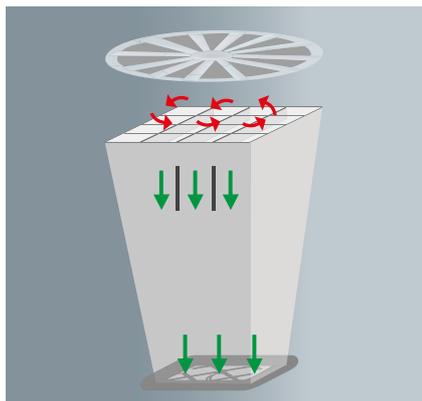


Precise measurement of air exchange rates for good ambient conditions for work and production – with the **volume flow hood testo 420.**



In industry, VAC systems have the job of guaranteeing good ambient conditions for work and production. Bad air quality can not only have an effect on the product quality, in the worst case it can also endanger the health of the staff. In order for the various norms and guidelines to be adhered to, the prescribed air exchange rate of a room must be regularly ensured by testing the total volume flow of the system. These checks are often carried out at larger swirl outlets which distribute the air evenly. The problem at swirl outlets: the turbulent air can severely falsify the measurement result. With the volume flow hood testo 420, these measurement errors can be significantly reduced. The integrated flow straightener pacifies the turbulence, ensuring a more precise determination of the volume flow at swirl outlets. And thanks to the low weight of the hood, frequent measurements in many rooms, as well as measurements above head height can be carried out safely and comfortably.



Functional principle of the flow straightener



Measurement and report creation via App



Pitot tube measurement in a duct

The challenge.

The indoor air climate in production companies from the food, tobacco, paper, textiles or wood industries must accomplish two tasks. On the one hand, it may not endanger the health of the staff. And on the other, it should guarantee uniform ambient conditions for a faultless production process, and highest product quality. This is why the VAC systems in such rooms are required to adhere to stringent norms and guidelines. The crucial factor is the prescribed air exchange rate. Depending on the VAC system, this rate must be checked several times a year by an air conditioning technician, by measuring the total volume flow at the air outlet or in a duct. In measurements at air outlets, a problem occurs: Rooms such as these 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 significantly reduces measurement errors at larger swirl outlets. The innovative flow straightener converts the turbulence 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. Another advantage of the the hood is its low weight of only 2.9 kg. In combination with ergonomic handles, frequent or difficult measurements can therefore be conducted comfortably and safely.

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. Mobile devices such as smartphones and tablets can be used as a second display and remote control via Bluetooth App integration – especially useful for the safe use of a tripod for high ceilings. After the measurement, the App allows the finalization and sending of the measurement protocol directly on site. Differential pressure and 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 industry.

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