

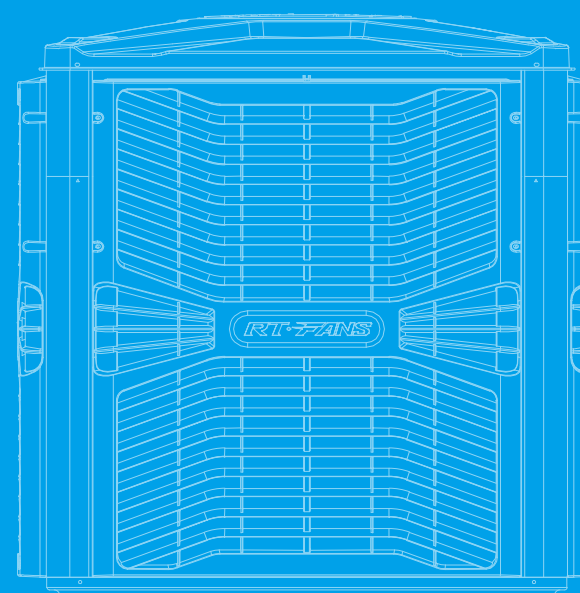


Save Energy, Stay Cool.

BIG SPACE

Ventilation & Cooling Solution Leader

COMBO HVLS Fan & Air Cooler



RTFANS reserves the right to make alterations to specifications, quantities, etc. for production or other reasons, subsequent to publication.

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HVLS Fan can be installed in
any **BIG SPACE** which is higher
than **4 meters**



Advantages



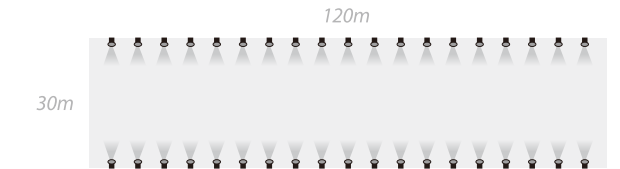
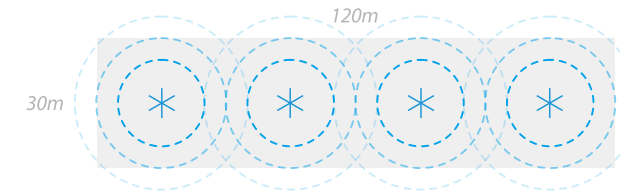
Compare with Wall Fan



HVLS Fan



Wall Fan



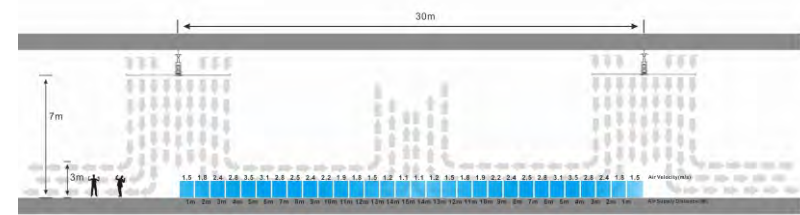
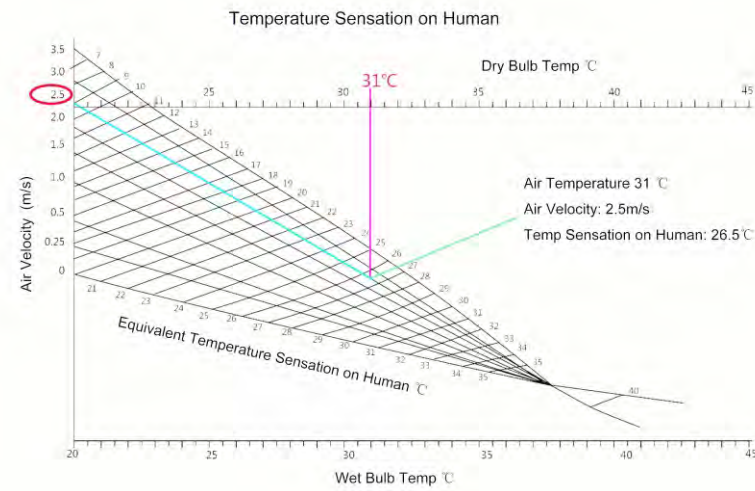
Category	HVLS Fan	Wall Fan
Area Coverage	Cover 1600 M ² per unit with 13500m ³ /min, full space covered with its 7.3m diameter fan blade.	Wind can only reach to the area in the front of the fan, can not work well if people move frequently .
Convenience	Installation on ceiling, simple and elegant,space saving	Mounted on the wall or standing on floor, consume lots of sapce
Comfortable Level	Tridimensional and natural breeze from all directions, with most comfortable wind speed 1-3m/s, with less noise.	High speed wind and noisy during operation,not comfortable
Maintenance	Almost zero maintenance under proper installation.	Need maintenance and clean frequently
Life span	8-10 years.	3-5 years.

	HVLS Fan	Wall Fan
Fan Diameter (m)	7.3	0.75
Power (kW)	1.5	0.36
Air Flow (m ³ /min)	13800	300
Effective Area (m ²)	1500	30
Factory Area	9000	9000
Total Units installed	6	300
Total Kw Installed	9	108
Consumption/Year @10hrs/day @26 days/mth	28080	336960

Functions-HVLS Fan

Wind Chill Effect

The air passes over human skin (Similar to a fan created effect) thereby causing a lower temperature sensation.



Natural Ventilation

Air exchange with outside fresh air rapidly through the window or roof ventilator, reducing the turbid air and providing people a comfortable environment

Dehumidification

HVLS fan can accelerate the air mixing of whole space which helps to distribute and absorb the odours, smoke and humidity very well, thus to improve the quality of air and provide a fresh, arid and safe environment

	RH Value					
Normal RH	30%	40%	50%	60%	70%	80%
RH with HVLS Fan Running	27%	35%	43%	50%	58%	65%
RH Decreased By No.	3%	5%	7%	10%	12%	15%
RH Decreased By %	10.00%	12.50%	14.00%	16.67%	17.14%	18.75%

Application

As the leading brand in HVLS fans, RTFANS has a complete product portfolio. With 3M to 7.3M in diameter, our products have a wide application range and remarkable effect, as well as proven superb quality.



Factory



Workshop



Manufacturing



Warehouse



Logistic Center



Airport



Metro Station



Waiting Room



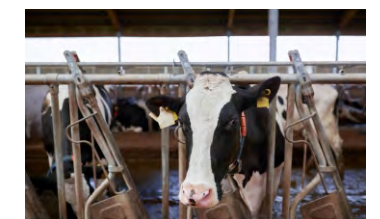
Garage



Gym



Restaurant

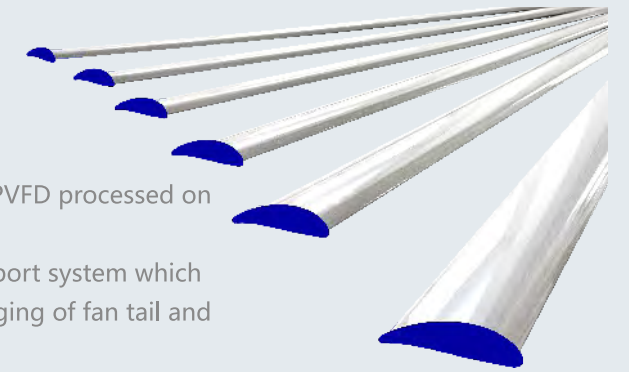


Dairy Farm

The Core Technology

Fan Blade

- High strength aircraft aluminum alloy: AA6063T6511, PVFD processed on surface.
- Patented airfoil design, and special reinforcing rib support system which increases the strength of fan blade and avoids the sagging of fan tail and fatigue loss of connecting components.
- Customized fan blade color



Driving Device

- PMSM (Permanent Magnet Synchronous Motor) technology with high efficiency and long service time.
- Compact and light design, no space limitation and easy to install.
- Direct drive without gear and lubrication oil replace, Essentially silent and maintenance free.



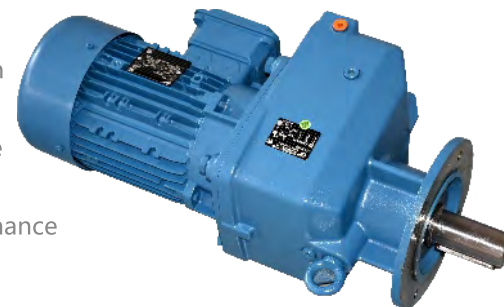
Hub

- Innovative double chassis design, more durable and steady
- Imported aeronautic aluminum alloy (Aa7075)
- Forged by 1000T machine with 570Mpa extension strength
- T6 heat processing



Driving Device

- German imported "NORD" coaxial bevel wheel decelerator with diameter of axle 40mm, to decrease radial force
- German imported "Simrit" double oil seal design, more durable and reliable
- "Shell" brand top class "Omala" S4 lubrication oil, Zero maintenance for over 20000 hours
- IE2 high efficient motor with imported "SKF-VL" bearing, save more 5~10% than IE1

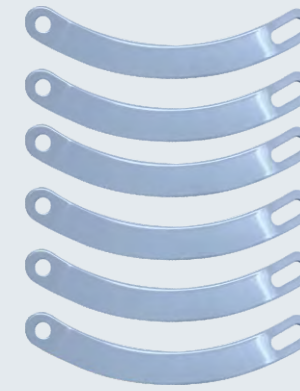


Controller

- Denmark imported "DANFOSS" VFD(Variable Frequency Driver) inverter
- IP55 motor protection grade and NEMA 1 standard control box
- "Schneider" brand electrical sets, with safety protection module inside which will interrupt the output automatically in case of some accidents.

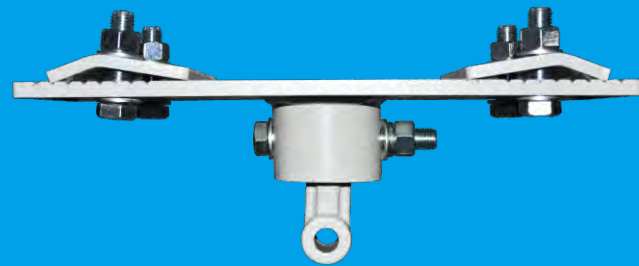


Safety Measures



Safety Lock

The safety lock structure to reconnect all the fan blades an integrated structure and prevent any single blade falling.

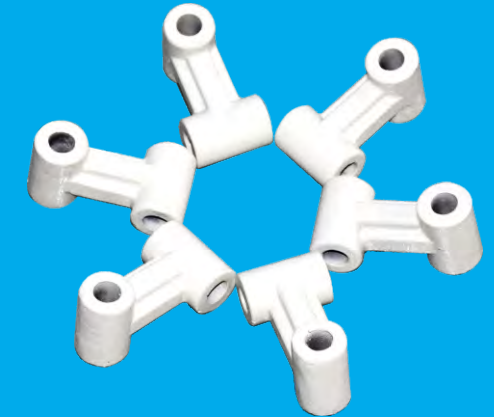


Installation Kit

- Particular no-skip flute design and locknut to prevent any accident of installation kit
- Adjustable standard clip device without the need to change the structure of building

Cardan Joint

- Unique cardan joint design, working as a human beings' joint, this allows the fan to find its own vertical position no matter what the slope of the building, and helps to decrease the shocking of fan during running



Fasteners

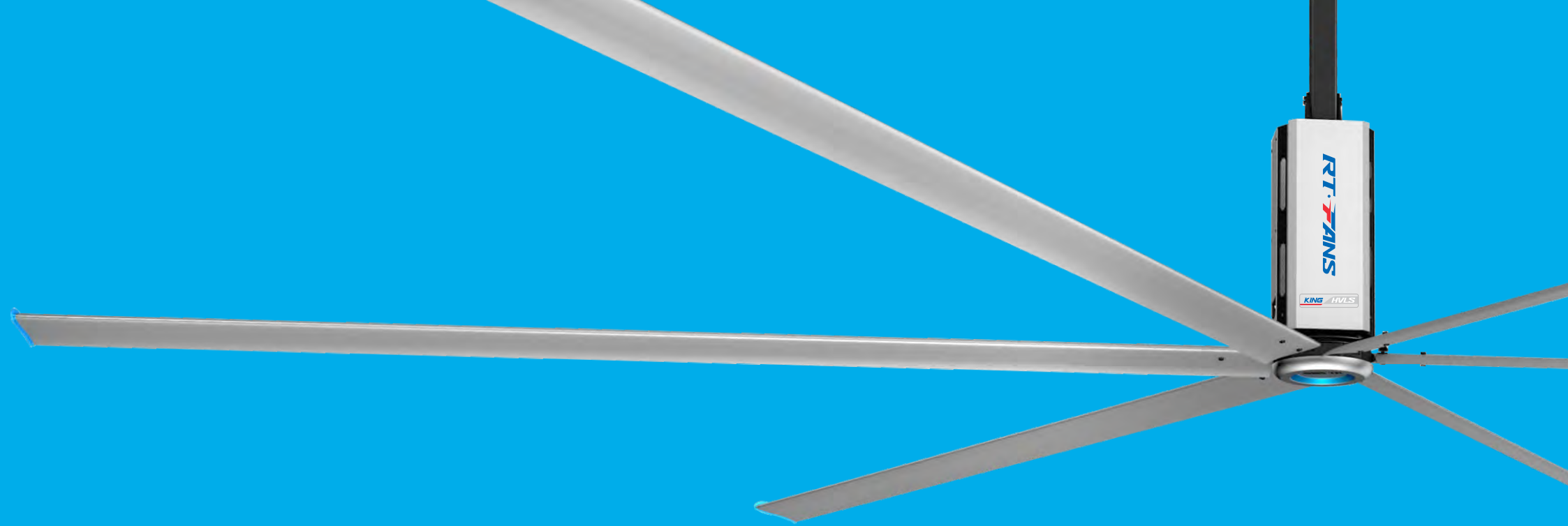
- German DIN933 Industrial Bolt and DIN125A locknut with high strength 8.8 grade, the practical stress it could endure is 10 times than normal



Certificate



Industrial Series



SN	Model	Fan Dia. (m/ft)	Motor Power (KW/HP)	RPM	Current (A) 380V/220V	Air Flow (m ³ /min)	Weight (KG)	Application Area (SQM.)	Noise (dBA)
1	RTF-CF-7E	7.3/24	1.5/2.0	20-53	3.35/5.8	13,800	125	1,800	43
2	RTF-CF-6E	6.1/20	1.5/2.0	20-58	3.35/5.8	12,000	115	1,380	43
3	RTF-CF-5E	5.5/18	1.5/2.0	20-63	3.35/5.8	10,500	110	1,050	43



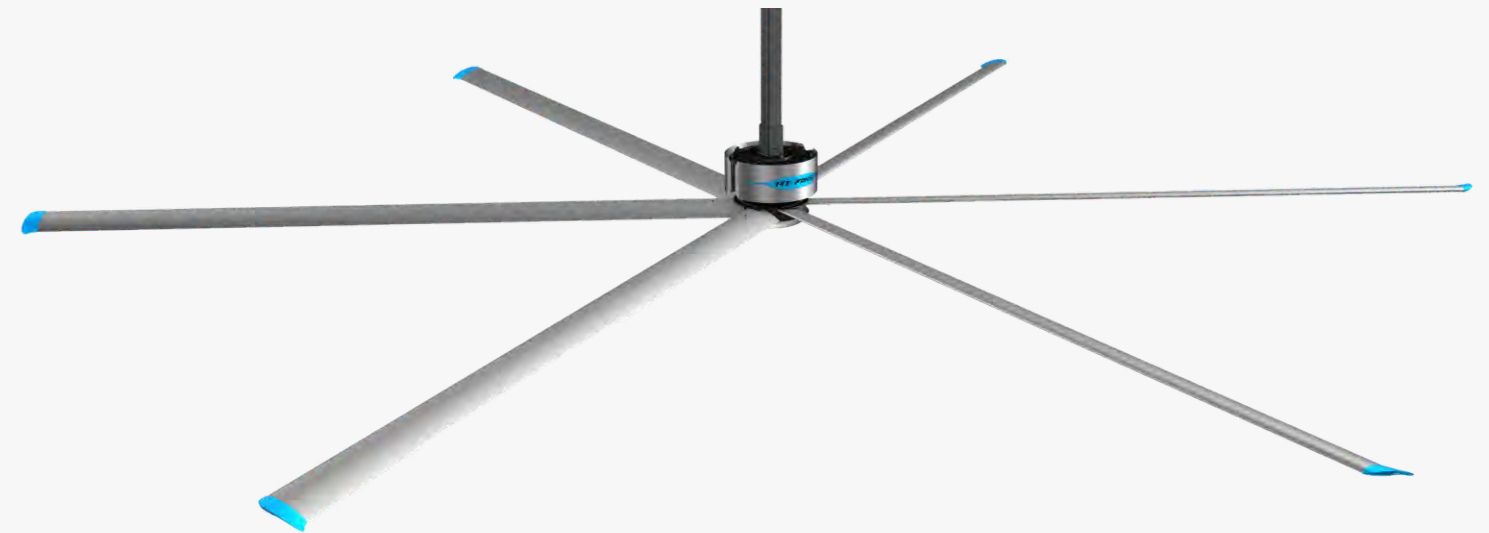
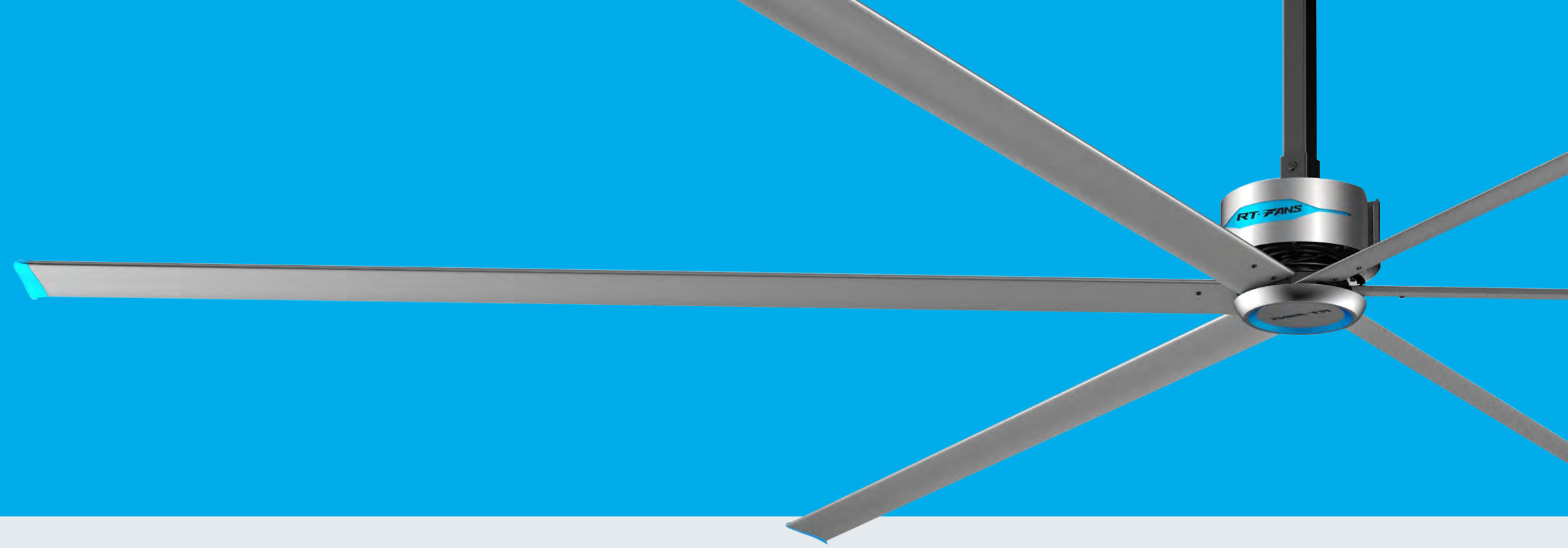
PMSM Series

Target Applications:

Industrial Area: Workshop / Logistics warehouse

Public Area: Car station / Hospital / School Auditorium / Church

Service Area: Exhibition center / 4S store / Hotel / Canteen / Supermarket / Gym



SN	Model	Fan Dia. (m/ft)	Motor Power (KW)	RPM	Current (A) 380V/220V	Air Flow (m ³ /min)	Weight (KG)	Application Area (SQM.)	Noise (dBA)
1	RTF-DF-7E	7.3/24	1.2	20-53	2.5/4.3	13,800	115	1,800	39
2	RTF-DF-6E	6.1/20	0.85	20-58	1.4/2.4	12,000	105	1,380	39
3	RTF-DF-5E	5.5/18	0.65	20-63	1.6/2.7	10,500	100	1,050	39



Commercial Series



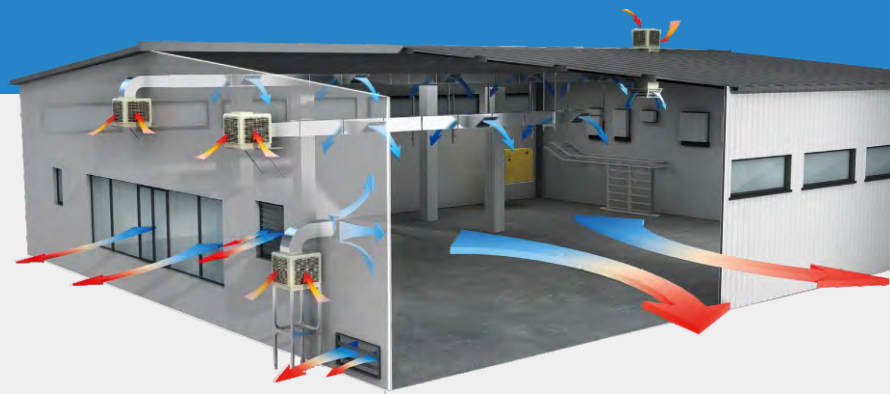
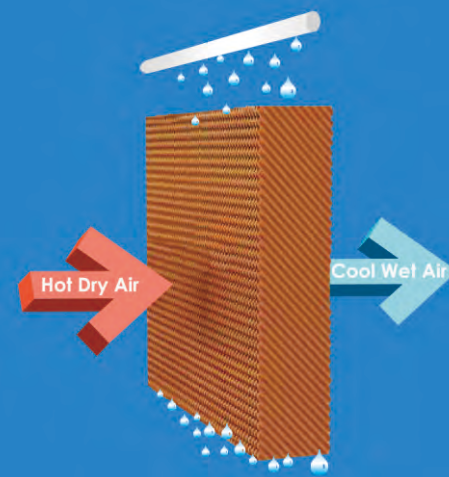
SN	Model	Fan Dia. (m/ft)	Motor Power (KW/HP)	RPM	Current (A) 380V/220V	Air Flow (m ³ /min)	Weight (KG)	Application Area (SQM.)	Noise (dBA)
1	RTF-SF-4E	4.0/13	0.55	40-102	1.52/2.63	8,800	50	450	40
2	RTF-SF-3E	3.0/10	0.55	40-102	1.52/2.63	6,500	45	350	40

VENTILATION COOLING SOLUTION – Evaporative Air Cooler



Cooling Principle

As schematically shown, when the cooler is working, water is pumped from the tank to the water distributor, and distributed evenly to the evaporative cooling pads, then go back to the tank. Meanwhile, the outside hot air is drawn through the wetted cooling pads and filtered and reduced in temperature before delivering to the user space.



How does evaporative air cooler work?

Filtered and cooled by an evaporative air cooler, the outdoor fresh air is continuously sent into the indoor space through the air duct and air supply outlets. With the continuous supply of fresh air, the indoor space is in a positive pressure condition, thus the original hot air containing odor and dust will be emitted out of the room, resulting in a cool, ventilated, clean and comfortable environment. Suitable exhaust area and effective exhaust are essential for satisfactory performance of any evaporative air cooling system

Cooling Effect Data Sheet

Amb. Temp	Relative Humidity							
	20%	30%	40%	50%	60%	70%	80%	90%
20	12	13	14.5	15.5	16.5	17.5	18.5	19.2
25	16	17	18.5	20	21	22	23	24
30	19.5	21	22.5	24	25	26	28	28.9
35	23	25	26.5	28.5	29	30	32.5	33.7
40	25.6	28.1	30.4	32.3	33.9	This zone is not applicable as in reality when the temperature is relatively high, RH is predominantly lower than the supply air temperature		
45	29.2	32	34.4					
50	32.7	35.8						

With the wind-chill effect, the effective temperature for thermal human comfort is 1~2°C lower than the Supply Air Temperature

Power consumption comparison between three cooling alternatives.

Cooling Equipment	Type	Evaporative Air Cooler	Air Conditioning	Ventilation Fan
Capacity		18000 m ³ /hr	400000 BTU/hr	40000 m ³ /hr
	kw	1.1 kw	54 kw	1.1kw
Workspace	Area(m ²)	1000	1000	1000
	Effective Height (m)	4	4	4
	Air Change per hour	30	Recirculating	30
Electrical Energy consumed	Total Units Installed	10	2	8
	Total KW installed (kw)	11	108	8.8
	Electrical Units Consumed @10hrs/days @26day/mth	34320 kwh per year	336960 kwh per year	27456 kwh per year
	Cost comparison with reference to AC	10.1%	100%	8%
Effects of various cooling methods		Pushes out hot, taste air and ventilates with Cool Clean & Fresh Air.	Circulates air inside only It is ineffective in heat generating space	Only moves ambient air but offers no relief as temperature rises.

Remark: Figures base on 1000m² workspace area

Parameter

Model: RTF-20 & RTF-25 Series

RTF-20& 25high-end series are professional strong plastic structured models with axial fan, which needs to be installed with air ducting system. Fixed installation model is appropriate to be installed on solid places such as outside wall, grounds, concrete or Zinc-steel structured roof.



Target Applications:

Workshops

Factories

Supermarket

School & Church

Entertainment Centers

Model		RTF-20A	RTF-20B	RTF-20C	RTF-25A	RTF-25C
Discharge Type		Bottom	Side	Top	Bottom	Top
Fan Type		Axial	Axial	Axial	Axial	Axial
Max airflow	m ³ /h	20000	20000	20000	25000	25000
Voltage/Hertz/Phase	V/Hz/Ph	220-240V/50Hz/1P	220-240V/50Hz/1P	220-240V/50Hz/1P	220-240V/50Hz/1P	220-240V/50Hz/1P
		380-415V/50Hz/3P	380-415V/50Hz/3P	380-415V/50Hz/3P	380-415V/50Hz/3P	380-415V/50Hz/3P
Power consumption	KW	1.1	1.1	1.1	1.5	1.5
Evaporative Capacity	L/h	65	65	65	75	75
Sound Pressure Level @1m	dB(A)	≤68	≤68	≤68	≤71	≤71
Water Tank Capacity	L	25L	35L	35L	25L	35L
Air outlet Dimensions	mm	670*670	670*670	730*730	670*670	730*730
Unit size	mm	1120*1120*1030	1120*1120*1030	1120*1120*1075	1120*1120*1250	1120*1120*1300
Net Weight	Kg	60	57	60	79	79

Parameter

Model: RTF-30 Series RTF-25BL/35BL/45BL/60BL Centrifugal

RTF-30 Series are popular stainless steel structured models with axial fan. RTF-25BL/35BL/45BL/60BL are popular stainless steel structured models with centrifugal fan. Which need to be installed with air ducting system. Fixed installation model is appropriate to be installed solid places such as outside wall, grounds, concrete or Zinc-steel structured roof



Target Applications:

Workshops

Factories

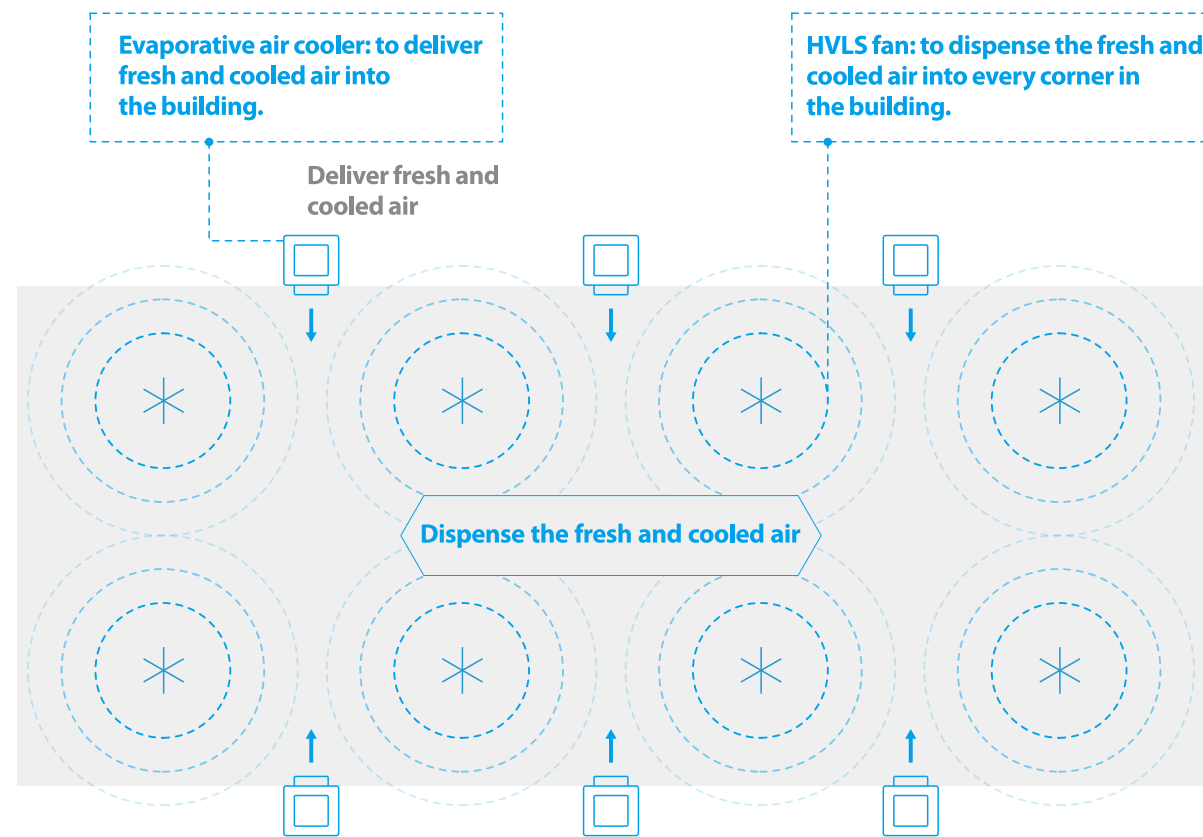
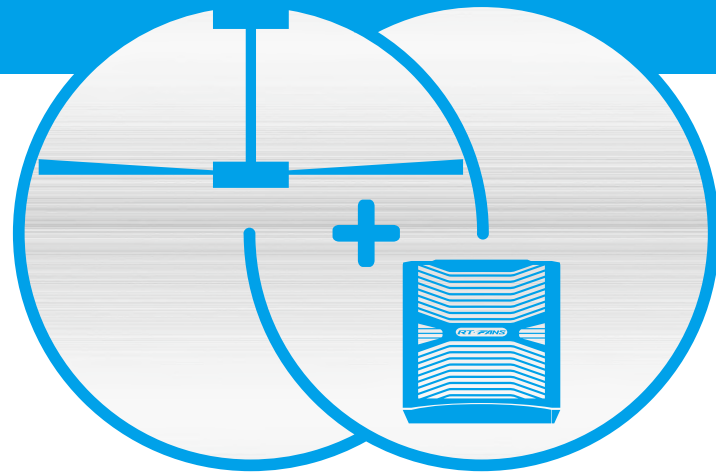
Supermarket

School & Church

Entertainment Centers

Model		RTF-30A	RTF-30B	RTF-25BL	RTF-35BL	RTF-45/60BL
Discharge Type		Bottom	Side	Side	Side	Side
Fan Type		Axial	Axial	Centrifugal	Centrifugal	Centrifugal
Max airflow	m ³ /h	30000	30000m	25000	35000	45000/60000
Voltage/Hertz/Phase	V/Hz/Ph	380-415V/50Hz/3P	380-415V/50Hz/3P	380-415V/50Hz/3P	380-415V/50Hz/3P	380-415V/50Hz/3P
Power consumption	Kw	2.2	2.2	5.5	7.5	11/15.5
Evaporative Capacity	L/h	112	112	117	220	260/380
Sound Pressure Level @1m	dB(A)	78	78	82	84	86/89
Water Tank Capacity	L	65	65	65	80	100
Air outlet Dimensions	mm	800*800	800*800	620*570	782*700	862*770/926*834
Unit size	mm	1470*1470*1350	1470*1470*1350	1470*1490*1400	1770*1770*1440	2090*1970*1700
Net Weight	Kg	170	180	300	450	585/650

VALUED VENTILATION COOLING SOLUTION -Fan & Cooler Combo



Big Space Ventilation & Cooling Expert ---About Us

With 18 years' experience in the market, Kool Air International Co., Ltd, has become an industry leader in evaporative cooling technology and also an expert in big space ventilation and cooling. Our brand "RTFANS" is the most popular in HVLS fan and Evaporative air cooling field, Kool Air aims to be your perfect solution provider on air processing with full range of evaporative cooling and ventilation products including evaporative air coolers, cooling pads, HVLS fans, for household, commercial, industrial as well as agricultural use.

Kool Air aim to create a green and eco-friendly concept ventilation and cooling as global warming is a major concern to the world at current. Its products have resulted in energy efficiency thus reducing cost significantly for commercial and industrial professionals to optimize usage of energy in an intelligent manner. By adopting this concept, Kool Air will continuously pursue research and development programs to manufacture quality and competitive products.

Today, more than ever, Kool Air can be your natural choice on air processing field, as it can be used wherever we go , it is related to our daily life.



Case Study



Case Study



Valued Customer

