

## CASE STUDY ROCK LITITZ, REHEARSAL FACILITY

## - PROJECT DETAILS

- $\cdot$  Located in Lititz, PA
- · 52,000 sq. ft.
- $\cdot$  90 ft. tall
- · 12 Airius Air Pear 100-EC fans
- · 0-10VDC Control
- · 277VAC single phase power

## - ROCK LITITZ, REHEASAL FACILITY -

LITITZ, Pa. - Airius Air Pear destratification fans will be making sure some of the hottest rock bands in the world are rehearsing in comfort as part of the HVAC design of the new Rock Lititz Studios, a \$7 million,

52,000-square-foot production-rehearsal facility that's the largest in the world.

The facility held its official grand opening on Sept. 20, with the first bands expected to begin using the mammoth-sized studio soon.

Twelve Air Pear Model 100 fans, Airius' second largest air destratification fan, now operate in the lattice of steel girders and walkways designed to handle lighting, high-tech video, laser props and sound systems. The ceiling grid can handle one million pounds of overhead load.

The Airius fans were "the perfect solution" for destratification that could fit within the 8 foot by 8 foot steel grid, said Mark Graybill, P.E., of Accu-Aire Mechanical Services Inc., the Lancaster, Penn.-based company that both designed and built the facility's HVAC system. The fans are installed at 90 feet above the finished floor, Graybill said, and typical HVLS fans simply would not have been able to fit without interfering with lighting and other production rigging.

Even from 90 feet, "you can feel a slight breeze on the floor" from the large Model 100 fans, Graybill said.

Tom Hilberts of Robert M. Hilberts, Inc. a manufacturers rep for Airius based in Conshohocken, Penn., also assisted with getting the Air Pear fans into the winning bid.

Installed in the cube-shaped Rock Lititz space, the Airius fans will circulate the hotter air from the ceiling level to balance, or "destratify" the rehearsal space's floor-to-ceiling temperature, reducing heating run time, cutting overall energy use and increasing comfort for everyone working there.



Accu-Aire Mechanical designed a system with sensors at 90 feet and at about four feet to detect when there is a 10-degree difference in temperature, switching on the Air Pear fans to equalize the building's temperature.

The HVAC system, which distributes air at the 27-foot level, is designed to use the destratification fans primarily in the colder winter months because allowing stratification during the summer months significantly reduced the design cooling load in the bottom section of the studio.

The Air Pear fans were an integral part of the overall HVAC design, Graybill explained, which was different from any other contractor bidding on the project. "The general contractor said our design was the most likely to succeed" in this large, open and high facility, Graybill explained.

A second phase of construction on the Rock Lititz 96-acre campus could add another 250,000 square feet of space for the cluster of entertainment companies working along side each other. These companies, according to a story in Forbes, include sound company Clair Global; Atomic, a lighting and design company; StageCo, which builds large steel structures like a big "claw" used in U2's 360 tour; and Tait Towers, which builds sets for the largest rock bands. It's estimated that the Rock Lititz campus will help create at least 600 new jobs.

The region already is home to more than a dozen entertainment-based companies, according to the RockLititz.com web site. "The top 50 world-wide tours accounted for sales of 24 million tickets and a gross of \$1.65 billion during the first half of 2014, according to Pollstar," the Wall Street Journal stated. The Rolling Stones alone, the story reported, brought in \$115.1 million.