

ulti group

Revolution Fan
PRODUCT BROCHURE

ULTIGROUP.CO.NZ



A Change Is In The Air

The high volume, low speed (HVLS) fan is designed to circulate the air in your facility more efficiently and effectively.

Rotating at an optimised low speed, a HVLS fan moves the most air over the largest area at the lowest cost. This allows for maximum cooling and “destratification” (the process of keeping the temperature consistent from floor to ceiling), reducing a facility’s energy consumption by up to thirty percent.

Consult Ulti Group for specific fan applications including:

- Distribution Centres
- Manufacturing Facilities
- Warehouses
- Athletic Facilities
- Airports
- Convention Centres
- Health Clubs
- Schools/Universities
- Retail
- Stadiums
- Arenas
- Auto Dealers
- Lobbies/Atriums
- Libraries
- Religious Facilities
- Hotels
- Theaters
- Bars/Restaurants
- Hospitals
- Public Transportation Facilities
- Food Manufacturing Facilities
- Pharmaceutical Processing Centres
- Hundreds of Other Applications



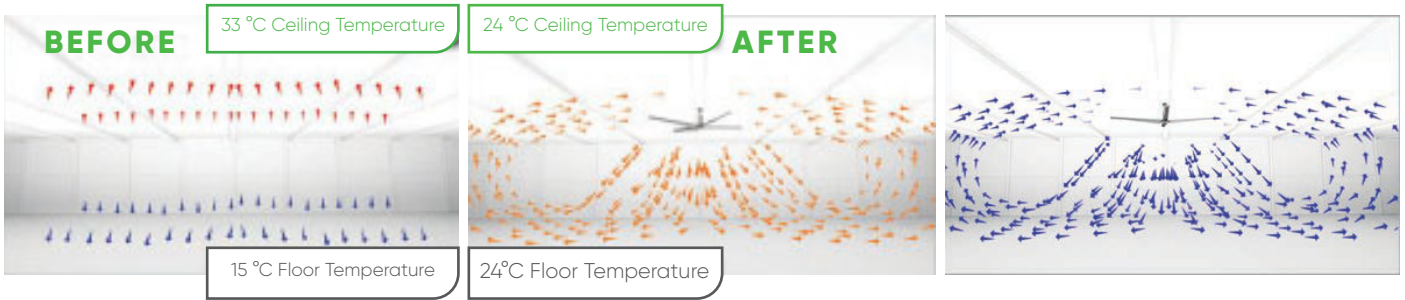
COST SAVINGS AT EVERY TURN

EXPERIENCE INCREASED COMFORT AND PRODUCTIVITY

HVLS fans gently move air at an optimised speed over people, so they stay cool, comfortable and productive in the summer. In the wintertime, the same fan keeps everyone comfortable by pushing the warm air from the ceiling down to the floor.

ENJOY GREATER ENERGY EFFICIENCY AND COST SAVINGS

Our large HVLS fan costs just pennies an hour to operate. By switching from highspeed fans to our fan, you can replace up to 20 traditional floor or wall mounted fans.



YEAR-ROUND ENERGY SAVINGS

A space without an HVLS fan will have uneven temperature zones that waste energy dollars. The hot air accumulates at the ceiling and the cold air will sink to the floor, making your HVAC system inefficient and increasing your energy consumption.

SAVE MONEY IN THE WINTER

An HVLS fan operating during winter will mix the warmer air at the ceiling with the cooler air at the floor to even the temperature throughout the space. This process is called "destratification."

The fan gathers the warm air and pushes it down in a conical shape until it reaches the floor. It then flows out horizontally in all directions, filling the space. This can reduce a facility's energy consumption by up to 30%.

SAVE MONEY IN THE SUMMER

Operating in the same space during the summer, an HVLS fan will circulate the air and make it more comfortable by decreasing the effective temperature up to 10°C. It's the ideal supplement to your air conditioning because it allows you to raise your settings as much as 3°C with little change in comfort. That means you'll reduce your summertime energy consumption by as much as 20%.

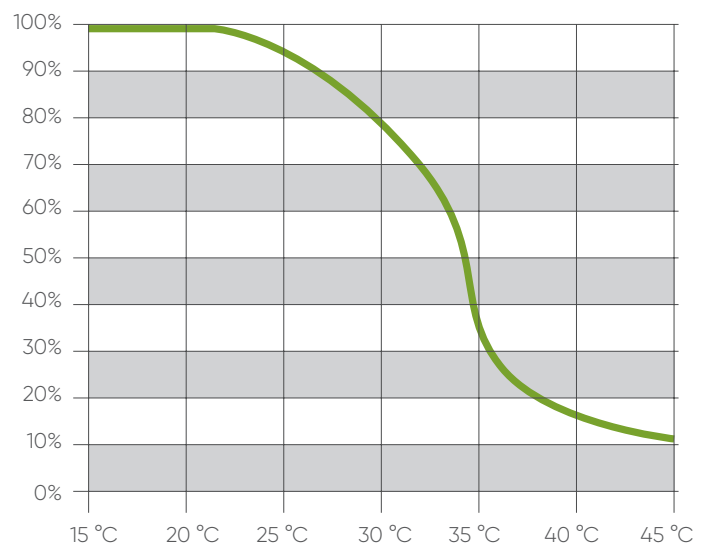
THE HVLS STANDARD

OUR FANS SET THE HVLS STANDARD THANKS TO FOUR KEY FEATURES.

PERFORMANCE

- Ulti Group fans help to improve productivity by reducing effective temperatures
- The upward tilt of the blades creates uniform airflow while the blade taper eliminates pockets of stagnant air under the centre of the fan for comfortable climate throughout the space

TEMPERATURE'S EFFECT ON PRODUCTIVITY

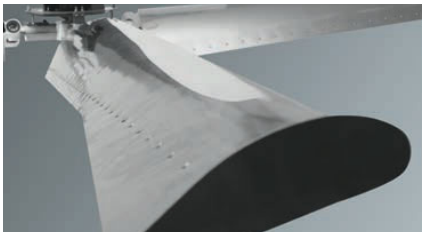


Source: NASA Report CR-1205-1 "A compendium of Human Responses to the Aerospace Environment"



CONSTRUCTION

- Each HVLS fan features an extruded, precision-milled aluminum hub and bolt
- Vibration-dampening material is incorporated to reduce stress to the hub by fifty to seventy-five percent
- The blade and hub are rotationally balanced for smooth, efficient performance
- Every fan is backed by our track record as an industrial manufacturer



DESIGN

- Exclusive Propell-Aire™ aluminum blade incorporates tilt, taper and twist to produce consistent airflow across the entire length of the blade
- Fans are available in 6-foot to 24-foot diameters
- Custom colors and logos are available



SAFETY

- Redundant safety features and stabilizing cables are present on all Ulti fan designs

GENERATE BIG SAVINGS IN BIG SPACES

HVLS fans move air up to 26 meters from the centre of the fan in all directions, which lowers energy costs and increases comfort in large facilities.

HVLS fans also run quieter than high speed-fans, reduce condensation on floors and products and improve overall indoor air quality. Consult an Ulti Group representative for complete details.



HVLS FANS PROVIDE COMFORT, EFFICIENCY AND MORE

- An airplane hangar keeps technicians cool, and prevents birds from nesting above the airplanes
- Food spoilage was eliminated by keeping the temperature consistent from floor to ceiling in a food distribution warehouse
- A metal recycling plant prevented rust from forming on expensive metals
- A flower exporter prevented product damage by eliminating cold zones within their facility
- A beverage distributor dissipated fumes in the company's drive-thru facility
- Reduced the number of evaporative coolers used by 50% during the summer in a Distribution



REVOLUTION®

The Fan That Started the Revolution

The Revolution® is the original HVLS fan, and today's standard for low-cost, high-efficiency climate control.

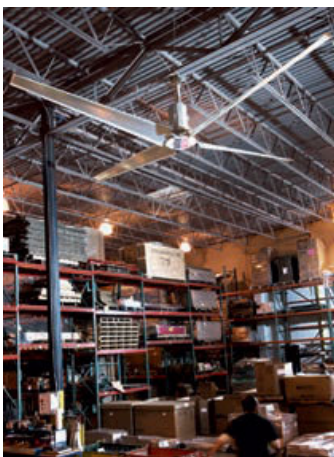
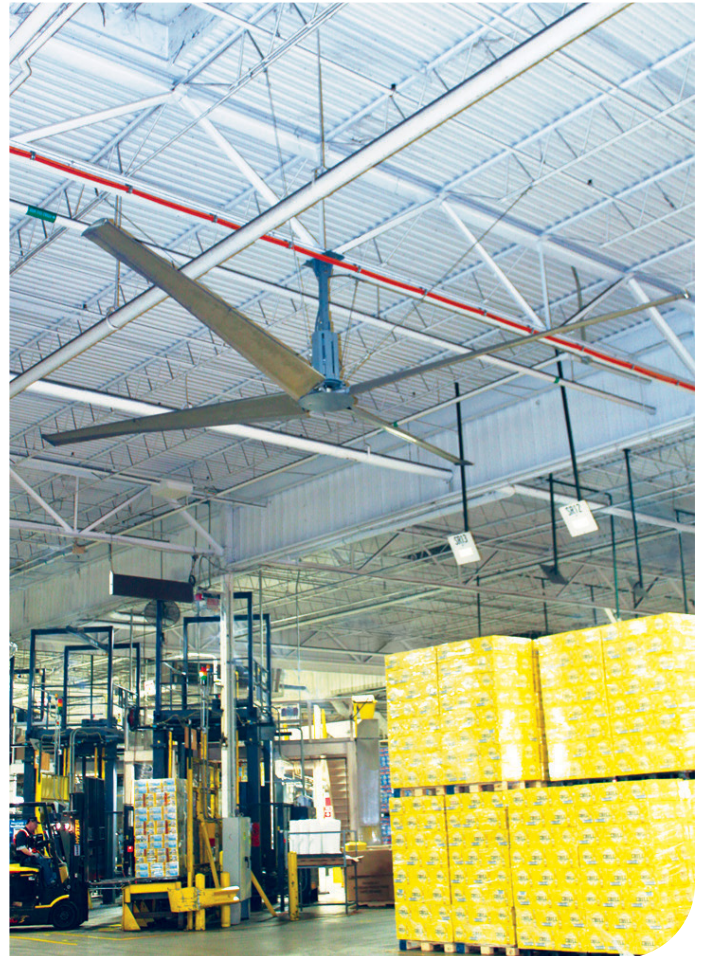
Featuring blade diameters up to 7.5 m, the Revolution is ideal for large facilities with high ceilings. Installing the Revolution is a smart, economical, green choice for a new building or a simple upgrade to any existing facility.

PERFORMANCE

- The high performance design covers 6,700 sq. metres, moving air up to 26m in all directions from the centre of the fan
- Exclusive Propell-Aire™ aluminum blade incorporates tilt, taper, and twist to produce consistent airflow across the entire length of the blade, eliminating pockets of stagnant air under the centre of the fan

SAFETY

- All fans feature a three-way motor-to-hub safety connection, as well as stabilizing cables, a beam clamp and motor housing
- A unique safety ring is provided for back-up security for the motor to hub connection. Each hub "blade arm" is connected to the safety ring



REVOLUTION®

75 SERIES 150 SERIES

Direct Drive Takes It Further

The Revolution® 150 Series and 75 Series Take HVLS Fans to a new level.



Available in up to 7.5m diameters, the Revolution® 150 Series and 75 Series offer the comfort and efficiency of our Revolution HVLS fan with the added benefits of direct drive motor technology.

- Motor is nearly silent operating between 38 to 42 dBA, depending on fan speed. Ideal for environments with sound concerns
- Direct drive design does not require oil
- Exclusive Propell-Aire™ aluminum blades, with standard mill finish, incorporate tilt, taper, and twist to produce consistent airflow across the entire length of the blade, eliminating pockets of stagnant air under the centre of the fan
- Covers 6,700 sq. m., moving air up to 26m in all directions from the centre of the fan
- The Revolution 150 Series fans are available in diameters of 5m, 6m and 7m
- The Revolution 75 Series fans are available in 2.5m, 3.5m, 5m, 6m and 7m diameters

Why HVLS Direct Drive Fans?



NO OIL. NO NOISE. REDUCED INSTALLATION COSTS

A direct drive motor is maintenance free and replaces the need for a gearbox.

Fans ship preassembled and factory configured for each application. Pre-wired fans and wireless controls allow cooling to begin almost immediately.

REVOLUTION® 25 SERIES

The Same Punch In A Smaller Package

The Revolution® 25 Series delivers comfort to smaller spaces and where aesthetics are important.

Available in 1.8, 2.5, 3 and 3.5m diameters, the Revolution 25 Series takes comfort to new highs and costs to new lows. It's form and function in perfect balance.

- Motor is nearly silent operating between 38 to 42 dBA, depending on fan speed. Ideal for environments with sound concerns
- Direct drive design does not require oil
- Polished aluminum blades with standard mill finish, feature our exclusive Vortex tip, combining style with performance
- Covers 5,300 sq. m., moving air up to 23 m. in all directions from the centre of the fan

ENHANCED CONTROLS

Manage up to 24 fans from the wireless touch screen control station. Standard Ethernet connectivity allows remote access from a PC or mobile device.



BUILT-IN SAFETY

All fans feature a hub to motor connection with redundant safety cable, stabilizing cables, and mounting bracket.



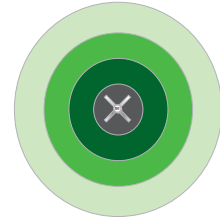
IDEAL LOCATIONS

- Food Manufacturing Facilities
- Pharmaceutical
- Processing Centres
- Health Clubs
- Schools/Universities
- Bars/Restaurants
- Retail
- Auto Dealers
- Religious Facilities
- Theaters
- Hospitals
- Hundreds of Other
- Applications

Use Industry Standards To Compare Fans

REVOLUTION®

AIR SPEED (KM PER HR)	7M		6M		5M		3.5M		2.5M	
	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED
ZONE 1	10.3	6.9	10.2	6.4	10	7	9.5	6	8	5
ZONE 2	6	4.5	6.3	3.7	5.6	3.4	3.9	2.9	3.9	2.3
ZONE 3	3.6	3.2	4	2.3	4.2	1	2.6	1.8	2.4	1.1
ZONE 4	2.7	2.6	3.2	1.3	2.9	.6	1.8	1.1	2.1	1.1



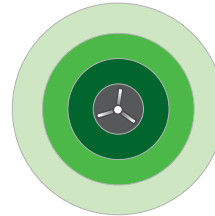
- ZONE 1**
7.5m from fan centre
- ZONE 2**
15m from fan centre
- ZONE 3**
23m from fan centre
- ZONE 4**
26m from fan centre

Direct Drive Fans

REVOLUTION® 150 SERIES

AIR SPEED (KM PER HR)	7M		6M		5M	
	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED
ZONE 1	10.3	5.1	10.3	5.8	10.3	5.5
ZONE 2	4	2.1	4	2.6	3.5	2.6
ZONE 3	1.3	.5	1.1	.6	1	.6
ZONE 4	.6	.5	.6	.5	.6	.5

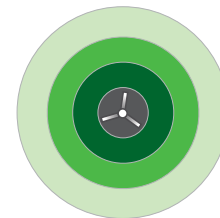
- When used for cooling people, choose a fan that moves air a minimum of 2 mph in the targeted zones
- The minimum air speed needed for destratification is 1/2 mph



- ZONE 1**
7.5m from fan centre
- ZONE 2**
15m from fan centre
- ZONE 3**
23m from fan centre
- ZONE 4**
26m from fan centre

REVOLUTION® 75 SERIES

AIR SPEED (KM PER HR)	7M		6M		5M		3.5M		2.5M	
	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED
ZONE 1	6.1	3.9	7.6	4.7	8	5.1	8.5	5	8.4	5.1
ZONE 2	3	2.1	4.2	1.9	4.7	2.1	3.7	2.4	3.5	2.1
ZONE 3	.6	.5	1.6	.6	2.4	.5	1.3	.5	.8	.5
ZONE 4	.6	.5	1.3	.6	1.6	.5	1	.5	.6	.5



- ZONE 1**
7.5m from fan centre
- ZONE 2**
15m from fan centre
- ZONE 3**
23m from fan centre
- ZONE 4**
26m from fan centre

REVOLUTION® 25 SERIES

AIR SPEED (KM PER HR)	3.5M		3M		2.5M		1.8M	
	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED	FULL SPEED	HALF SPEED
ZONE 1	6.1	3.9	6.3	4	6.1	4.3	3.7	2.1
ZONE 2	3	1.9	3	1.6	2.6	1.9	1.8	.3
ZONE 3	1.9	1.6	1.8	2.4	1.1	1.9	.5	.3



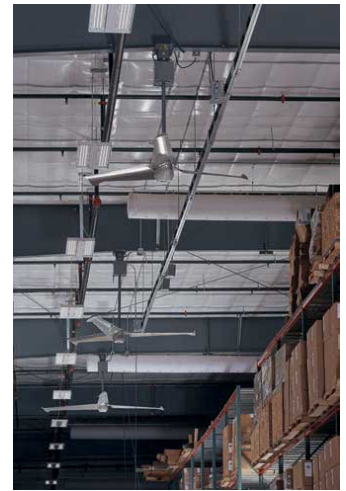
- ZONE 1**
7.5m from fan centre
- ZONE 2**
15m from fan centre
- ZONE 3**
23m from fan centre

REVOLUTION®



GEARED MOTOR		DIRECT DRIVE MOTOR
2.5m, 3.5m, 5m, 6m, 7m	Diameters	5m, 6m, 7m
Aluminum	Blades	Aluminum
Mill-finish standard, custom colors optional	Blade Finish	Mill-finish standard, custom colors optional
4	# of Blades	3
2.0 hp	Motor	2 hp (equivalent motor) for 5m diameter
230, 400, 460	Voltages	240, 277, 400, 460
1 or 3	Phase	1 or 3
75 – 1600	Watts	75 – 2000
50 or 60 Hz	Frequency	50 or 60 Hz
Up to 6,700 sq m, 25m from the fan's centre in all directions	Coverage	Up to 6,700 sq m, 25m from the fan's centre in all directions
45 to 63 dBA depending on fan speed	Decibels	Nearly silent. 38 to 42 dBA depending on fan speed
Up to 11 kmph at full speed Air	Speed	Up to 10 kmph at full speed
Variable speed, wireless touchscreen	Controls	Variable speed, wireless touchscreen
3m to 24m from finished floor to bottom of blade	Mounting Heights	3m to 24m from finished floor to bottom of blade
136kg	Max Weight	113 kg

REVOLUTION® 150 SERIES

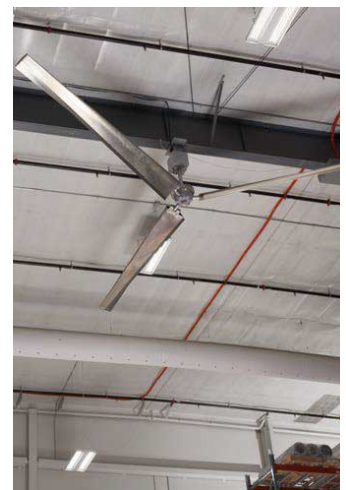


REVOLUTION® 75 SERIES



DIRECT DRIVE MOTOR		
2.5m, 3.5m, 5m, 6m, 7m	Diameters	1.8m, 2.5m, 3m, 3.5m
Aluminum	Blades	Aluminum
Mill-finish standard, custom colors optional	Blade Finish	Mill-finish standard, custom colors optional
3	# of Blades	3
1.75 hp for 2.5m diameter	Motor	.5 hp for 2.5m diameter
240, 277, 400, 460	Voltages	120, 240, 277
1 or 3	Phase	1 or 3
500 – 1625	Watts	50 – 600
50 or 60 Hz	Frequency	50 or 60 Hz
Up to 6,700 sq m, 25m from the fan's centre in all directions	Coverage	Up to 5,300 sq m, 23m from the fan's centre in all directions
Nearly silent. 38 to 42 dBA depending on fan speed	Decibels	Nearly silent. 38 to 42 dBA depending on fan speed
Up to 5.3 mph at full speed	Speed	Up to 3.9 mph at full speed
Variable speed, wireless touchscreen	Controls	Variable speed, wireless touchscreen
3m to 24m from finished floor to bottom of blade	Mounting Heights	3m to 9m from finished floor to bottom of blade
113 kg	Max Weight	82 kg

REVOLUTION® 25 SERIES



Control Up To 24 fans From A Single Location

THE WIRELESS FAN-COMMANDER® 2.0 IS A TOUCH SCREEN CONTROL STATION THAT ALLOWS FOR OPERATION OF UP TO 24 HVLS FANS FROM ONE LOCATION.



ADDITIONAL FEATURES INCLUDE:

- Single location, touch-screen control for up to 24 HVLS Fans within one facility. Comes standard for all ceiling-mounted HVLS fans.
- Four zones allow fans to be controlled simultaneously or independently
- Wireless communication and diagnostic monitoring between controller and fans
- For multiple fans, a wireless mesh network is created to pass the wireless signal from one fan to another, up to 400' between fans
- Customizable 7-day scheduling. Save energy by only operating fans when needed
- Standard Ethernet connectivity allows remote access to fan controls from a PC or mobile device
- View individual fan settings (On/Off + Speed)
- Password protection prevents unauthorised adjustment of settings
- Integrates with BMS using BACnet or discrete I/O
- Adjust fan speeds in 1% increments between 20% and 100%
- Standard Ethernet connectivity allows remote control access from a PC or mobile device
- Optional I/O Module allows integration to automation system
- Optional sensor adjusts fan operation based on ambient temperature



HVLS Fans For All Spaces



Industrial Warehouses



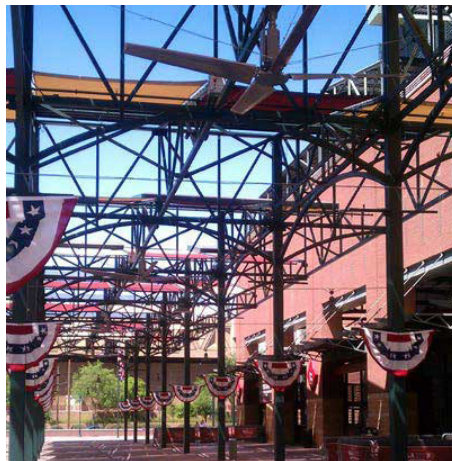
Agricultural Facilities



Airplane Hangars



Service Centres



Outdoor Public Spaces



Office Environments



Distribution Centres



Gymnasiums and Field Houses



Ultigroup

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