

## Automated BlowerDoor Measurement with TECTITE Express

### Minneapolis BlowerDoor Standard

With a measuring range of 19 to 7,200 m<sup>3</sup>/h, BlowerDoor Standard, one of the most successful airtightness Measurement Systems worldwide, is ideal for use in new buildings as well as during the rehabilitation of any residential or commercial building. If necessary, it can be expanded onto the BlowerDoor MultipleFan Measuring System.

### Minneapolis BlowerDoor MiniFan

BlowerDoor Measuring Systems are universally applicable: With a measuring range of 5 to 2,300 m<sup>3</sup>/h, our compact BlowerDoor MiniFan System is perfect for use in individual apartments or very airtight or smaller buildings.



With the DG-700 high precision pressure gauge and the TECTITE Express software included in the package, you can conduct highly accurate automated BlowerDoor tests in accordance with European Standard EN 13829 via a laptop computer. When performing quality assurance tests, the BlowerDoor fan is controlled directly from the DG-700 digital pressure gauge and a one-point test (without a laptop) is conducted at 50 Pascal to detect leakages. BlowerDoor WiFi (optional) additionally allows you to conduct one-point measurements via an app on your smart phone or tablet.

## BlowerDoor test according to European Standard EN 13829

The standard-compliant measuring series is computer-controlled from a laptop with the new software TECTITE Express 4.1. If desired, the data is transferred from the pressure gauge to the laptop wirelessly through WiFi-Link. The test sequence can be controlled individually and the current measuring values are displayed on the monitor. All collected data is fed into the standard-compliant BlowerDoor test report for evaluation and documentation. This report contains queries and evaluations in accordance with European Standard EN 13829.

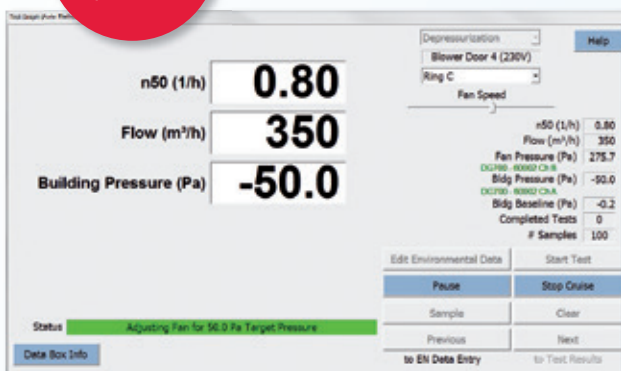


Above: DuctBlaster fan (Measurement System BlowerDoor MiniFan) with flow rings 1-4



Left: BlowerDoor fan with flow rings A-E

**NEW**  
TECTITE  
Express 4.1



Automated BlowerDoor measurement with Software TECTITE Express



BlowerDoor test for quality assurance during construction

In addition to the automated BlowerDoor measurement, other new features of the TECTITE Express 4.1 measuring software include the possibility of conducting semi-automated or, if required, manual tests and including the calibration date of the pressure gauge and measuring fan in the BlowerDoor test log. 12 pressure stages can be selected for each measurement series. For unfavorable climatic conditions or specific building properties, the accuracy of the measurement can be increased further by entering up to 1,000 measuring points per pressure stage. Each measurement series also includes the interior and exterior temperature as well as the corresponding air pressure. The modular set-up allows you to add the WiFi function to the existing BlowerDoor measuring system with DG-700 at any time.

## Preliminary BlowerDoor tests for quality assurance purposes

For a one-point test the measuring fan is controlled directly from the DG-700 digital pressure gauge (Cruise Control). It is not necessary to use a laptop. The state of the building is tested at constant negative pressure, usually of 50 Pascal. If leakages are detected, they can generally still be easily eliminated during the construction phase. This enables all lines of contractors to provide quick proof and documentation of the quality of their construction work.



## The digital pressure gauge DG-700 is also impressive as a stand-alone device

With the DG-700 as a stand-alone measuring device, you can easily test the operability of exhaust air systems or conduct rapid functional tests of ventilation systems with heat recovery, as well as measure the volume flow through exhaust air valves with the Exhaust Fan Flow Meter.

## New: BlowerDoor WiFi also available as an upgrade

All BlowerDoor Measuring Systems come with WiFi-Link upon request for wireless data transmission. The WiFi-Link is attached to the DG-700 pressure gauge. The data recorded during the BlowerDoor measurement (fan and building pressure) is transmitted to the laptop wirelessly and fed into the new software version of TECTITE Express 4.1. Thanks to the wireless connection, you can control the BlowerDoor measurement from your laptop independently of your installed BlowerDoor measurement system, and the measurement can easily be conducted from any location in the building up to a maximum range of 100 meters. It is also possible to control the measuring system through an app on your smart phone. The current building pressure and air change rate of  $n_{50}$  are displayed on your smart phone in real time, so that this information is accessible at all times – even during leakage detection in the building, for example.



**4-year warranty**  
on the  
entire Minneapolis  
BlowerDoor  
Measurement  
System!



Above: Minneapolis BlowerDoor Standard



Left: Handy – Minneapolis BlowerDoor MiniFan

## An overview of the most important functions

- Fully automated, semi-automated, and manual BlowerDoor measurements in accordance with European Standard EN 13829
- Cruise Control function for quality assurance (one-point measurement without laptop)
- All BlowerDoor Measuring Systems may be purchased with WiFi-Link and app
- Display of the measuring results for different reference pressures
- The calibration date of the pressure gauge and the measuring fan is included in the test report
- Automated acquisition and evaluation of the natural pressure differences
- Individual adjustment of test settings
- Measurement results and test reports can be displayed on the laptop on-site
- Automatic shutdown when limit pressure is reached

## Technical Data

### Minneapolis BlowerDoor Standard

<b>Capacity:</b>	19–7,200 m <sup>3</sup> /h at 50 Pa
<b>Power supply:</b>	220–240 V, 50 Hz, nominal output <600 W, max. power consumption 3.7 A
<b>Measuring accuracy:</b>	With open fan, rings A–C (flow rate approx. 80–7,200 m <sup>3</sup> /h) ±4 % of the mean. With rings D–E (flow rate approx. 19–80 m <sup>3</sup> /h) ±5 % of the mean or ±1.7 m <sup>3</sup> /h (the higher value is valid)
<b>Dimensions and weight (fan):</b>	Ø approx. 610 mm, approx. 15 kg
<b>Dimensions and weight (controller):</b>	L 410 × W 115 × D 90 mm, approx. 2 kg
<b>Mounting frame standard size:</b>	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

### Minneapolis BlowerDoor MiniFan

<b>Capacity:</b>	5–2,300 m <sup>3</sup> /h at 50 Pa
<b>Power supply:</b>	220–240 V, 50–60 Hz, nominal output 240 W, max. power consumption 3.0 A
<b>Measuring accuracy:</b>	With open fan, rings 1–3 ±4 % of the mean or ±1.7 m <sup>3</sup> /h (the higher value is valid). With ring 4 ±4 % of the mean or ±0.9 m <sup>3</sup> /h (the higher value is valid)
<b>Dimensions and weight (fan):</b>	Ø approx. 345 mm, approx. 2.7 kg
<b>Dimensions and weight (controller):</b>	L 220 × W 220 × D 90 mm, approx. 2 kg

**Panel standard size:** BlowerDoor panel with one opening and viewing window

### Digital pressure gauge DG-700

With 2 pressure channels and cruise control function

**Measuring range:** -1,250–+1,250 Pa

**Display resolution:** 0.1 Pa

**Accuracy:** ±1 % of reading or ±0.15 Pa (the higher value is valid)

**Auto-zeroing:** At the start, and every 10 seconds

**Differential pressure display:** Separate display of the two differential pressure channels

**Flow rate display:** Compatible with Minneapolis BlowerDoor fans model 4 (BlowerDoor Standard), model 3, DuctBlaster

**Units:** m<sup>3</sup>/h, l/s

**Averaging:** 1 second, 5 seconds, 10 seconds, or long-term mean

**Operating temperature:** 0–50°C

**LCD Display:** Large, easy-to-read display: L 80 × W 30 mm incl. display illumination

**Batteries:** 6 AA (optional power supply)

**Operating time:** Approx. 100 hours

**Weight:** Approx. 470 g

**Dimensions:** L 195 × W 102 × D 32 mm

**Output:** Serial data output (RS232), mini-USB

**Cruise control function:** Automatic speed control of BlowerDoor fan for one-point test without a laptop (0/25/50/75 Pa)

**Laptop-controlled functions:** Automated/semi-automated/manual BlowerDoor measurement (Test Standard EN 13829)

### WiFi-Link

**Dimensions:** L 70 × W 48 × D 25 mm

**Weight:** 57 g

**Radio Protocol:** IEEE 802.11b compatible

**RF Output Power (Typical):** +18 dBm

**RF Operating Frequency:** 2.4–2.497 GHz

**Supported Data Rates:** 11/5.5/2/1 Mbps (802.11b)

**Operating Temperature:** 0–50°C

**Certifications and Compliance:** WiFi, FCC, IC, ETSI, RoHS, CE

**Power Source:** Connection to the Digital Gauge DG-700 (+6–+12 V DC at 250 mA Nominal)

**Battery life of DG-700 when connected with WiFi-Link:**

20–30 hours continuous depending on digital gauge

**Wireless connection modes:** Access point or router-supported

### Software TECTITE Express

(Version 4.1 and reference guide available in EN/DE/FR) Automated/semi-automated/manual BlowerDoor test optional with WiFi, incl. Test Report (Test Standard EN 13829)

**System requirements:** WIN XP or up

### Shipment includes

**Minneapolis BlowerDoor Standard:** BlowerDoor fan with flow rings A–E / accessory bag incl. fan cover, BlowerDoor panel (standard size), digital pressure gauge DG-700 with cruise control function and transport bag, fan speed controller (220–240 V) incl. gauge board, reference guide, software TECTITE Express 4.1, tube set, calibration certificate for the DG-700 (24 measuring points) and for the BlowerDoor fan (6 measuring points) / BlowerDoor mounting frame (standard size) incl. transport bag

**WiFi BlowerDoor Standard WiFi (optional):** See BlowerDoor Standard, plus WiFi-Link

**Minneapolis BlowerDoor MiniFan:** Handy BlowerDoor fan (DuctBlaster) with flow rings 1–4 incl. fan cover, BlowerDoor panel (standard size), digital pressure gauge DG-700 with cruise control function and transport bag, fan speed controller (220–240 V) incl. gauge board, reference guide, software TECTITE Express 4.1, tube set, calibration certificate for the DG-700 (24 measuring points) and for the DuctBlaster fan (5 measuring points) packed in a robust transport bag / BlowerDoor mounting frame (standard size) incl. transport bag

**WiFi BlowerDoor MiniFan WiFi (optional):** See BlowerDoor MiniFan, plus WiFi-Link

**Guarantee period:** 4 years from purchase date



**BlowerDoor GmbH**  
MessSysteme für Luftdichtheit

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