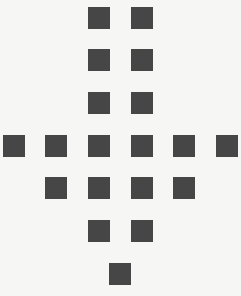
DON'T LET HUMIDITY DAMPEN YOUR PROFITS

4 Reasons You Need HVLS Fans in Your Building

RITE-HITE FANS

DOWN WITH MOISTURE

In your building, humidity can be one of the biggest challenges you face every day. In 2010, the U.S. Environmental Protection Agency (EPA) estimated that indoor air pollution, which can be caused by humidity, costs businesses **$93 billion, with a productivity loss of $73 billion to $87 billion**. According to the National Floor Safety Institute, **falls are the leading cause of employee injuries – and slips because of moisture on the floor make up more than 10 percent of total falls**.



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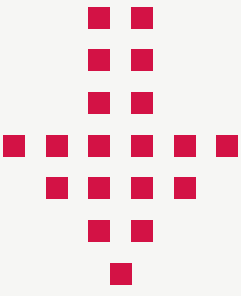

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PRODUCTIVITY LOSS

REASON #1 SAFETY

Sweating Slab Syndrome (SSS) occurs when moisture intermittently develops on the surface of an interior concrete slab, such as a warehouse floor. SSS can increase the slickness of the concrete surface and pose a serious risk to the safety of workers and materials handling operations.

According to the National Floor Safety Institute, **the majority of workers' compensation claims are attributed to employees slipping on slick floors, and are the leading cause of occupational injury for people aged 15-24 years**. Slips and falls also account for over 1 million hospital emergency room visits.

HVLS fans can help reduce or eliminate SSS by minimizing ceiling-to-floor temperature differentials and increasing the surface evaporation rate, ultimately helping you to create and maintain a safer working environment for all your employees.

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REASON #2
PRODUCTIVITY

By removing moisture, HVLS fans improve air quality and make individuals more comfortable. **Studies show that as temperatures go up, productivity drops**, and just a few degrees temperature difference can have a 5% or more degradation in productivity.

Humidity plays a major role in the perception of heat in a building, and cutting down on moisture is one of the best ways to keep a building comfortable for employees.

HVLS fans can provide air speeds of 2 to 3 miles per hour to create the feeling of a **7 to 11 °F drop in temperature** when used as a stand-alone cooling system.

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=

7 TO 11 °F DROP IN TEMPERATURE

REASON #3
HEALTH

Humidity encourages the growth of airborne bacteria, mildew and mold which can significantly reduce air quality and contaminate surfaces and products.

Sick Building Syndrome (SBS) is a term used to describe situations in which building occupants experience acute health and comfort issues that appear to be linked to time spent in a building, even though specific causes can't be identified.

Humidity and stagnant air can be a primary cause of SBS. While high relative humidity may contribute to biological pollutant problems, an unusually low humidity level may worsen the effects of mucosal irritants and may even prove irritating itself.

The increased air movement HVLS fans provide helps to dissipate moisture and disperse concentrations of airborne contaminants including chemical fumes, pollens, bio-aerosols, or other volatile organic compounds (VOCs.)

REASON #4 PRODUCT INTEGRITY

Both equipment and inventory can be negatively affected by too much humidity, which can result in substantial product loss or manufacturing downtime. Heating and cooling systems control temperature, but increased airflow is key to controlling condensation and corrosion.

The table to the right can be used as a guide to the recommended Relative Humidity - RH - in some common production and process environments.

HVLS fans provide savings by minimizing the effects of condensation on cardboard packaging and preventing rust. **The air movement produced by the fan can speed the evaporation rate of the moisture on metal's surfaces by up to one third**, decreasing the time in which corrosion has to form.

Production and Process Environment	Recommended Relative Humidity (%)
Seed Storage	35 - 45%
Semiconductors	30 - 50%
Paper Storage	35 - 45%
Computer Peripherals	30 - 45%
Powder Storage	25 - 35%
Wood Drying	50 - 55%
Normal Storage	15 - 25%
Chemical Laboratory	30 - 45%
Preventing Rust and Corrosion	< 40% for no rust generation
Electronics	45 - 60%

WHY HVLS FANS?

More facilities are installing high volume, low speed (HVLS) fans as a complement to their HVAC systems. HVLS fans cut down on moisture and bacteria in buildings, while operating more efficiently than conventional fans. Furthermore, HVLS fans can move larger volumes of air than traditional floor or ceiling fans. **A single fan can cover areas up to 22,000 square feet and can replace as many as ten to 20 floor fans, or smaller ceiling fans.**

WHY RITE-HITE?

Blade design - Rite-Hite Fans' unique Propell-Aire blade design has a complex contoured shape (tilt, taper and twist) that varies along its length. It is the shape, not the number of blades that generates the large volume of air movement needed for an effective HVLS fan.

Blade/hub connection - 10-year structural integrity warranty on the blade to hub connection. This connection is critical, because like the blades-of-a helicopter, a combination of centrifugal force and air pressure causes the blades to move upward during operation.

Safety - All Rite-Hite HVLS ceiling fans have a three-way motor-to-hub safety connection.

Local service & support – Installation, technical support and local sales and service representatives throughout the lifetime of your product.

Click here to request a ***free building assessment***. We'll work with you to identify humid areas and choose the best solution to control humidity throughout your building.

Rite-Hite is a world leader in the manufacture and sale of loading dock equipment, industrial doors, safety barriers and high-volume, low-speed industrial fans – all designed to improve safety, productivity, and energy consumption.

Comprised of seven separate corporations, the family-owned company was founded in 1965 by Arthur K. White, father of Rite-Hite's current owner and chairman, Michael White. The company has always placed an emphasis on research and development, which has led to the ongoing creation of new products that pioneer the industry.

www.ritehitefans.com