

# Case in Point



## High-Efficiency CREST® Boilers Take Flight at High-Altitude Army Aviation Training Site



The High-Altitude Army Aviation Training Site (HAATS) is a state-of-the-art facility operated by the Colorado National Guard that trains army and ally helicopter pilots on how to operate aircraft in a variety of difficult conditions such as high-altitude and mountainous terrains. Located outside of Vail in Gypsum, Colorado, the new facility was constructed in fall 2012 to replace an outdated training site and allow for more efficient and effective operations.



In addition to improved efficiencies that led to doubling the training site's student capacity, the facility is also designed for environmental efficiency and achieved a LEED Silver designation by the U.S. Green Building Council.

The unique complex is comprised of administration offices, classrooms, a flight operations area with a 50-foot maintenance hangar, allied maintenance workshops and lodging rooms. While the entire facility is

designed for efficient operation, the mechanical systems played a significant role in reaching LEED Silver status.



Mechanical contractor Lance Daniel, owner of LD Mechanical, reviewed the initial design proposed by Jacobs Engineering, which was awarded the architectural and engineering design contract for HAATS, and made some modifications to ensure optimal performance and efficiency. One of Daniel's major updates to the design involved selecting Lochinvar® boilers, water heaters and storage tanks, which he worked with Shamrock Sales to specify.

"I've installed nothing but Lochinvar boilers since 2008, and I knew they would be the best choice for this job given the high expectations for efficiency and the high demands of the Colorado climate", said Daniel.

### PROJECT:

HIGH-ALTITUDE ARMY AVIATION TRAINING SITE

LOCATION: GYPSUM, CO

### LOCHINVAR PRODUCTS INSTALLED:

- 6 – CREST BOILERS (FBN2500)
- 2 – POWER FIN WATER HEATERS (1) PFN1302 AND (1) PFN502
- 2 – LOCK-TEMP STORAGE TANKS

### DESIGN ENGINEER:

JACOBS ENGINEERING, PASADENA, CA

### MECHANICAL CONTRACTOR:

LD MECHANICAL, MONTROSE, CO

### MANUFACTURERS' REPRESENTATIVE:

SHAMROCK SALES  
DENVER, CO





*Six Crest Boilers Installed in Main Heating Plant*

In the hangar and areas requiring a snow-and-ice melting (SIM) system, radiant heating and cooling technology was utilized. The SIM system is set up for four different zones with snow and ice detection in each zone that allows for automatic operation when conditions call for melting. A total of six CREST® Boilers, each of which delivers inputs up to 2.5 million Btu/hr, were installed in the main heating plant for the radiant heating and SIM systems. The CREST Boilers are installed side-by-side with zero clearance to maximize the space in the mechanical room.

In addition, a ground-mounted solar-evacuated tube system heats the domestic water, reducing demand for the primary gas-fired domestic hot water system. Two Power-Fin® Water Heaters, one unit with input of 1.3 million Btu/hr and a second with input up to 500,000 Btu/hr, were installed for the domestic water back-up system, along with two Lock-Temp® Storage Tanks.



*Two Power-Fin® Water Heaters Installed for Domestic Water Back-Up System, Along with Two Lock-Temp® Storage Tanks*

Greg Gibbs of Shamrock Sales notes that, “The extraordinary attention to detail on the part of Lance Daniel, along with the flexibility and incredible performance of the Lochinvar equipment, made for a smooth installation, successful startup and efficient operation that continues to satisfy the team at HAATS.”

For more information, visit [www.Lochinvar.com](http://www.Lochinvar.com).



## ABOUT LOCHINVAR

Lochinvar, LLC is a leading manufacturer of high-efficiency water heaters, boilers, pool heaters and storage tanks. Based in Lebanon, TN, with facilities in Detroit, Orlando, Pompano Beach, Dallas, Phoenix and Chicago, Lochinvar stocks all products in all locations.