

How to keep cool at school without costly air conditioning



Central air-conditioned comfort in classrooms, auditoriums and recreation halls is wonderful – always provided the school can afford the power bill. Kevin Kenny director of high volume low speed (HVLS) fan specialists Airaway recalls the sorry tale of a school in northern Queensland that was struggling with an out of control \$50,000 monthly electricity cost when it came to his company seeking a low cost solution... which HVLS fans provided without sacrificing staff and student comfort.

Airaway is the exclusive distributor and installer in Australia for the education, sports, religion and equine sectors of American made Big Ass fans [the name comes from the American habit of calling something big and impressive ‘Big Ass’ as in a ‘Big Ass road train’].

By moving very large volumes of air at low speed, HVLS fans create a steady airflow which cools by evaporative cooling – the rate at which perspiration is evaporated from the skin’s surface and can make the surrounding area feel between 5–10°C cooler.

Conversely, in winter, when air trapped under the ceiling can be 5–10°C higher than at floor level, the fans move the warm air down so the temperature is higher where the thermostat is positioned, usually at eye level, and that less heated air is demanded from the expensive heating system.

For schools, fans are the cost effective

solution – very quiet, very economical and very reliable – wherever temperature, air quality and noise levels are key factors in delivering student comfort and enhanced concentration levels. In the auditorium, for example, Big Ass advanced onboard electronic controls prevent interference with complex sound equipment to eliminate RFI ‘noise’ during music performances.

Multi purpose halls carry the challenge of the greatest demands for temperature control across widely differing heat load conditions that can vary from the gentlest cooling effect for religious services, examinations or student study to physical activities.

The PowerfoilX fan in the multi purpose hall or covered outdoor learning area, is impervious to ball strikes, making it ideal for basketball and other high energy games, with the added occupational health safety factor of reduced perspiration making slippery floors, falls and injuries a much more remote risk. The amazing performance of this fan is illustrated by the largest 7.3m model delivering the same air as 61 wall-mounted or pedestal fans (running at 80dBA).

In boarding dormitories, at the end of the day when quiet study and a good night’s sleep are needed, the running cost of an Isis model providing cooling to several boarders equates to less than 10 cents per hour.

Where a ceiling height of 4m is available in the classroom or library, the silent Isis fan

may be the right choice. The new 1.5m Haiku is another; this award winning fan is available with airfoils made from Moso bamboo, durable matrix composite or aluminium, holds the top Energy Star ranking and uses 80% less energy than conventional ceiling fans.

Big Ass fans have everything to offer,” Kevin Kenny says. “The operating cost can be as low as \$200 for a year compared to thousands of dollars for central air conditioning for a given area.

“We suggest that the fans are turned on high for a short while at the start of the day to get the air moving, then reduced to the required breeze for comfort. It really doesn’t matter if staff members forget to turn the fans off when a class is over because the running cost per hour is measured in cents.

“With extended manufacturers’ guarantees [10–15 years depending on the model], repairs and maintenance isn’t an issue.

“And finally, the fans are beautiful examples of architectural design. In the very new building, the fans can be sculptures that move; in the context of an older building, we can powder coat the airfoils to match or contrast with ceilings and wall colours, and even decorate with the school’s crest.”