

WINTER ENERGY SAVINGS BY HEAT DESTRATIFICATION

Everyone knows that hot air rises. Buildings with ceilings higher than 8 feet have a significant amount of stored heat at the ceiling that will transfer through the roof and be lost and wasted. The higher the ceiling, the greater amount of energy loss potential from the stored heat at the top of the building. This heat/energy loss can be significantly reduced resulting in lower energy bills by the use of Canarm Ceiling Fans.

There can be as much as 25 degrees Fahrenheit difference between floor and ceiling. Heaters will be working when the floor level temperature is 65°F and there is already 80 degree air at the ceiling ready to be recycled. (See **Figure 1**). The use of Canarm Ceiling Fans in this situation will move this hot air down from the ceiling to create a more even air temperature throughout the building resulting in a more comfortable working environment and potentially reducing your energy bills by as much as 30%. (See **Figure 2**)

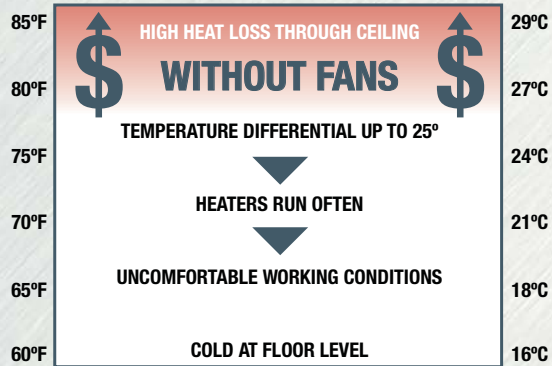


Figure 1

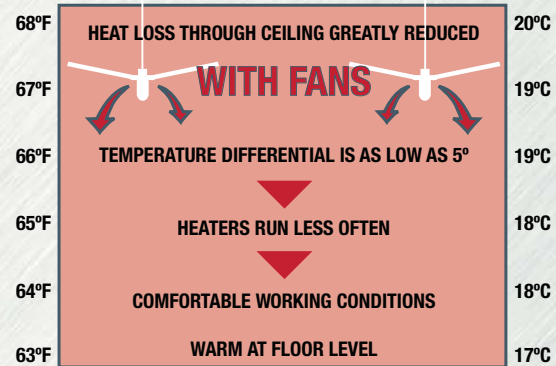


Figure 2

SHIPPING DOOR AIR CURTAIN

Cold air entering a building and heat loss from shipping doors is a significant waste of energy in cold weather. A Canarm ceiling fan can be positioned in front of the door pushing air down and out. When the shipping door is opened, the fan helps hold back cold air and the warm air is kept in.

HOW TO CHOOSE A FAN

Ceiling fan choice and layout is based on ceiling height and the floor area of the building. As the height of the ceiling increases, larger and more powerful fans are required to achieve destratification.

The floor air coverage of a fan will be greater the higher the ceiling of the building. This is because of the natural cone shape of the air pattern produced by the fan. *HPWP models have increased floor area coverage because of more powerful motors.

Canarm provides two types of fans:

- The traditional ceiling fan, low cost, good performance, great for dry locations.
- The HPWP high performance, water resistant models - great for more demanding applications with high moisture or greater air velocity requirements. Use the chart to help choose the correct fan size/type and quantity to suit your requirements.

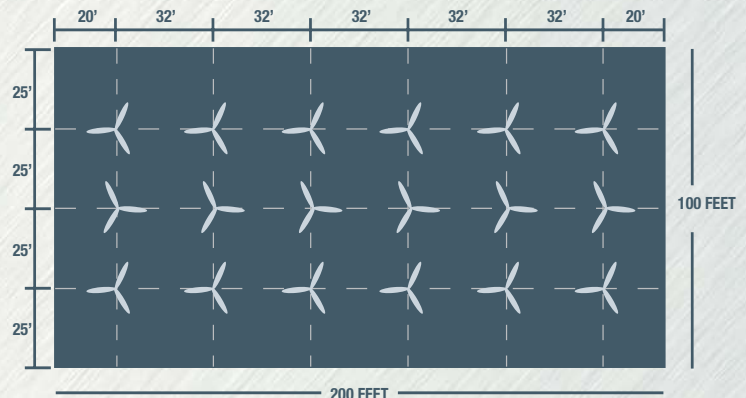
Example:

What size and how many fans would be required for a building that is 100 feet wide x 200 feet long and has as ceiling height of 16 feet? A typical layout for a building is illustrated.

- By using the chart, we see that a ceiling height of 16 feet requires a CP56 (56" fan).
- Floor Area of the building = 100 feet wide x 200 feet long = 20,000 square feet.
- From the chart, we know that the Fan Floor Area Coverage of the CP56 model is 1100 square feet at a 16 foot ceiling height.
- Therefore, the number of fans required = Floor Area of building / Fan Floor Area Coverage 20,000 square feet / 1100 square feet = 18 fans.

Note: An additional fan should be used about 10 feet in front of each shipping door to act as an air curtain and reduce heating bills in the winter.

CEILING HEIGHT (FT.)	SUGGESTED FAN	FAN FLOOR AREA COVERAGE (SQ. FT.)	
		TRADITIONAL	HPWP
10-11	CP36	600	N/A
12-13	CP48	800	950
14-15		950	1150
16-17	CP56	1100	1400
18-19		1300	1600
20-21		1450	1800
22-25	CP60	N/A	2250
26-30		N/A	2700



CP - COMMERCIAL CEILING FANS

Ideally suited for circulating air in Industrial and Commercial Applications.
Canarm's "CP" Fans help save energy year round.



FEATURES

- Available with 36", 48" and 56" blade sweeps.
- Variable speed motor (all motors are impedance protected, PSC type variable speed with permanently lubricated ball bearing motors).
- When used with our MC series speed controls the speed range is infinite.
- Painted steel blades with curved ends deliver maximum airflow over wide areas.
- All models are reversible (exception: CP56 c/w cord & plug is downdraft only).
- Reversible motor provides both winter destratification and summer time cooling.

MODEL NUMBER	COLOR	AIRFLOW	FAN SIZE	MAX RPM	AIR VELOCITY 5' FROM FAN	AIR DELIVERY @ FLOOR	AMPS HIGH	LOW AMPS	HIGH WATTS	LOW WATTS	DOWNROD LENGTH	SHIPPING WEIGHT (LBS.)
CP36	White	Up/Downdraft	36"	380	750 ft/min	7,100 cfm	0.7	0.25	76	28	16"	12
CP48	White	Up/Downdraft	48"	320	700 ft/min	13,000 cfm	0.8	0.35	86	36	16"	16
CP56 F&R	White	Up/Downdraft	56"	310	660 ft/min	20,500 cfm	0.9	0.4	97	40	16"	17
CP56S (c/w 36" downrod)	White	Up/Downdraft	56"	310	660 ft/min	20,500 cfm	0.9	0.4	97	40	36"	19
CP56 C&P c/w cord & plug, non-reversible	White	Downdraft	56"	310	660 ft/min	20,500 cfm	0.9	0.4	97	40	16"	18
CP56 BR	Brown	Up/Downdraft	56"	310	660 ft/min	20,500 cfm	0.9	0.4	97	40	16"	17
CP56 BK	Black	Up/Downdraft	56"	310	660 ft/min	20,500 cfm	0.9	0.4	97	40	16"	18

HPWP - HIGH PERFORMANCE CEILING FANS

Engineered and designed for general applications where above average area coverage and cooling velocity are required.



FEATURES

- Reversible motor for both winter destratification and summer time cooling (exception: CP56HPWPC is downdraft only).
- Fans are sealed and suitable for high moisture applications.
- All high performance fans are weather resistant.
- Straight blades and heavy duty motors for higher air movement and better cooling capacity.

MODEL NUMBER	COLOR	AIRFLOW	FAN SIZE	MAX RPM	AIR VELOCITY 5' FROM FAN	AIR DELIVERY @ FLOOR	AMPS HIGH	HIGH WATTS	DOWNROD LENGTH	SHIPPING WEIGHT (LBS.)
CP48 HPWP	White	Up/downdraft	48"	352	700 ft/min	21,000 cfm	0.55	64	16"	18.02
CP56 HPWP	White	Up/downdraft	56"	319	660 ft/min	27,500 cfm	0.83	100	16"	24.00
CP56 HPWPC c/w cord & plug, non-reversible	White	Downdraft	56"	319	660 ft/min	27,500 cfm	0.83	100	16"	24.00
CP56 AG short downrod - ideal for low ceiling applications	White	Up/downdraft	56"	319	660 ft/min	27,500 cfm	0.83	100	8"	24.00
CP60 HPWP	White	Up/downdraft	60"	292	650 ft/min	46,000 cfm	0.84	101	16"	24.65

CP93-56KD - INDUSTRIAL FAN GUARD

Great for factories, farms, schools and warehouses.

FEATURES

- 61" W x 26" H
- Knockdown construction.
- Installs in minutes.
- Use with Canarm CP56, CP48 or CP36 ceiling fans.

