



endless

care and comfort

The St. Lawrence Health System is based in Potsdam, NY. Established in 2013, the health system is the largest employer in St. Lawrence County with just over 1,400 employees and operates two hospitals and several extension outpatient facilities.

PROBLEM RECOGNITION

Aware of the many benefits of tankless technology previously installed at the Canton, NY outpatient facility, Andy Leonard, President of ENI Mechanical, knew that tankless would meet greater hot water demands at a larger inpatient facility. “At Gouverneur Hospital they had just built an additional wing and continued to supply heat and hot water to it with their existing hydronic and domestic water system.” This system was comprised of a 5.4M Btu boiler that fed a 6,000-gallon storage tank and an older, inefficient 1.7M Btu back up boiler. Due to the additional workload, the boiler system was unable to keep up and the hospital was experiencing situations in which the water would not keep up to the required temperature setting. “The entire set-up had become increasingly unreliable,” said Andy. “The hospital maintenance staff was having to work continually on the system to ensure that hot water was restored and at least one of the two boilers was operational.”

EFFICIENCY GAINS

Howland Pump and Supply was brought in to show the hospital various options available if they moved to a separate modular boiler system for their hydronic heating needs in the winter and a tankless system to supply their domestic hot water year-round. After deciding this was the best option, piping schematics for the domestic hot water system were produced by John Clark with Brooks

Washburn Architect, out of Potsdam NY. “Going from four recirculation zones and pumps to one while eliminating the need for storage reduced an unbelievable amount of inefficiency and operating cost — Plus the hospital was making efficiency improvements moving from 80% efficient boilers to 97% efficiency with Rinnai tankless,” said John.

EVALUATION OF OPTIONS

Mike Bajgot and Corey Nattinger of Rinnai walked the hospital building in mid-December 2018 to do a fixture count and size the job. It was determined that four (4) Rinnai TRS04CUiN Freestanding Tankless Rack Systems with a total of 16 engines supplying 3.184M Btu was required and would still provide enough capacity for future growth. Once the quote was approved, a purchase order was cut in February and installation began in March 2019. The hospital expects close to \$18K a year in energy, maintenance and repair savings and have the added benefit of increased redundancy and remote monitoring. “Using the Rinnai Control-R™ Mobile App, the maintenance staff can control and monitor the entire hot water system remotely. With the redundancy of having 16 operable units, they are not having to respond to emergency ‘no hot water’ situations like they were before,” said Corey Nattinger, Commercial Business Manager with Rinnai.



BEFORE

Domestic/Hydronic Steam Boiler



AFTER

Rinnai TRS04 Tankless Rack System

PURCHASE DECISION

Kyle Besaw, with Howland Pump and Supply appreciates how everything came together. “We ended up selecting Polypropylene common venting that we sourced through Rinnai because of the ease of installation plus it priced on par with PVC,” said Kyle. “We were told the rack systems needed to arrive in 3-4 weeks and Rinnai shipped it complete within 4 days of receipt of order. Their team has been flawless every step of the way.”



BEFORE

Decommissioned 6,000 gallon holding tank



AFTER

Polypropylene 6"-Common Vent supplied by Rinnai

“By decommissioning the storage tank, the hospital eliminated associated stand-by loss, Legionella concerns and maintenance costs to regularly blowdown the tank and boilers.”

— JOHN CLARK WITH BROOKS WASHBURN ARCHITECT
POTSDAM, NY

THE RINNAI ADVANTAGES FOR TANKLESS RACK SYSTEMS

Built-in Redundancy

- Fully pre-assembled and ready to connect rack systems
- On-demand, endless hot water
- Immediate delivery to dishwasher/ hand sinks
- No standby loss



TRS04CU

\$18K



ENERGY, MAINTENANCE AND
REPAIR SAVINGS



16

RINNAI TANKLESS ENGINES
4 TRS04CUIN



3.18M

BTU



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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