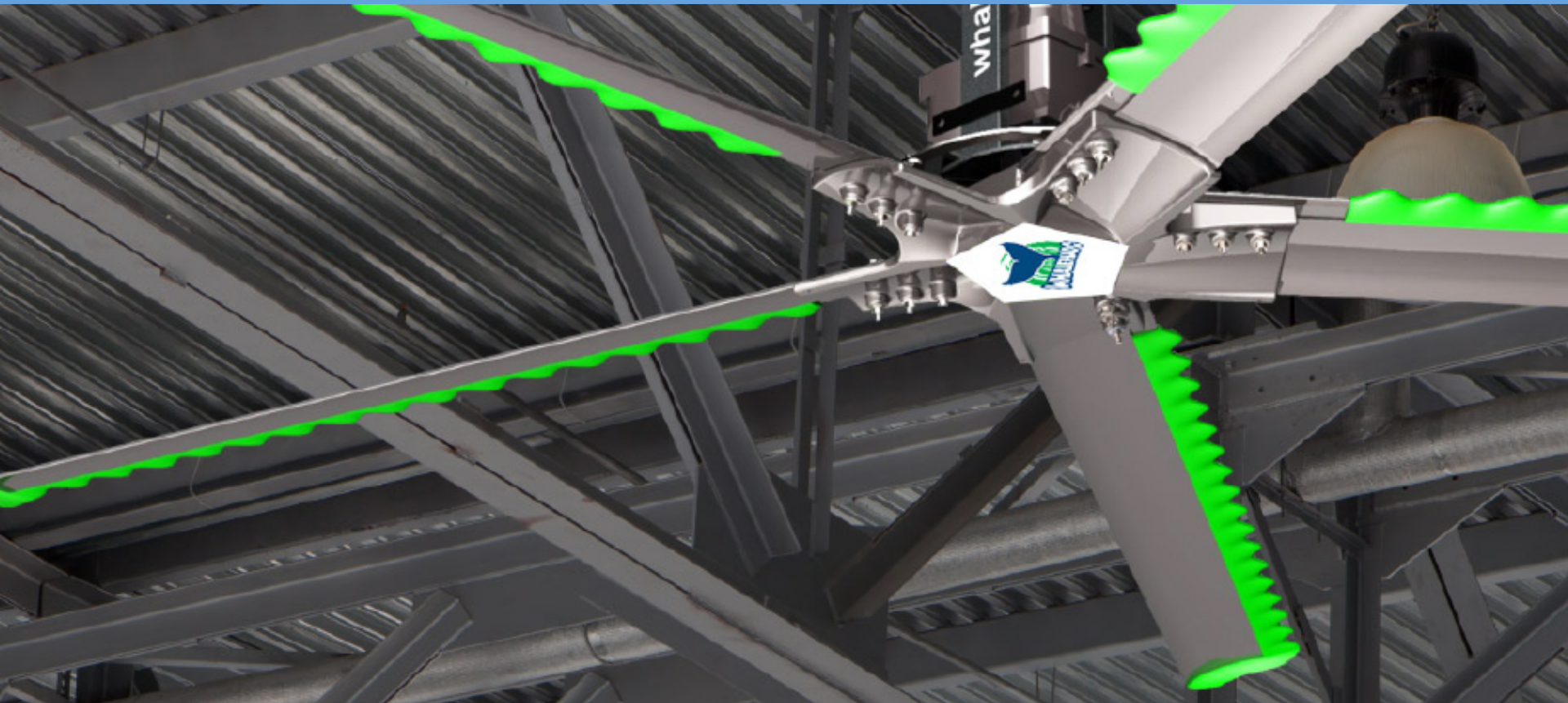




Whalenado HVLS Fans

Sales Presentation



Whalenado HVLS Fans

Last Updated: April 24, 2015

What Kind Of Product Is This...

The **Whalenado HVLS Fan** is the industries solution to lower heating/cooling bills and improve employee working conditions.

- Reduces Utility Energy Bills (Destrat)
- Improves working conditions (cooling effect)
- Equalize temperatures floor to ceiling, front to back
- Speed up process times in facilities (bakeries, printers, disaster relief etc)
- Regulate temperatures to help strong temperature sensitive products/goods
- Increases safety by reducing condensation/moisture



How Does It Work...

What does a High Volume, Low Speed fan do?

- A lot of air movement at slow rpm
- Nearly 400,000 CFM at 57 RPM and only 1,5kw motor

How is it different from other fans?

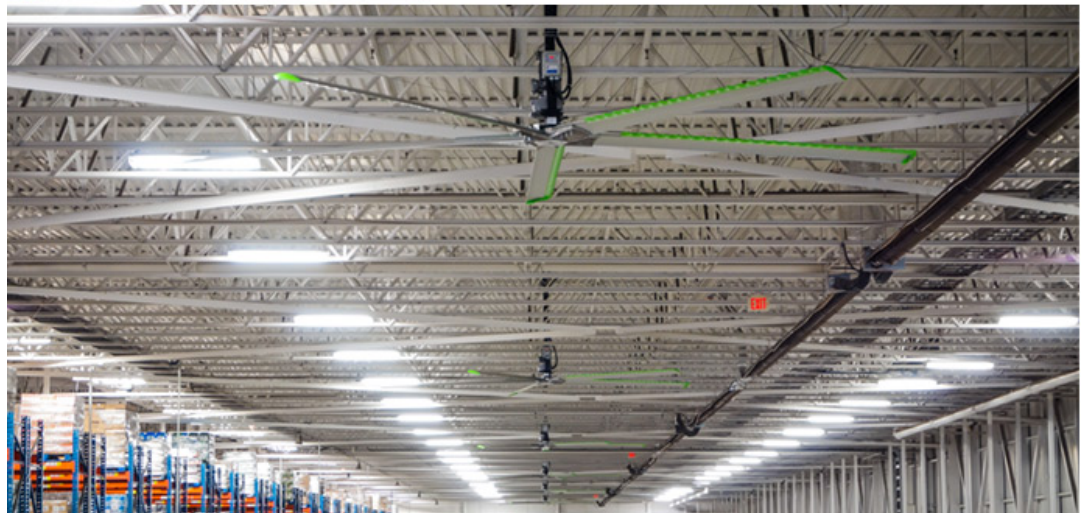
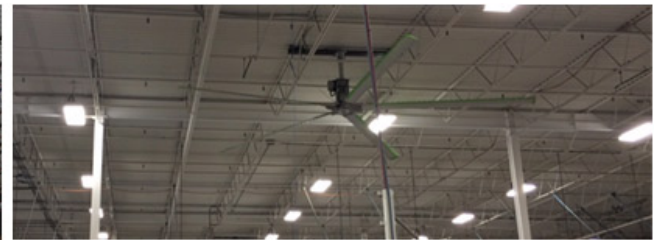
- Larger Size (range from 8 – 24ft in diameter)
- Low Energy Demand (0,75 – 1,5kw motors)
- Patent Design & Engineering (Tubercle air foil blades)
- Quiet Operation (up to 64dBa)
- Controlled by a Variable Frequency Drive



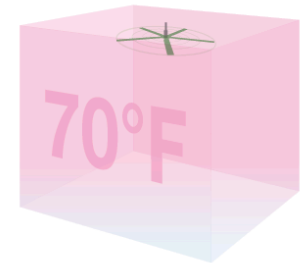
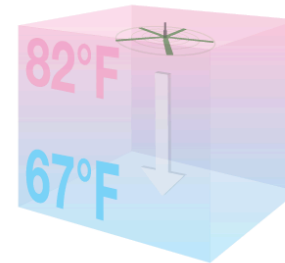
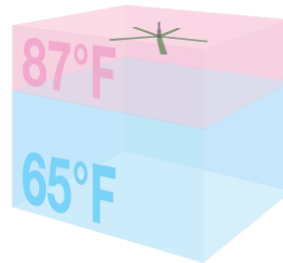
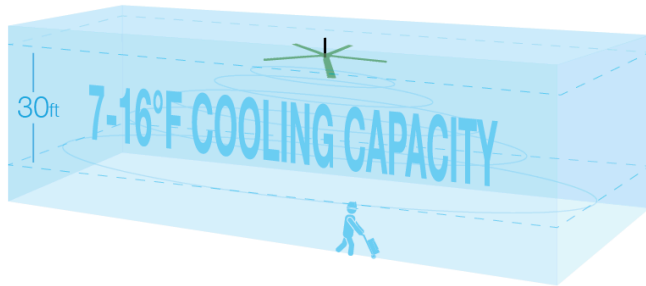
Standard 36 Inch Warehouse Fan

Industries and Uses

- Warehouses
- Manufacturing
- Food Distribution
- Cold Storage
- Distribution Centres
- Gymnasiums
- Auditoriums
- Workshops
- Big Box Stores
- Indoor Pools
- Hangars
- Factories
- Car Dealerships
- Dairies



HVLS Fan Seasonal Energy Savings



Keep Summers Cool

Prevent Lost Heat During Winter Months

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

JAN

FEB

MAR

APR

Save 6% per degree the thermostat is raised while also providing employees with an evaporative cooling effect.

Save 1% per foot of ceiling height while turning over air inside the building.

By raising the thermostat by 2 degrees in the summer, a savings up to 12% can be seen.

35 Foot ceilings can see a energy usage reducing up to 35%



Improving Environments

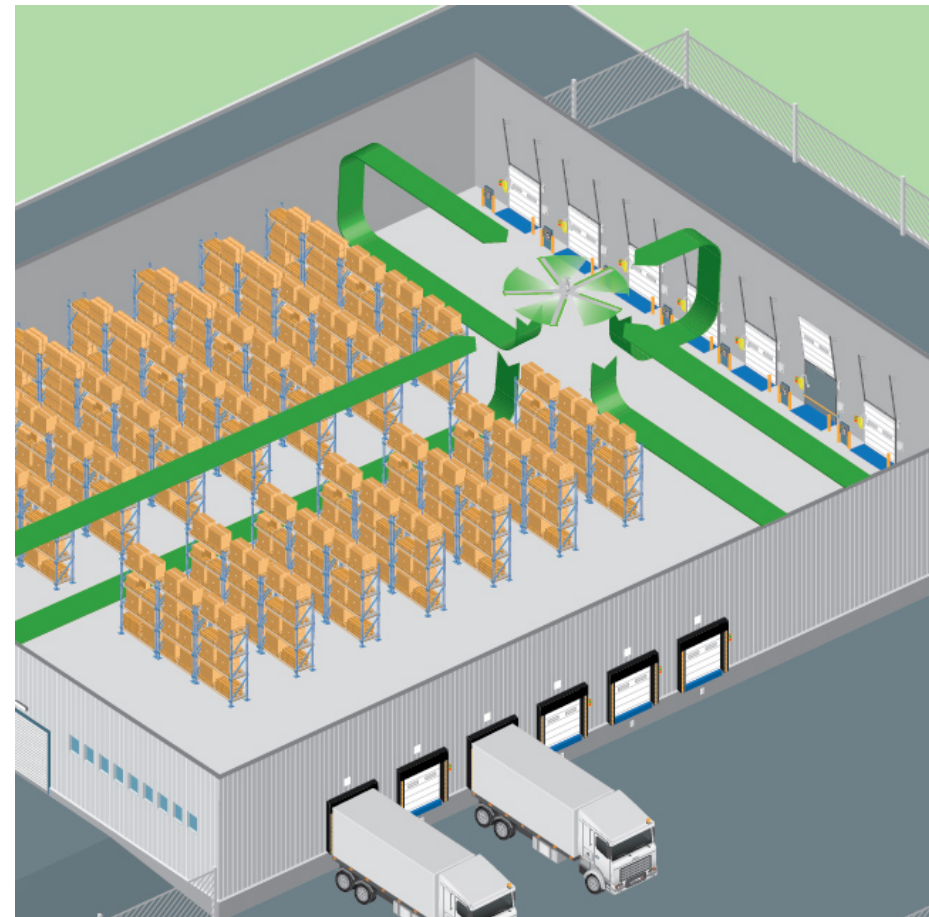
Opportunities	Solutions	Type
No Destratification	Pushes hot air down to reduce utility bills	Financial
Inside Hot/Cold Zones	Equalizes building temperatures	Comfort
Heat stress (employees)	Cooling Effect of 7-16°F on employee skin	Safety
Condensation in cold storage facilities	Prevents moisture build up (safety)	Safety
Overstressed HVAC systems	Reduce energy requirements	Financial
Manufacturing Issues	Equalized temperatures ensure manufacturing space is optimized for production	Financial /Safety
Poor Air Quality	Removes “stale” air by replacing with fresh air sources	Safety

Optimized Fan Placement

The placement of a Whalenado HVLS fan is essential to ensure it maximizes performance and does not come in contact/interfere with any obstacle.

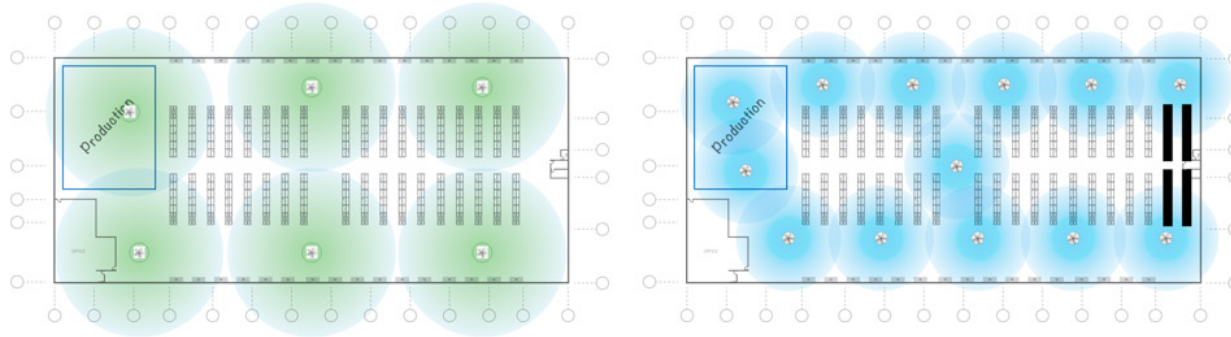
We study your location to:

- Turnover air to destratify the building
- Optimize based on your HVAC system
- Use multiple fans to work together to cover larger areas
- Cool your worker areas



Warehouse Use Comparison - With Obstructions

For these examples, we will be using a building that is 400 ft wide by 800 ft long with a height of 35 ft. This distribution facility has racking in the middle of the structure.

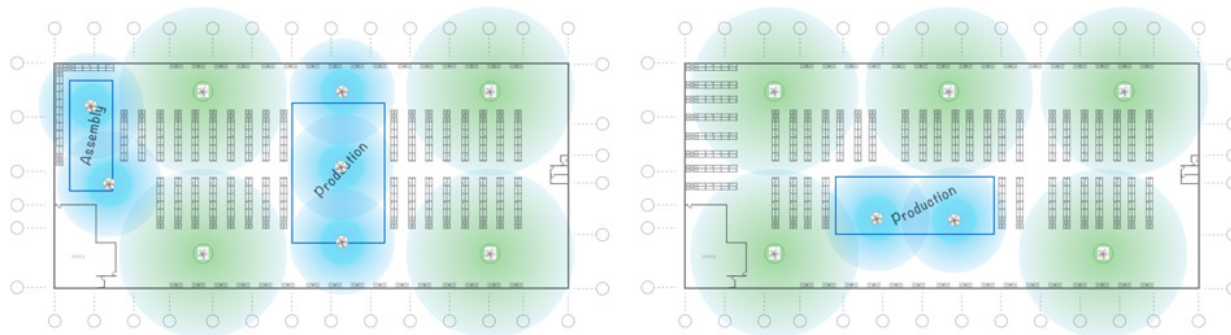


Destrat Only

Cooling Only

Warehouse Use Comparison - With Destrat and Cooling

For these examples, we will be using a building that is 400 ft wide by 800 ft long with a height of 35 ft. This distribution facility has racking in addition to a large assembly area.

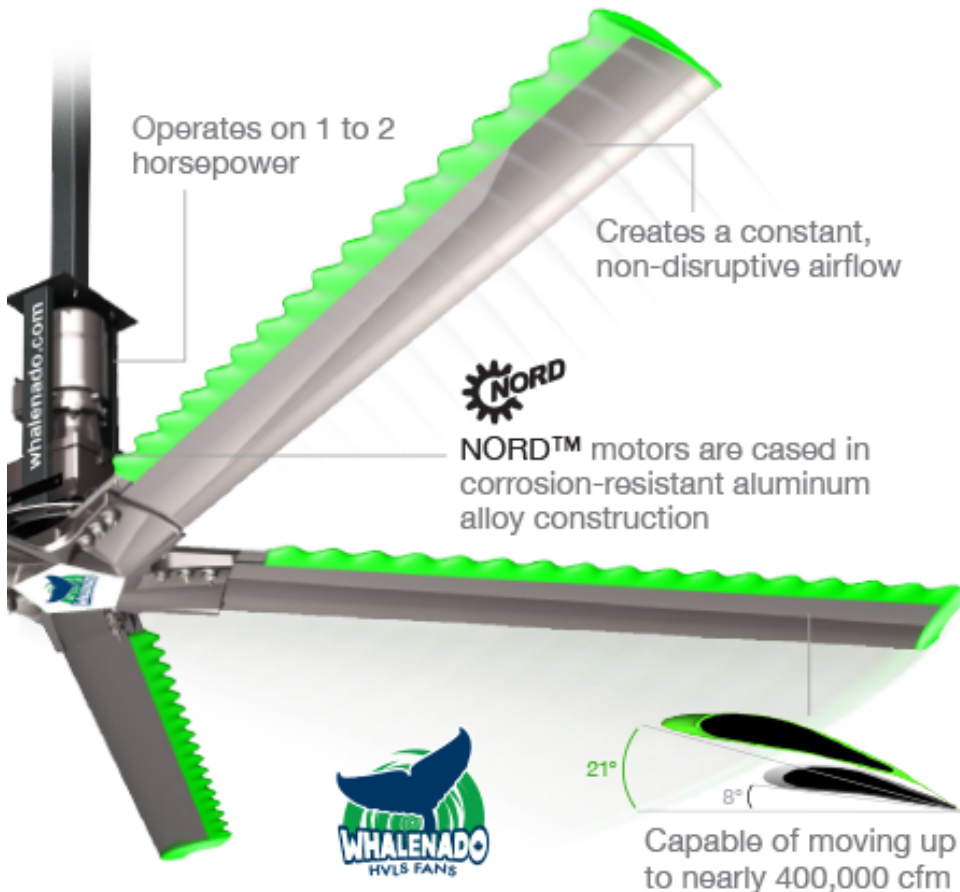


Destrat and cooling

Destrat and cooling

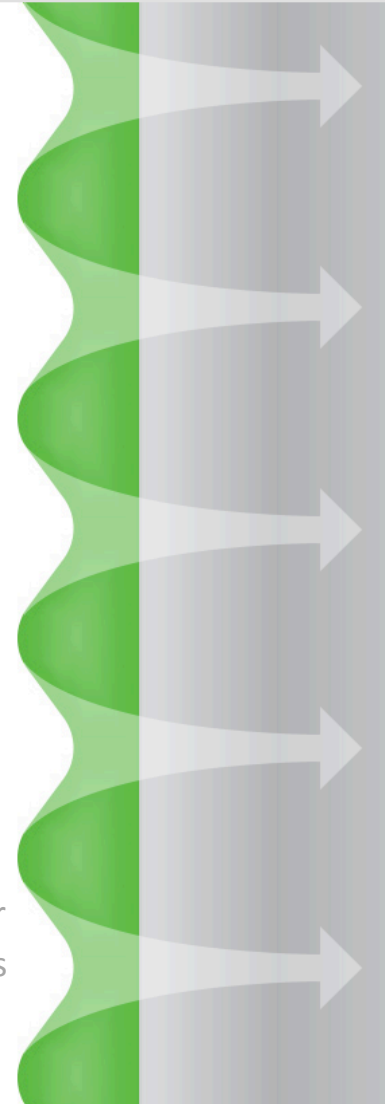
Whalenado Features

WhalePower Technology



Patented design

Airfoils channels air through continuous ridges



Product Features

- NORD™ In-line heavy duty gearmotors using a one piece Unicase™ design.
- Superior performance without the need for high power consumption.
- Airfoils are engineered to extend the fan life by preventing blade vibration resulting in efficient operation
- Provide coverage over larger areas while resulting in an evaporative cooling benefit of 5-9° C (7-16°F).
- Airfoils are 3x higher (21°) than competitive models producing larger areas of coverage.
- Non-disruptive airflow is evenly distributed resulting in constant/even temperatures.
- Neutralize hot/cold zones through thermal destratification (safer, more comfortable environment)
- Require less maintenance resulting in recommended inspections every 20,000 hours of operation.
- Airfoil colours can be customized to match interior design or corporate branding requirements.
- Class leading Lifetime warranty on Whalenado blades and hub
- During destrat, the Whalenado HVLS fan uses the same energy as an 80 watt light bulb

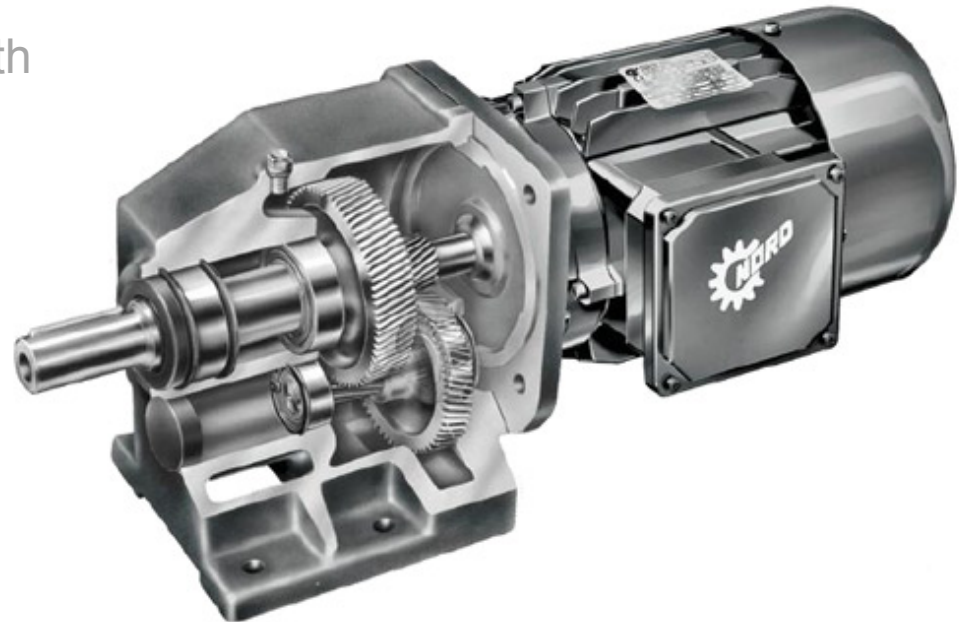
Nord GearMotor Advantages



Item	Nord	Competitors
Backlash	Not relative in this application	State it is a selling feature (it is standard)
HeliCamber gears	Nord is the leader but everyone has it	State it is a selling feature (it is standard)
Taper bearings	Use superior spherical, rated B10 life	Use tapered which cannot offset counter forces
Synthetic Oil	Mobil SHC 630	Mobil SHC 630
Nitrogen filled	Not required, does not retain during operation	State it is self contained and prolongs life. Not humanly possible.
C-Face (Motor)	Uses motor with less wear parts instead. Makes all motor types but chooses Gearmotor specific to application.	Use C-face contains more parts which are packed in grease instead of oil. Only advantage is to add light on fan base.

Powered By Nord GearMotors

- Plunge ground shaft surface with double seals
- Vacuum heat-treatment for stronger components
- Fewer gear stages
- Superior chemical resistance
- One-piece housing design



Nord GearMotor Check Value

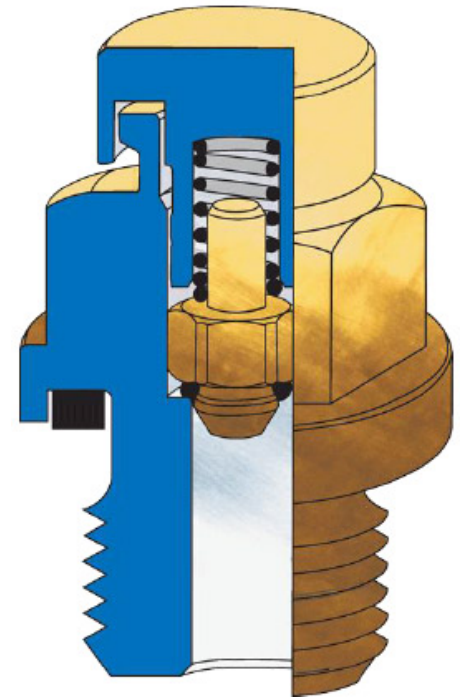
Ball spring check valve release built up pressure at 2 to 3 psi. This prevents damage when pressure builds up inside the housing.

- Keeps moisture and contaminants out
- Lubrication stays cleaner
- Oil last longer
- Longer-lasting seals, gears and bearings
- Reduces maintenance

IMPORTANT

Nord makes all gearmotor types – Whalenado fans do not use sealed gearboxes as they do not include proper measures to relieve pressure build-up.

If a HVLS Fan fails, it will be due to a gearbox seal failure that allowed pressure to exceed 5 psi.



Control Panel



Warranty

Whalenado HVLS fans include a Lifetime warranty on:

- Blades
- Hubs

Whalenado HVLS fans include a 15 year pro-rated warranty on:

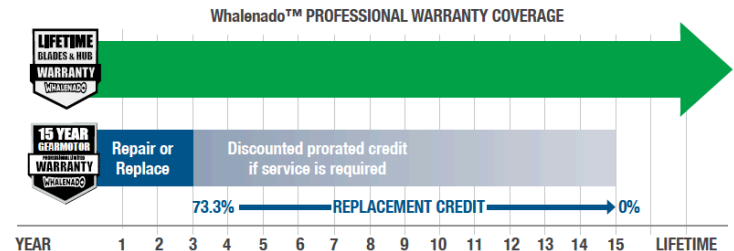
- Gearmotor (Nord)

Whalenado HVLS fans include a 1 year warranty on:

- Labour

A Warranty You Can Trust

Whalenado™ HVLS fans, come complete with a Lifetime Blade and Hub warranty in addition to a 15 Year Gearmotor and Control Panel professional limited warranty.

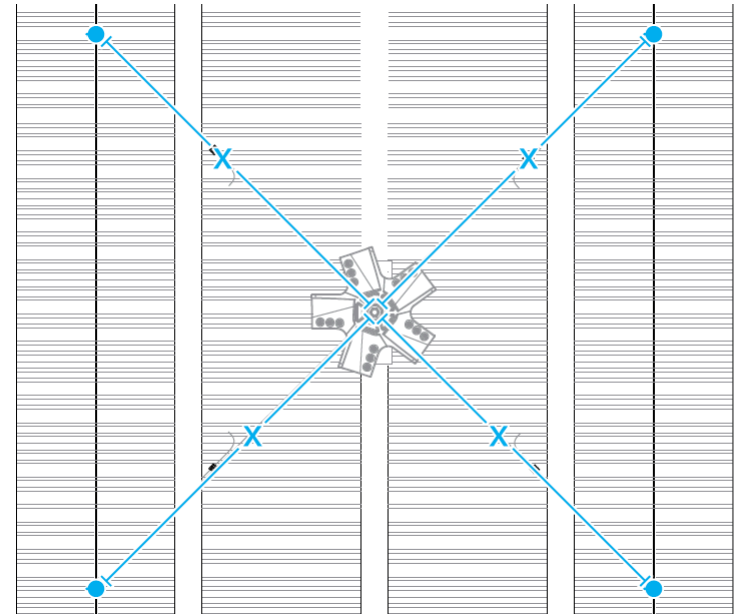


Discounted prorated amount is equivalent to the current list price with a deduction based on total years remaining on the 15 year warranty.



We work within the NFPA13 Requirements

- Fan must be 24 ft (7.3 m) or smaller
- HVLS Fan centered approximately between four adjacent sprinklers.
- **Minimum 3 ft (0.9 w) clearance between fan and sprinkler deflector**
- Fans must be interlocked to shut down immediately once a water flow signal from the alarm is received (NFPA 72)





“**Fans Bring In \$40,000 Annual Savings**”

THEIR CHALLENGE

Pepsi Edmonton was looking to lower operational costs in their 200,000 sq/ft facility and improve the comfort of their employees throughout the facility.

OUR SOLUTION

With the installation of four 24 foot Whalenado HVLS fans, Pepsi Edmonton has seen a reduction in their annual energy consumption by over 32%. This results in a cost savings of almost \$40,000 each year.

This is accomplished by Whalenado HVLS fans pushing down heat during the winter months to equalize the interior temperatures. By pushing down this rising heat from diffusers, energy is optimized and never wasted.

The HVLS fans also improved the warehouse conditions for employees by providing air circulation and added heat during the winter months. During the summer, the HVLS fans will provide a cooling effect on employees skin to prevent heat stress.



“Over \$45,000 In Energy Savings
+ consistent storage temperatures”

THEIR CHALLENGE

To prevent a temperature differential in an old building with 70 foot high ceilings. The combination of different temperatures has a negative effect on products being stored at ground level which require a consistent set point.

OUR SOLUTION

By installing six 20 foot Whalenado HVLS fans, US Steel was able to equalize temperate zones and maintain a temperature above dew point at ground level.

By pushing the hot rising air back towards the ground, an equalized temperature is achieved while reducing the amount of heating normally required to heat the same space. Thus lowering energy bills and saving 269,439 m3 in annual gas usage.