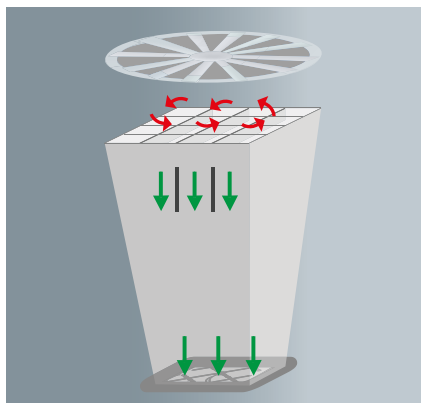


## Precise measurement of volume flows in public and commercial buildings with the volume flow hood testo 420.



For humans to feel comfortable in a room, the air quality, among other factors, must be ensured. Assuming closed rooms, this quality results from the volume flows of the installed VAC system. In order to respect the regulations for Indoor Air Quality, regular checking of the total volume flow of the VAC system is necessary. It is not uncommon for an air conditioning technician to conduct up to fifty measurements at different air outlets in several rooms.

The extra-light and convenient volume flow hood testo 420 simplifies these measurements enormously. And, thanks to an integrated flow straightener, also allows a more precise measurement result to be achieved at larger swirl outlets.



Functional principle of the flow straightener



Tilttable and removable display



Differential pressure measurement with connection hose

**The challenge.**

A high CO<sub>2</sub> concentration in a room leads to fatigue, and can even cause illness. For this reason, sufficient oxygen must be introduced by an exchange of fresh air, especially in commercial buildings, offices and schools. The workplace directive DIN EN 13779 even requires certain outside air flows, depending on the activity of the persons in the room:

- 20-40 m<sup>3</sup>/h per person with a predominantly sitting activity
- 40-60 m<sup>3</sup>/h per person with a predominantly non-sitting activity
- over 65 m<sup>3</sup>/h per person with a heavy physical activity.

In order to meet these norms, the air conditioning technician regularly tests the total volume flows of the VAC system. To do this, up to fifty measurements at different outlets can be necessary, which means a high physical burden. In addition to this, these rooms have large swirl outlets installed as standard, which do not blow the air into the room straight, but instead continually swirl it. The consequence of this swirl: Air flows are often incorrectly measured at these locations. And this complicates the determination of the volume flow substantially.

**The solution.**

The volume flow hood testo 420 sets new standards regarding weight and precision. With only 2.9 kg and ergonomic handles, frequent or difficult measurements too, can be carried out comfortably, without inducing fatigue, and therefore safely. And the innovative flow straightener converts the turbulence at the swirl outlets into an almost uniform air flow, leading to a considerably more accurate measurement. In addition to this, the hood records the ambient climate using an integrated temperature and humidity sensor as well as an absolute pressure sensor.

The application is simple too: Funnel-shaped tension rod sockets support easy and quick set-up, and the trolley included in delivery ensures safe transport. Via Bluetooth App integration, smartphones and tablets can be used as a second display and remote control. After the measurement, the App allows the finalization and sending of the measurement protocol directly on site. Differential pressure or Pitot tube measurements are also possible with the removable measuring instrument by simply entering the duct geometry. With the volume flow hood testo 420, users can quickly and accurately fulfil the legal regulations on Indoor Air Quality for ventilation and air conditioning systems in commercial buildings and schools.

**The advantages.**

- More precise measurement of volume flow at larger swirl outlets
- Uniquely light, with only 2.9 kg
- Fast set-up, easy handling and convenient operation thanks to mobile App

**More information.**

More information from our experts at [www.testo.com](http://www.testo.com)