in a system, the thermal energy storage tank contributes to facility energy management and helps provide for a more even response to system demand.

Design

RECO Commercial Systems' thermal energy storage tanks can be engineered to meet various heating or cooling requirements. Our engineering team employs computational fluid dynamic (CFD) analysis to simulate fluid and heat flow to optimize the physical design of the vessel (including internal baffles, diffusers and manifolds) to ensure fluid stratification will meet system requirements.

Options

- Available in vertical and horizontal configurations.
- Internal slotted baffles or piping manifold configurations.
- External ladders and platforms.
- Custom linings and exterior finishes.
- Insulation options up to R21.
- Stainless steel or galvanized jacketing.
- Custom connections, manways and supports (including full seismic review).

Applications

- Government installations
- University Campuses
- Sports Venues
- Hotels
- Industrial Facilities
- Campuses
- Hospitals
- District Energy Systems

