



Volume Two / Issue 2 **CASE STUDY**
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Wildomar Elementary School Obtains a Sound Education for its Students

PRODUCT
Comfort™ Series Heat Pump



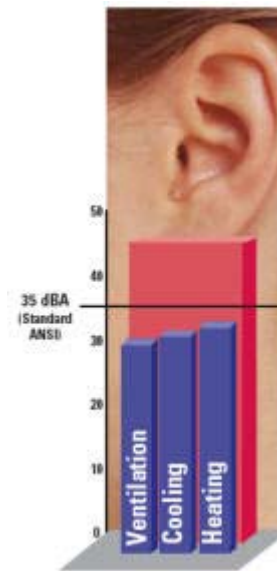
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At first glance, recess at Wildomar Elementary looks and sounds like any other grade school around the country. The squeals of children playing, secrets being whispered and friends just talking in the schoolyard seem pretty normal. But for a small group of Wildomar's students, hearing these sounds is something that has never been taken for granted. They have been surgically fitted with cochlear implants, a technology that can restore partial hearing to profoundly deaf individuals.

The classroom where these students are taught is a typical, portable double-trailer style classroom that was originally heated and cooled by a large, wall-mounted unit. But whenever the unit was on, the hum from the compressor, as well as the noise produced by air flowing through a poor air distribution system, interfered with the children's ability to hear the teacher and learn.

To better understand the problem, Riverside County school authority Tim Lopez called on David Lubman, an internationally recognized acoustical consultant with specific experience in classroom environments, to analyze the existing system and make recommendations.



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With recommendations in hand, Tim Lopez contacted Sal Trujillo, Jr. of Hasco Heating and Air to make the necessary modifications. "We began by designing the air distribution in the ceiling space with more —and oversized — ducts on both the supply and return side. We also installed 24" x 24" steel high-volume supply grilles. Our goal was to supply the same volume of air, but deliver it at a slower and quieter rate," stated Trujillo.

Although sound levels were reduced, they were still above the target of 35 dBA. It was then that Lopez and Trujillo decided to implement additional steps recommended by Lubman: that the existing wall-mounted unit be removed and a new unit installed, but located away from the building.

Trujillo contacted Dave Ellis of US Air Conditioning Distributors in City of Industry, CA, who recommended Carrier's Comfort™ Series Packaged Heat Pump. "The Comfort Series delivers everything this particular application, as well as what similar school applications, demand... low operating sound levels" Ellis explained.

David Lubman precisely monitored and recorded the classroom's sound levels throughout the project. "A feature that makes Wildomar so interesting is that noise levels were measured both before and after the installation. The "before" levels were in the mid-40s. The "after" is in the low 30s. That's a 10 to 15 dBA improvement. It's really noticeable!" Lubman continued, "I've measured sound levels of other manufacturer's equipment in similar applications, but none are as quiet as the Carrier unit." Carrier Comfort Series heat pumps have sound ratings as low as 72 dB.

The difficult goal of providing sound levels of 35 dBA or lower in Room 44 of Wildomar Elementary School was met by using professional expertise, proper acoustic treatment, and one of the quietest heat pump units in the industry.

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