

HOW WE TESTED

Blown Away

All but one of the test fans were attached to a board by a screw-mounting base and then wired to screw terminals for connection to a 12-volt DC power supply. About a third of them came with a cord and cigarette-lighter-style plug. Each was run at its available speeds and tested for sound and wind output and current draw in an enclosed room. The sound was tested at 3 feet (directly in front of each fan) and at 1 foot (from the side pointed at the motor housing) using a Radio Shack digital sound level Db meter attached to a camera tripod. It was set for the "A" weighing level, which eliminates low frequencies below 500 Hz; it did not record frequencies.

The air output, or wind speed, was tested in feet per second using a Kestrel 1000 pocket weather meter attached to a camera tripod and set 3 feet in front of the fans. We recognize that simply measuring wind speed coming off a fan is a relative indicator of forced air movement and does not really indicate the total volume of air or CFM (cubic feet per minute) capability



of a particular fan. While not getting into the science of propellers, it was obvious that some fans were more efficient in moving air at a given rpm, and that the number, size, twist, and shape of the blades had a lot to do with it. Current was measured with an Actron digital multimeter with accuracy +/- 1.2 percent.

There were some subjective evaluations. These were given by multiple testers and averaged. When does noise become annoying? The pitch or frequency of a sound bothers some people and not others. In addition to sound and feeling the movement of air, general appearance, safety features, design and construction quality, or lack thereof came into some judgments.

A handheld weather meter and Radio Shack Db meter were used to measure the fans' performances.

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