

ENVIROFAN . . . the quality choice . . . ENVIROFAN

HEATING

Lower Your Thermostat in Winter . . .

The effectiveness of an Envirofan system for winter heating is based on the simple concept of heat stratification. That is, within a closed space heavier cold air drops to floor level while lighter warm air rises to the ceiling. As a result the air temperature can increase about 3/4 degree per foot from floor level to the ceiling. This difference can be even greater when there is production process heat or bright lighting in the room.

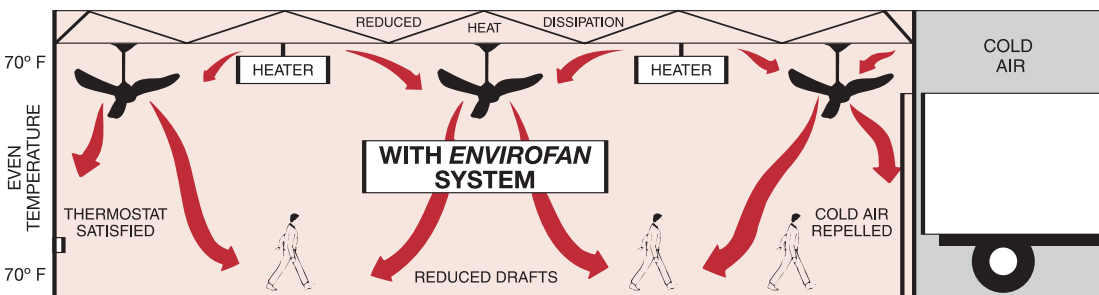
Consider a room with a 15' ceiling height and no fans. The temperature might be set at 68 degrees at thermostat level (5' above the floor), but would be only 64 degrees at floor level and 76 degrees at the ceiling. The people and floor levels would be cold and drafty and the ceiling level would be hot and stuffy. The thermostat would then be turned up higher than 68 degrees to maintain actual 68 degree comfort at people level. It would keep asking for more heat, even though the ceiling was already filled with wasted inaccessible heat.

Envirofans equalize room temperature by pushing down and mixing wasted ceiling heat with the cooler air below. The thermostat stays satisfied for longer periods of time and can be set at the actual desired temperature level. People will be more comfortable and productive. In high ceiling areas like warehouses, thermostats can be cut 5-10 degrees after installing an Envirofan system, yet floor temperatures will still increase.

Best of all, statistics from the utility industry show that the resulting savings in heating costs can be as high as 30%. For every degree the ceiling temperature is lowered by destratifying heat with Envirofans there can be a 3% savings in energy costs. With energy savings like that an Envirofan system can pay for itself in the first year!

It takes a high quality, powerful industrial motor and efficient blade design to create enough air movement for results like these . . . it takes ENVIROFAN!

HOW THE ENVIROFAN SYSTEM WORKS IN WINTER



Ceiling Heat is Circulated Down to Floor Level

- Heat stratification is stopped and wasted ceiling heat is utilized.
- Heat loss through the roof is greatly reduced.
- Temperature is equalized from floor to ceiling.
- The thermostat stays satisfied longer so heaters run less frequently.
- The life of heating equipment is extended.
- An "air curtain" is created by a bank of fans at shipping doors. Cold air is repelled.
- At floor level cold drafts and cold pockets are eliminated.
- People are more comfortable and productive.
- Energy costs can be cut by up to 30%.

An Envirofan System Will Save up to 30% of Your Heating and 50% of Your Cooling Costs.



PLANNING YOUR CEILING FAN SYSTEM

1. Refer to the specification charts to determine Envirofan model and area coverage.
2. Multiply building length times width to get square footage.
3. To create an energy efficient "air curtain" at shipping doors, plan one fan 15 to 20 feet in front of each shipping door and allow only about half the recommended area coverage for these fans.
4. Subtract square footage of shipping door fans from the total and divide the balance by the area coverage of the Envirofan model to determine the number of fans for your system.
5. EXAMPLE: Using Model 160F-7 (area coverage 2,100 sq. ft.)



1. 90' x 390' = 35,100 sq. ft.
2. 4 shipping doors. 35,100 sq. ft. less 4,800 sq. ft. for door area = 30,300 sq.ft.
3. 30,300 sq. ft. divided by 2,100 sq. ft. of coverage per fan = 14.4 fans.
4. Hang 4 fans over shipping doors.
5. Using the grid system, hang 14 fans in the remainder of the area. One fan is positioned in the center of each square.

6. Charts show figures for maximum speed. Your application may require lower speeds and/or less area coverage, depending on fan height, cooling or heating function and use of area below fans.
7. Distance from the floor, fan diameter, and the speed at which a fan will run, all affect the effective area coverage.
8. For best results hang fans over aisles and traffic lanes in storage or warehouse areas.
9. Locate fans over heat generating equipment such as furnaces, ovens, generators or welding stations. This keeps the equipment heat circulated back to floor level.
10. For best results call your Envirofan representative for help with your system plan.

COOLING

Raise Your Thermostat in Summer . . .

In summer Envirofans provide substantial savings in cooling costs by adding evaporative cooling, air circulation, and a uniformly comfortable temperature to the work environment.

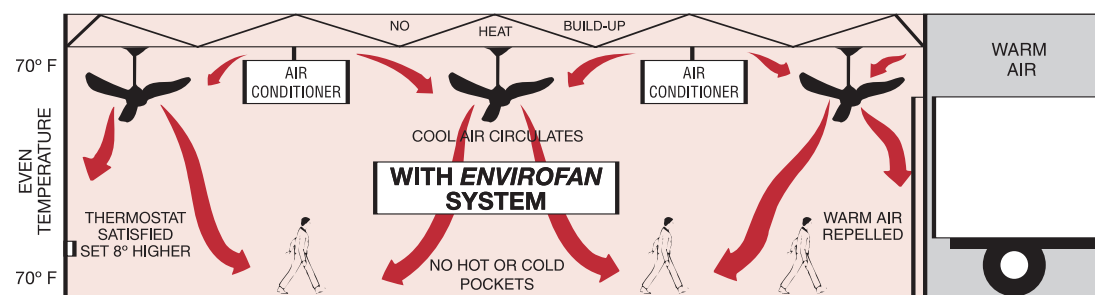
When Envirofans are used with air conditioning, tests from ASHRAE have shown that a thermostat setting can be raised 8 degrees with no loss in employee comfort if ceiling fans are running. Gentle breezes created by Envirofans provide evaporative cooling that lowers skin temperature up to 7 degrees. This increased air velocity provides an effective temperature of 72 degrees when the thermostat is set at 80 degrees. Every degree you raise your thermostat in summer can save you 3% - 5% in air conditioning costs.

Air circulation from Envirofans also eliminates cold areas and dead air pockets. Cooled air is continuously re-used. Thermostats stay satisfied longer, reducing the air conditioning system's load and operating expense. Envirofans running continuously also prevent a buildup of ceiling heat so that air conditioning thermostats will shut off sooner during the cooler times of day and night. Total energy savings of 50% can be achieved!

In all seasons Envirofan's vertical air circulation speeds evaporation of moisture and helps prevent mold and mildew. It also helps prevent condensation that results from day and night temperature differences, especially if heat is stratified at the roof. This homogenized drier airflow results in uniform temperatures. It helps improve the shelf life of inventory and reduce the spoilage of perishables.

Powerful, all metal, heavy-duty Envirofans are designed to excel for both summer and winter operation. Four complete lines of high quality industrial and commercial ceiling fans can efficiently achieve the air patterns necessary for any application to have energy savings up to 30% in winter and 50% in summer.

HOW THE ENVIROFAN SYSTEM WORKS IN SUMMER



Air Movement Creates Evaporative Cooling

- Envirofan's vertical breeze can lower skin temperature as much as 7 degrees by evaporative cooling.
- Air movement eliminates hot and cold pockets. Uniformly cool air is more comfortable.
- When used with air conditioning, thermostats can be set 8 degrees higher with no loss in comfort.
- At shipping doors the vertical air curtain helps repel warm air, dust and bugs.
- Air conditioning system's load and operating expense is reduced.
- The life of air conditioning equipment is extended.
- Energy costs can be cut up to 50%.

SPECIFICATIONS

PLATINUM LINE – Severe Service Fans (Moisture, Dust, Heat, Corrosion Resistant) Five-Year Warranty*

MODEL	SIZE	DESCRIPTION	CFM	AREA	VELOCITY	VOLTS	AMPS	WATTS	R.P.M.	WEIGHT
190A-7	60"	White/3 Prong Plug/10" downrod	43,500	2,400 sq. ft.	740 ft/m	120 v	0.71	86	330	24.0 lb.
190A-7-18	60"	White/3 Prong Plug/18" downrod	43,500	2,400 sq. ft.	740 ft/m	120 v	0.71	86	330	24.0 lb.

GOLD LINE - Extra Heavy-Duty Industrial Fans Five-Year Warranty

MODEL	SIZE	DESCRIPTION	CFM	AREA	VELOCITY	VOLTS	AMPS	WATTS	R.P.M.	WEIGHT
160F-7	56"	White or Black/3 Prong Plug	34,500	2,100 sq. ft.	650 ft/m	120 v	0.64	80	350	24.0 lb.
160F-7 277V	56"	White/Twist Lock Plug/277 Volts	34,500	2,100 sq. ft.	650 ft/m	277 v	0.44	75	350	24.0 lb.
160C-7	56"	Reversing/White/Wire leads/Straight blades	34,500	2,100 sq. ft.	650 ft/m	120 v	0.64	80	350	24.0 lb.
136F-7	36"	White/Wire leads	12,000	800 sq. ft.	650 ft/m	120 v	0.70	55	400	17.0 lb.
136F-7 277V	36"	White/Wire leads/277 Volts	12,000	800 sq. ft.	650 ft/m	277 v	0.30	35	400	17.0 lb.

SILVER LINE - Heavy-Duty Commercial Fans Three-Year Warranty

MODEL	SIZE	DESCRIPTION	CFM	AREA	VELOCITY	VOLTS	AMPS	WATTS	R.P.M.	WEIGHT
60F-7	56"	White/3 Prong Plug	27,500	1,800 sq. ft.	600 ft/m	120 v	0.61	76	320	18.0 lb.
60F-9	56"	White or Brown/Wire leads	27,500	1,800 sq. ft.	600 ft/m	120 v	0.61	76	320	18.0 lb.
60F-9 277V	56"	White/Wire leads/277 Volts	27,500	1,800 sq. ft.	600 ft/m	277 v	0.44	95	320	18.0 lb.
60C-9	56"	Reversing/White/Wire leads/Straight blades	27,500	1,800 sq. ft.	600 ft/m	120 v	0.61	76	320	18.0 lb.
48F-9	48"	White/Wire leads	21,500	1,600 sq. ft.	600 ft/m	120 v	0.61	76	320	16.0 lb.
48C-9	48"	Reversing/White/Wire leads/Straight blades	21,500	1,600 sq. ft.	600 ft/m	120 v	0.61	76	320	16.0 lb.

BRONZE LINE - Light Commercial Fans One-Year Warranty

MODEL	SIZE	DESCRIPTION	CFM	AREA	VELOCITY	VOLTS	AMPS	WATTS	R.P.M.	WEIGHT
FP-56R	56"	White/Wire leads	22,000	1,700 sq. ft.	600 ft/m	120 v	0.70	55	300	16.0 lb.

FAN CONTROLS - More Models Available

MODEL	AMPS	DESCRIPTION
100F	2.5	2 Fan Control
105F	6	5 Fan Control
150F	8	8 Fan Control
200F	12	12 Fan Control
215F	15	15 Fan Control
108C	15	15 Fan Reversing Switch
277V-5	5	10 Fan Control (277V)

Note:

- Area coverage is measured from 20' height.
- Fan Blades should not be mounted lower than 10' above the floor.
- Specifications are subject to change without notice due to product change or improvement.
- When installing an Envirofan with a Protecto-Guard the J-Bolt hardware provided must be used. The J-Bolt must be fastened to the building structure which should be capable of supporting the combined weight of the fan and guard (75 lbs.).

UL LISTED

Only Envirofan offers all these features in every fan. Choose from four sizes and a design for every need!

- All metal construction. No plastic.
- Completely assembled (except blades).
- Energy efficient. .71 amps or less.
- Sealed thermo-protected motor.
- Permanent, sealed chrome ball bearings.
- Secondary support cable (except Platinum fans).
- Longer downrod and sloped ceiling adapter available.
- Dual mount. Both fan box and J-Bolt hardware included.



* Platinum Line Fans offer 3 year warranty for agricultural applications. All other fans not guaranteed for agricultural applications.

ENVIROFAN - THE CEILING FAN SPECIALISTS. FOUR COMPLETE LINES OF CEILING FANS.