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Fort Lewis College

INSULPEX piping meets tight installation schedule during update to campus centralized boiler system. na.rehau.com/projects



College achieves quick turn-around in centralized hot water system upgrade project with INSULPEX piping

To reduce energy costs, Fort Lewis College in Durango, Colorado sought to centralize boiler hot water production for baseboard heating in four of its residence halls, which are among the campus' most energy-intensive buildings.

"Instead of operating 12 boilers in four locations on campus, we wanted to centralize the operation to just three high-efficiency boilers in one location," said Rob Lee, the school's mechanical systems maintenance department supervisor. "This would mean less mechanical operation and equipment, and a significant resulting energy savings. In order to do this however, we needed a way to distribute hot water back to the three other residence halls while ensuring no energy was lost along the way."

The college identified design, build, operations and maintenance (DBOM) firm McKinstry to develop a solution that would achieve this while also addressing a tight four-week installation time frame.

"There is very little downtime for a project like this between semesters, and during winter breaks the weather is often just too severe in Durango," Lee said. "We needed a system that could be delivered, installed and up and running during the only feasible four-week period of the year to execute it."

"In this application, time was of the essence, and with its challenging logistics and welding requirements, a rigid steel system would have involved more time than the college had," said Kevin Hale, a REHAU account manager who specializes in energy transfer piping. "Easily maneuverable, flexible and available in long pipe lengths requiring minimal fittings, the REHAU INSULPEX PEXa energy transfer piping system was a natural fit."

"The job required trenching across the main quad, which is one of the reasons we needed to get it done quickly and when students weren't going to be on campus," said Lee. "We ended up only making four field joints during the project, thanks to INSULPEX's long coil lengths and the overall highly efficient piping layout provided by REHAU. I'd say it went as quickly as it possibly could."

The project team, which included installing contractor AMI Mechanical, ran more than 4,500 ft of 2-, 2 1/2- and 3 1/2-in. INSULPEX pipe underground from each of the three residence halls to a fourth (Cooper Hall) in which the centralized plant system/boiler room was created.

Since the project's completion in May of 2012, Rob Lee and the Fort Lewis College mechanical systems maintenance team have noted the new centralized hot water system's seamless operation.

"We have no complaints, and the system has undoubtedly reduced the energy load from the four residence buildings," said Lee. Also according to Lee, thanks to superior product performance and project support, the REHAU INSULPEX system is at the top of the list for similar jobs in the future.

"REHAU and their technical associate offered an exceptional level of assistance throughout the project, including being on-site to show the team how to make the necessary connections and oversee that they were done properly," Lee said.

"The result was a quick, high-quality and reliable system installation that has been performing as expected for more than a year now."



Project: Fort Lewis College, Durango, CO
Construction type: Educational, opened in 2012
Project scope: 4,500 ft (1,372 m) INSULPEX pipe
Mechanical engineer: McKinstry
Mechanical contractor: AMI Mechanical, Inc.
REHAU systems used: INSULPEX® Pre-insulated PEXa piping

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