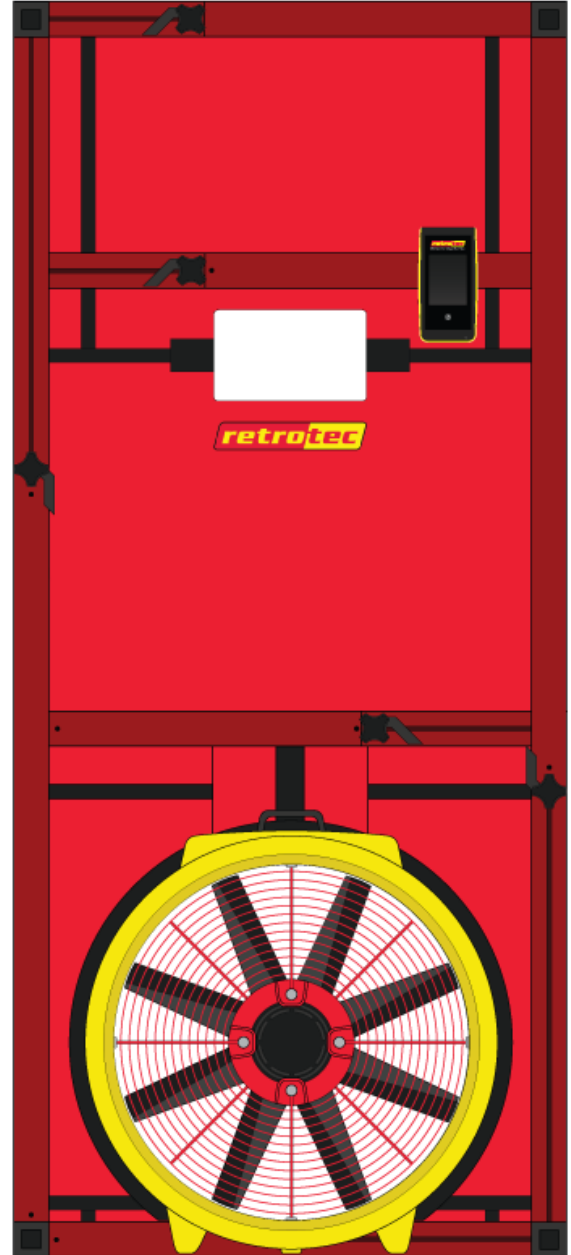


Doorfan Test

For Series 200, 300, 1000
and 3000 systems



1. How the Blower Door System components work

A Door Fan is a specially designed calibrated fan which, as part of the Blower Door Fan System, is temporarily mounted in a doorway. The fan is used to blow air into or out of a room, house, or building to measure the air leakage of the enclosure. The term “room, house, or building” is often shortened to “enclosure”.

The Door Fan System works by establishing a pressure difference between the inside and the outside of an enclosure. The pressure difference forces air to leak through all of the holes in the exterior envelope of the enclosure. The amount of air flow that is required to maintain a constant pressure difference is equal to the amount of air that is leaking from the enclosure. A specially designed gauge can thus be used to measure the pressure difference and calculate the amount of air flowing through the Door Fan, which can then be used to determine the total size of all those leaks.

A typical Door Fan or Door Fan system is comprised of four main parts:

1. A Door Panel, which temporarily seals a typical doorway and provides a hole to mount a fan.
2. A calibrated fan, capable of creating a measurable flow of air.
3. A two-channel differential pressure gauge that can also calculate flow for a particular fan.
4. A fan speed controller to change the air flow through the fan (which can be provided by the gauge)

A typical Door Fan system breaks down as shown in Figure 1:

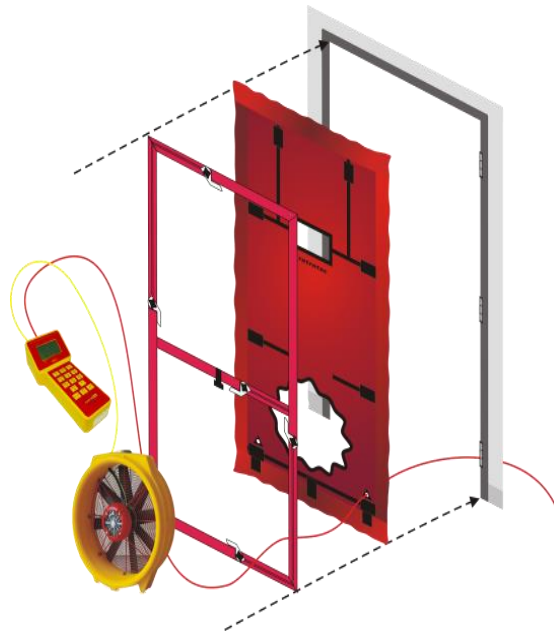


Figure 1: The breakdown of a typical Door Fan system.

In this case, an aluminum frame holds a Cloth Door Panel in place, sealing the doorway. The fan is mounted in the hole in the cloth, and is supported by the aluminum frame crossbar. The gauge is acting as both the fan controller and differential pressure gauge.