

PROJECT SPOTLIGHT



Industry:
Healthcare



Location:
Cherry Hill, NJ



Equipment:

- (2) Cleaver-Brooks CFC-E 2,500 MBH Condensing Boilers
- (2) Van-Packer Exhaust Stack
- (1) Thrush Aar-O-Vent Air and Dirt Separator



Project:
Hydronic Boiler System Upgrade



Delval Equipment supplied two high-efficiency Cleaver-Brooks CFC-E condensing boilers for a healthcare facility’s hydronic system upgrade in Cherry Hill, NJ, replacing existing non-condensing cast iron boilers. Our team assisted with system sizing, equipment selection, and provided boiler startup and commissioning.

The upgraded system provides reliable and efficient heating for chiller reheat and residential heating, helping the facility improve energy performance while maintaining dependable operation.

HIGH-EFFICIENCY CONDENSING BOILERS

The Cleaver-Brooks CFC-E condensing boilers were selected for their proven efficiency, reliability, and design flexibility.



Up to 92% efficiency
with return temperatures around 120°F



10:1 fully modulating turndown
Closely matches demand to reduce boiler cycling and burner wear



Duplex stainless steel firetubes
Resists flue gas condensate corrosion and stress cracking



High water volume & low pressure drop
50 gallons of water per 1,000 MBH; supports variable flow and reduces pumping energy



Integrated boiler controls
Lead-lag sequencing and automatic isolation valves support coordinated, efficient operation



PRIMARY VARIABLE SYSTEM DESIGN

The system is configured as a primary variable system with one set of system pumps and all equipment connected to a single loop. This design:

- ✓ Eliminates the need for dedicated boiler pumps
- ✓ Reduces installation materials and time
- ✓ Offers the best efficiency for a hydronic system
- ✓ Takes advantage of the CFC-E’s high water volume design

WARRANTY COVERAGE

- Lifetime thermal shock
- 15-yr fireside corrosion
- 5-yr burner
- 20-yr condensate pan
- 2-yr parts coverage

AIR AND DIRT SEPARATOR

A Thrush Aar-O-Vent air and dirt separator was installed to combine air and dirt removal into one compact unit, providing the most effective and straightforward solution for maintaining clean system water and long-term reliability.



EXHAUST STACK SYSTEM

Two Van-Packer double wall boiler stacks (Model CM, 10”) were quoted and designed to provide the best draft possible for the installation.

- 10” diameter to optimize draft
- Inner liner: VP1738 corrosion resistant stainless steel
- Outer wall: 304 stainless steel
- 1” air gap



This project highlights how thoughtful system design, high-efficiency equipment, and the right components work together to deliver a reliable and efficient hydronic heating solution for a critical healthcare environment.

A special shout-out to M Davis & Sons for a great installation! Thank you for your attention to detail and quality workmanship. mdavisinc.com

