



ULTRA-QUIET CONDENSING UNIT

Background...

Qwest Communications has critical switching located in neighborhoods in order to shorten line distance, but 30 ton loads using traditional designs produces unacceptable noise levels at night.

Solution...

ArctiChill deployed a specialty air-cooled condensing unit with ultra-low noise designs. Special fans, compressor compartments, and engineered 3-ply sound barrier materials are used.

Results...

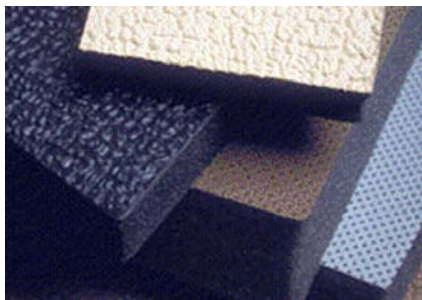
The Qwest switchgear equipment room is effectively and reliably cooled and the system is so quiet, you can easily hold a quiet conversation standing beside the unit.



- Critical cooling of telecommunication switch gear room.
- Oversized condensers permits use of lower speed fans.
- Low noise, forward sickle composite fan blades are VFD controlled.
- Cabinet interior is lined with sound attenuation materials.
- Low noise semi-hermetic compressors have cylinder unloading.
- Compressors are housed in acoustically lined compartments.
- Sound pressure levels of 67 dBA at 3 feet are achieved.
- Easy-access service, corrosion free materials and reliable operation.

Critical Duty and Ultra-Low Sound...

Qwest Communications found they can serve residential customers better, and earn higher revenue from DSL by locating switchgear closer to their clients. In many cases, Qwest purchases houses, maintaining the outside appearance, but converting the interior to state-of-the-art switching centers. ArctiChill participates in Qwest being a good neighbor by providing the lowest noise, most reliable condensing units available. At night, when most neighbors are at home and residential usage goes up, noise levels are most critical. Qwest solves the problem by looking to ArctiChill.



Acoustical materials are designed to significantly attenuate low and high-octave band sounds. Fan plenum areas as well as entire cabinet can be lined with the materials.

Rugged, low noise semi-hermetic compressors are contained within lined compartments to reduce compressor noise.

