Minneapolis
BlowerDoor MultipleFan

The BlowerDoor MultipleFan measuring system with three measuring fans was designed for airtightness measurement of large industrial and administrative buildings with an envelope area of up to 36,000 m² or a building volume of up to 440,000 m³. Due to the modular design and the accessories included, the system can also be used in smaller buildings with only one or two measuring fans. In very large buildings, several MultipleFan systems are simply combined if required.

Airtightness measurements of large buildings

With the BlowerDoor MultipleFan measuring system (three fans), airtightness measurements with an air flow of around 21,600 m³/h can be carried out and recorded with the TECLOG software.

Pressure gauges and controllers form a clearly arranged unit close to the measuring equipment. The automatic control of the BlowerDoor fans is performed centrally by means of a laptop via data cable or optionally via WiFi. The building pressure differences and the air flow rates are displayed in real time on the monitor. With the POR (period of record) function, the desired measurement periods are recorded. The user sees deviations due to wind or open doors and can react promptly to disturbances in the measurement process.

The total air flow is automatically determined and displayed. The leakage curve can be displayed at any time during the measurement by mouse click. The quick analysis of the measurement results is important to decide on site whether the measurement is correct and the results meet the requirements.

After the measurement is completed, the data is read into the TECTITE Express software to create a report. Additional features such as the recording of several building pressure differences of different building sides as well as the analysis of the pressure distribution in the inside the building complete the TECLOG measurement software.

Air change rate (50 Pa)	Verifiable Internal Volume
3.0 h⁻¹	7,200 m³
1.5 h⁻¹	14,400 m³
0.6 h⁻¹	36,000 m³

Air permeability (50 Pa)	Verifiable Envelope Area	Max. Internal Volume (based on Envelope Area)	
4.5 m³/m²h	4,800 m²	22,500 m³	A/V ca. 0.21 m²/m³
2.5 m³/m²h	8,640 m²	52,800 m³	A/V ca. 0.16 m²/m³
0.6 m³/m²h	36,000 m²	440,000 m³	A/V ca. 0.08 m²/m³

The most important functions

- BlowerDoor measurement according to ISO 9972 and EN 13829
- Guard zone measurement
- Clear and compact test set-up
- Combination of different pressure gauges possible (e.g. DG-700 and DG-1000)
- Simultaneous control of all BlowerDoor fans using a single laptop
- Data communication via cable or integrated WiFi module
- Real-time display of the air flow rate allows you to analyze the measuring results on site
- Recording of several building pressure differentials helps with measuring very large buildings with complex floor plans or great height
- BlowerDoor MultipleFan with 3 fans allows distribution of fans (2 + 1) in different door openings to achieve constant pressure distribution in very large buildings
- Data and comments are recorded in one file
- Automatic shutdown when limit pressure is reached

Technical Data

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Capacity: 19 m³/h − 7,200 m³/h (total capacity of three fans is approx. 21,600 m³/h) at a pressure differential of 50 Pa

Power supply: 220 − 240 V, 50 Hz, nominal output < 625 W per fan, max. power consumption 4.0 A per fan

Measuring accuracy: With open fan, rings A − C (flow rate approx. 80 − 7,200 m³/h) ± 4 % of the mean, with rings D − E (flow rate approx. 19 − 80 m³/h) ± 5 % of the mean or ± 1.7 m³/h (the higher value is valid)

Dimensions and weights:
Per fan: Ø approx. 610 mm, approx. 15 kg / **Speed controller:** 103 × 207 × 62 mm (L × W × D), approx. 1.7 kg
Gauge board: 260 × 224 × 6 mm (L × W × D), approx. 0.5 kg

Mounting frame standard size: Dimensions from W 0.71 − 1.14 m to L 1.32 − 2.43 m, incl. lower and middle cross bars, weight approx. 7 kg, special dimensions on request

Panel standard size: BlowerDoor panel with one, two and three openings

Information about the DG-1000 and the TECLOG MultipleFan software please see data sheet DG-1000.

The accuracy of the BlowerDoor Standard, BlowerDoor MiniFan and BlowerDoor MultipleFan measurement systems meets the requirements of the following test standards: ISO 9972, EN 13829, FD P50-784, ASTM E779, ASTM E1554, CGSB, ATTMA TS1, NFPA, RESNET, US ACE, ISO 14520, EN 15004, VdS 2380 and 2381.

Scope of delivery

2 measurement systems Minneapolis BlowerDoor Standard / 1 BlowerDoor fan / accessory bag incl. fan cover, speed controller incl. gauge board, BlowerDoor panel (standard size) with 2 openings, BlowerDoor panel (standard size) with 3 openings, software TECLOG MultipleFan, communication jack, 1 WiFi-N-Router (4 ports, 300 MBit/s, 2T2R), 2 premium patch cables (red, 2 m), 1 premium patch cable (yellow, 10 m), tube set, reference guide / additional upper cross bar / mounting strut short and long / 2 laptop racks / attachment: measurement device holder / sealing box for building preparation

All BlowerDoor measuring systems come with their calibration certificate

4-year warranty
on all Minneapolis BlowerDoor measurement systems

Do you intend to upgrade your measuring system Minneapolis BlowerDoor Standard or to combine several BlowerDoor MultipleFan systems? **Contact us to compile the optimal configuration!**

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