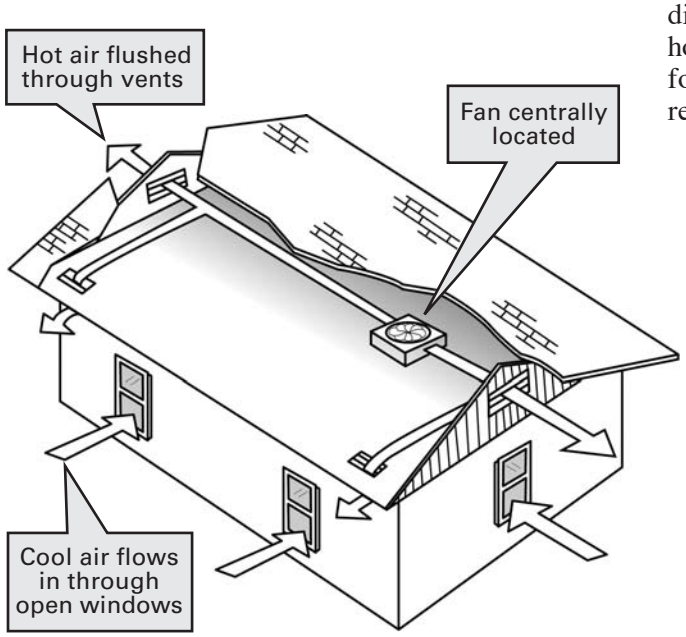
Money-Saving Whole House Fans
A Breath of Fresh Air

Cool Your Home Using About 10% of the Energy Your Air Conditioner Uses!
In the summertime, the air inside your home is heated during the hot part of the day. In the morning or late evening, the outside air is frequently cooler than the air inside of your home. This is the best time to open screened windows and doors and operate your Whole House Fan.

An Old Idea Whose Time Has Come
Before there was air conditioning, homes were cooled by relying on Mother Nature. Such things as shade trees, roof overhangs, and the orientation of the home itself all played an important role in maintaining a home's livability during hot summer months. Whole house fans were often used to replace hot, stale inside air with cooler outside evening air drawn through open windows and doors. But with the advent of air conditioning systems, these low-cost cooling methods, including the use of whole house fans, were gradually reduced to secondary strategies. Now, with energy costs becoming increasingly important, people are taking a second look at these and other methods to reduce energy costs. Hence there is renewed interest in whole house fans.

Why Use A Whole House Fan?
A whole house fan is a simple and inexpensive method of cooling a house. The fan draws cool outdoor air inside through open windows and exhausts hot room air through the attic to the outside. The result is excellent ventilation, lower indoor temperatures, and improved evaporative cooling.



What are the Benefits?
A whole house fan can be used to reduce the need for air conditioning. Outside air temperature and humidity dictate times when the whole house fan would be favorable over air conditioning. If both methods of cooling are present, a seasonal use of the whole house fan (during spring and fall) may yield the optimum combination of comfort and cost.

Cooling Strategies

- ***Morning pre-cool.*** Run a whole house fan in early morning to pre-cool furnishings and interior surfaces. Then before the temperature rises, turn off the whole house fan and close all windows and doors to trap the cool air in your home. This will delay the operation of your cooling system.

- ***Evening cool down.*** Operating your whole house fan when the outside temperature drops below the indoor temperature will cause cooling. This will reduce your air conditioner's run time; saving energy and money.

Whole house fans are effective only when outside temperatures are lower than inside temperatures. They yield best results when outside temperatures fall below 80 degrees. In Sacramento, where the air is dry and delta breezes dramatically lower evening temperatures, whole house fans are an effective home cooling solution.

Depending upon your specific circumstances, you may discover that a whole house fan can serve as your primary home cooling solution, letting you save your air conditioner for the very hottest days when outside air temperatures remain high.

More information on reverse side.

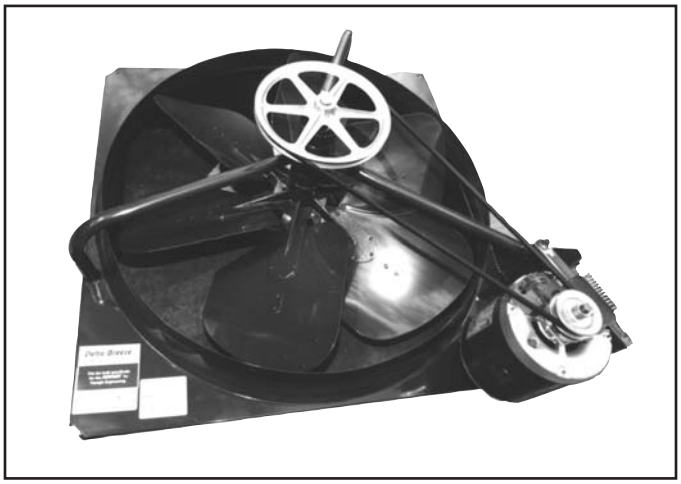
SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT
The Power To Do More.®

Money-Saving Whole House Fans Continues

Selecting a Whole House Fan*
Choosing the whole house fan that's right for you will depend upon your needs, and the features you prefer. Whole house fans are characterized most often according to the volume of air they replace in cubic feet per minute (CFM), and by their drive mechanisms – direct drive or belt drive.

A fan properly sized for your home can make a complete air exchange in about 2-3 minutes. Five to ten air exchanges will cool not just the air, but the walls and furnishings as well. Those things contribute to heat buildup by absorbing heat throughout the day, and releasing it at night. Running a whole house fan for about 20 minutes will cool these things sufficiently to make your home comfortable.

Most standard whole house fans move between 2,500 and 6,800 CFM of air, depending upon such factors as fan blade size, opening size, and available net free venting. Certain new models move only about 1,000 CFM, but offer better insulation in the off-season when they are not in use. And while smaller fans do not create the breeze effect inside the home that many people like about larger fans, they do require less energy to operate, as well as less net free venting. Be sure to ask your retailer or contractor about advantages and disadvantages of both standard and compact whole house fans.



Belt-drive whole house fan

To determine the volume of your home in cubic feet, take the floor area in square feet, and multiply that by the height of your ceilings. *For example:* an 1,800 square foot home with an 8 foot ceiling height has a volume of 14,400 cubic feet. If you wish to replace that volume of air in, say, three minutes, you would require a whole house fan rated at 4,800 CFM. A higher CFM rated fan will replace the air in less than three minutes, while a lower CFM rated fan will replace the air in more than three minutes.

Features
Most fans are available with the following options:
- Wall-mounted controls
- Two speed/variable speeds
- Belt or direct drive
- Horizontal or vertical mount
- Insulated louver covers (during winter when fan is not in use)

Consider a fan with at least a high and low speed. The high speed can be used for flushing the initial heat build-up from the home, and the low speed may be used for gentle air circulation and continued cooling. A belt-driven fan is generally quieter than a higher R.P.M. direct-drive unit, but will require periodic maintenance of the belt and pulley assembly.

A Smart Investment
Whole house fans are inexpensive, even when professionally installed. They usually pay for themselves in a few short seasons. For cost-effective cooling, they're hard to beat. For more information, ask your local retailer or contractor, or call SMUD at **1(888) 742-SMUD (7683)** or visit **www.smud.org.**

Receive a $100 Rebate!
SMUD residential customers may qualify for a $100 rebate for the installation of a whole house fan in their home (limited to one rebate per residence). The whole house fan must be purchased for permanent installation in a residence receiving SMUD electric service and must move at least 1,000 cubic feet of air per minute (CFM). Rebates are subject to change and/or discontinuation. Call 1-888-742-SMUD (7683) or visit www.smud.org to obtain current information. SMUD reserves the right to inspect installation premises or request additional information or documentation prior to rebate payment.

**** Avoid Backdrafts***
Care should be taken to avoid backdrafting combustion appliances that are installed in the conditioned space. It is strongly recommended that combustion appliances NOT be installed in such a manner that they use room air for combustion. The whole house fan is capable of pulling large quantities of air from the home and, particularly if not enough windows are open, may easily backdraft a water heater located inside a louvered closet door.