



endless

heating innovation

Replacing two 3,500,000-BTU boilers and two 2,750,000-BTU water-to-water heat exchangers for an 18-unit Rinnai Tankless Rack System led this jail to save over \$550 per month, even with a 50% population increase.

Montrose County Jail & Sheriff's Office, Montrose, CO—Any establishment with a shower, kitchen or laundry has a need for consistent, reliable hot water. However, an endless supply of hot water is perhaps most essential in locations that house a large number of individuals. While tankless technology is growing in popularity among hotels and university residence halls, it is also a smart choice for more niche commercial projects, like jails and prisons, which require a high volume of hot water for cooking, dishwashing, laundry and hygiene.

A NEED FOR CONFIDENCE AND REDUNDANCY

With an average of 155 inmates in residence, the Montrose County Jail cannot be without hot water for any significant length of time, or it may have to relocate inmates to other facilities. When its previous water heating system started to experience wide temperature swings with inconsistent water temperatures and frequent failures that were expensive to repair, the maintenance staff recognized they needed to make a change.

Montrose County Facilities Master Plumber & System Installer Daniel Hutson oversaw the replacement of the water heating system, and during the planning and design phase of the project, the staff reviewed several different system options. The jail needed a solution that would offer redundancy to eliminate downtime, while supplying enough hot water to power the facility's 119 sinks, 37 showers, laundry facilities and commercial kitchen. Additional influential factors included cost, equipment footprint, efficiency, precise temperature control, noise levels and ease of future expansion.





TRS
Tankless
Rack
System

THE RINNAI ADVANTAGE FOR TANKLESS RACK SYSTEMS

- Endless supply of hot water delivered up to 9.8 GPM per unit
- Built-in redundancy - never experience downtime during peak business hours
- 96% thermal efficiency, Commercial ENERGY STAR® certified
- Ability to service without system shutdowns
- Digital temperature displays provide error codes and other diagnostics for easy maintenance
- Save money - installation, maintenance and operational cost savings
- Save space - no tanks needed
- Green - lower CO₂ emissions
- Indoor/outdoor/wall/floor-mount installations
- Multiple venting options (concentric or dual-pipe PVC/CPVC, PP)
- Available factory-direct preventive maintenance

“Since switching to Rinnai we have increased efficiency, redundancy and reliability. **Goodbye are the days of losing hot water.** Thanks Rinnai!”

— DANIEL HUTSON, MONTROSE COUNTY FACILITIES MASTER PLUMBER & SYSTEM INSTALLER

During the review process, Hutson and his team evaluated several potential solutions and determined that Rinnai’s Tankless Rack System featuring 18 tankless units would best meet the facility’s needs. After careful deliberation, there was a common consensus that the Rinnai Tankless Rack System offered an unmatched redundancy factor, allowing for uninterrupted hot water and the lowest chance of any system downtime.

While Hutson and his team believed Rinnai excelled in virtually all areas of consideration, the only aspect that gave them pause was the initial cost of the system. However, once the long-term repair and replacement costs were estimated and included, the initial higher cost was offset significantly. Plus, the added energy savings from the system made any cost difference almost negligible.

THE VALUE-ADDING RESULTS

After installing the Rinnai Tankless Rack System, the Montrose County Jail saw an average savings of over \$550 per month on its gas bill compared to the previous year. Hutson believes the total savings actually may be even higher because the facility is achieving this level of savings while housing 50 percent more inmates than in the past.

Furthermore, the redundancy of having multiple units has simplified the maintenance process. Following the installation of the new system, the staff is now able to isolate the units and service them without interrupting the hot water supply. Other improvements include reduced noise, consistent water temperatures, greater overall safety and the elimination of annual state boiler inspections.

For more information on commercial water heating solutions, maintenance services and a free sizing consultation by Rinnai Applications Engineers, call 866-383-0707 or visit rinnai.us/commercial.

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