

Use variable speed drives to improve employee productivity.

When used in conjunction with HVAC systems, variable speed drives allow for better airflow control and temperature setpoint control. Both of which have been shown to increase comfort and productivity. In fact, productivity benefits for upgraded control of HVAC fans range from 1-2 percent to over 20 percent in some cases. Improved temperature control has been shown to save \$150 to \$300 per employee per year at nominal wage levels.

Productivity measures used in studies include the speed and accuracy of office work tasks, the speed of completing academic work, the speed and accuracy of typical manufacturing tasks, student test scores, improved proofreading or creative thinking just to name a few.

Lower ventilation rates can also lead to higher rates of respiratory illness. Studies show that high-density, lower ventilation buildings, such as barracks, jails and healthcare facilities, are prone to significantly higher rates of such illness (up to 370 percent higher) due to higher airborne concentrations of infectious viruses and bacteria.

From a financial standpoint, the annual direct medical cost of building-related health conditions (headache, respiratory) per employee is \$745. If an upgraded HVAC system cuts that by one-third, then you'd save \$250 per employee.

On top of that, the total equivalent workdays lost to building-related health conditions is estimated to be 10 days per year. That amounts to about \$2,000 per employee. Again, reducing that by one-third would save roughly \$650 per employee, making the total potential health-related savings \$900 per employee.

Upgrading your HVAC system with a variable speed drive that better controls the temperature setpoint and allows for additional airflow increases employee productivity.

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Learn more about variable speed drives and how they can help increase productivity in your facility. Contact your account manager, call 1-800-787-1706, or email efficiency@nationalgrid.com.