

RITE-HITE FANS CASE STUDY



CANADIAN COMPANY MOVES PAPER AND AIR

Founded in 1964 with headquarters in Kingsey Falls, Quebec, Canada, Cascades produces, converts and markets packaging and tissue products composed mainly of recycled fibres. Cascades employs more than 14,000 employees who work in over 100 modern, flexible production units located in North America and Europe.

The Cascades Energy Action Group was created to help all Cascades' plants lower their energy consumption. The group offers its expertise to the different Cascades units and serves as a catalyst in order to meet the energy reduction targets that Cascades has established.



One recent initiative was the installation of the Revolution High Volume, Low Speed (HVLS) Fan from Rite-Hite. A 16' diameter Revolution Fan was installed to help lower the heating costs of a 150,000 square foot Cascades warehouse in Kingsey Falls.

Eric Emond of the Energy Action Group explains Cascades current situation, "The heating system of the warehouse consists of gas aerotherms located mainly above the loading dock doors. Although the orientation of the aerotherms is towards the doors, the heated air rapidly rises and accumulates at the ceiling instead of heating the work area of the employees, keeping the loading dock area cold in the winter time."

The Revolution fan re-directs the heated air towards the floor, increasing employee comfort by keeping the ambient air at a comfortable level. Since installing the fan, the heating system does not start as often, which has reduced Cascades energy consumption.

The advanced design of the Revolution Fan features four aluminum Propell-Aire™ blades, which vary in width and pitch angle along their entire length. That compares with other HVLS fans with six or 10 blades. The unique design moves air more consistently below the entire diameter of the fan, and then horizontally along the building floor, up to 85 feet from the center of the fan in all directions. The shape is impossible to produce with extruded blades used on other HVLS fans.

Two benefits, one solution

According to Mr. Raymond Lavoie, warehouse supervisor, "Employee comfort has been significantly improved in the winter time because of better heat distribution at the loading dock area. And, in the summer time, the Revolution generates a cooling breeze that makes more pleasant working conditions for the warehouse employees"

Before the Revolution Fan was installed, the heat and the humidity made the air stagnant in the warehouse and created very uncomfortable working conditions.

In comparison, the Rite-Hite Revolution Fans are a much better alternative than the small radius fans that have been commonly used over the years. Those are almost useless when it comes to re-circulating a large volume of air in a large area such as a warehouse or a production area in a manufacturing plant.

Emond adds, "We are convinced of the efficiency of the Rite-Hite HVLS Revolution fans and strongly believe that this technology should be included in every new construction project. We will be installing many fans in our warehouses and plants of the Cascades group in the coming years. This product is very much in line with the Cascades philosophy of energy conservation.

A variety of options for every application

The Revolution Fan from Rite-Hite comes in 8', 12', 16', 20' & 24' diameters and is available in a 2-blade or 4-blade model. For more information, please visit www.ritehitefans.com or contact your local Rite-Hite Representative.





REVOLUTION[®]

HVLS FANS FROM RITE-HITE[®]

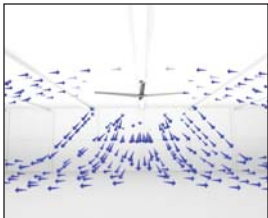
A CHANGE IS IN THE AIR

It's RevolutionAIRy. The original Revolution HVLS fan from Rite-Hite Fans delivers the most air movement of any HVLS fan on the market. The Revolution is today's standard for high-performance, large-space building environments.



VisionAIRy Design

- ▶ Propell-Aire™ custom aluminum blades with Vortex Tips, incorporates tilt, taper and twist to provide consistent airflow across the entire length of the blade
- ▶ Available in 8', 12', 16', 20' & 24' diameters
- ▶ Available in 2 or 4 blade configurations
- ▶ Custom colors and logos available



LegendAIRy Performance

- ▶ Ideal for large buildings with high ceilings
- ▶ Greatest air flow of any HVLS fan on the market
- ▶ High-performance design moves air up to 85' from the fan's center in all directions
- ▶ Uniform air flow eliminates dead air holes



ExtraordinAIRy Construction

- ▶ Extruded, precision-milled aluminum hub and bolt
- ▶ Vibration-reducing material reduces stress to hub by 50% to 75%
- ▶ Rotationally-balanced blade/hub for superior performance
- ▶ Three-way motor-to-hub safety connection
- ▶ Solid design with 40-year track record
- ▶ Stabilizing cables, beam clamp and motor housing



Controls

- ▶ Simple on/off button
- ▶ Adjustable speed control
- ▶ Solid-state, variable-frequency drive
- ▶ Lockout/tagout capable



Fan Commander

- ▶ Remote mounted, touch screen control box for operation of up to 18 Revolution Fans
- ▶ Relay input control for easy on/off interface
- ▶ Optional ethernet port for network access

Where you will find Rite-Hite Fans:

- ▶ Distribution centers
- ▶ Manufacturing facilities
- ▶ Warehouses
- ▶ Athletic facilities
- ▶ Airports
- ▶ Convention centers
- ▶ Health clubs
- ▶ Schools/universities
- ▶ Retail
- ▶ Stadiums
- ▶ Arenas
- ▶ Auto dealers
- ▶ Lobbies/atriums
- ▶ Libraries
- ▶ Religious facilities
- ▶ Hotels
- ▶ Theaters
- ▶ Bars/restaurants
- ▶ Hospitals
- ▶ Hundreds of other applications