

Foreword

Welcome to the November 2022 edition of the TightVent Europe newsletter!

Following another successful annual conference held on October 5-6, 2022, in Rotterdam drawing more than 140 participants from 22 countries, this newsletter includes some highlights of the airtightness track of the conference where you will gain some insights on national regulations regarding building and ductwork airtightness and their implementation, as well as building airtightness durability over time.

We are also happy to announce the upcoming 11th TightVent conference: "Ventilation, IEQ and health in sustainable buildings" to be held in Copenhagen, Denmark together with the 43rd AIVC and the 9th venticool conferences on October 4-5, 2023, as well as the AIVC Workshop: "Towards high quality, low-carbon ventilation in airtight buildings" which will take place in Tokyo, Japan on May 18-19, 2023. We look forward to your contributions and participation!

The newsletter also includes information on new publications as well as news from the TightVent Airtightness Association Committee (TAAC) and our partners.

Please visit our [website](#), follow us on [twitter](#) and [LinkedIn](#) and [subscribe](#) to our monthly newspaper "Energy Efficiency and Indoor Climate in Buildings" to find out more about our activities. We wish you a pleasant reading!

The TightVent team



Feedback from the 42nd AIVC – 10th TightVent- 8th venticool joint Conference – Summary of the airtightness track

The AIVC – TightVent - venticool 2022 joint Conference "Ventilation Challenges in a Changing World", organized by the International Network on Ventilation and Energy Performance ([INIVE](#)) on behalf of the Air Infiltration and Ventilation Centre ([AIVC](#)), the Building and Ductwork Airtightness Platform ([TightVent Europe](#)), the international platform for ventilative cooling ([venticool](#)) & the Dutch Organization for Applied Scientific Research ([TNO](#)), was held on 5-6 October in Rotterdam, Netherlands. The event drew just over 140 participants - researchers, engineers & architects, policy makers or regulatory bodies, manufacturers & stakeholders and international organizations from 22 countries.

The programme included 3 parallel tracks of structured sessions with around 130 presentations covering the main conference topics namely: Smart Ventilation, Indoor Air Quality (IAQ) and Health; Building & Ductwork Airtightness; Resilient Ventilative cooling. A special session i.e., "90 seconds industry presentations" was also organized and devoted to the sponsors of the event.

The event has also been a major discussion place for on-going international projects such as, the [IEA EBC annex 87 "Energy and Indoor Environmental Quality Performance of Personalized Environmental Control Systems"](#), and the [IEA EBC Annex 80 "Resilient Cooling of Buildings"](#).

The airtightness track at the AIVC 2022 conference consisted of 24 presentations organized in 4 sessions of which 2 were topical sessions with a number of invited presentations. Three main topics were discussed:

- What are the national regulations regarding building and ductwork airtightness?
- How to check the implementation? and
- What about the building airtightness durability over time?

The full summary of the airtightness track can be found [here](#).

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4 - 5 October 2023 – 11th TightVent- 43rd AIVC - 9th venticool conference in Copenhagen, Denmark

The 11th TightVent conference: "Ventilation, IEQ and health in sustainable buildings" will be held in Copenhagen, Denmark together with the 43rd AIVC and the 9th venticool conferences on October 4-5, 2023. The conference will take place at Aalborg University Copenhagen.

Conference Scope

As we spend most of our time in commercial and residential facilities, it is important for our society to look at how these spaces impact the environment and the people in them. This task is important for building and facility managers, maintenance managers, energy managers as well as expert and researcher concerned with adopting sustainable and healthy practices for an organization.

From indoor environmental quality point of view, sustainable buildings prioritize the quality of life and the wellbeing of the buildings' occupants and at the same time reduce negative environmental impacts. A building that, in its design, construction or operation, reduces negative impacts on our climate, also reduces their occupants' risk of related health problems and provides a more pleasant indoor environment, as well as increases occupants' satisfaction.

Conference concept

The conference will consist of 3 parallel sessions largely devoted to:

- Smart ventilation, Indoor Air Quality (IAQ) and health

- Building and ductwork airtightness
- Ventilative cooling – Resilient cooling

The conference will consist of a mixture of presentations from the call for papers and presentations upon invitation, organized in well prepared and structured sessions focused on the conference theme and topics. Some sessions will consist of presentations from the call for papers only, other sessions will be topical sessions with presentations proposed by a session organizer and by the organizing committee. The conference is combined with an exhibition by industry partners.

Conference topics:

Building and ductwork airtightness

- Role of airtightness in building decarbonization and epidemic preparedness
- Energy and IAQ impact of envelope and ductwork leakage
- Innovative measurement and airtightness techniques
- Compliance schemes
- Long-term performance: durability of airtightness
- EPBD revision and impact on ventilation and IAQ
- Circular economy, sustainability, and green buildings

Smart ventilation, IAQ and health

- Role of ventilation in building decarbonization and epidemic preparedness
- Ventilation reliability: performance verification and durability
- IAQ impacts from outdoor pollutants, indoor cooking and combustion
- Combining ventilation and air cleaning for acceptable IAQ
- The role of consumer IAQ sensors
- Model based data analytics and control strategies for smart ventilation
- Building Information Modelling (BIM), Life Cycle Assessment (LCA) for ventilation and building services
- EPBD revision and impact on ventilation and IAQ
- Inspection, monitoring and

maintenance of ventilation systems

- Circular economy and sustainability, green buildings

Ventilative cooling – Resilient cooling

- Role of ventilative and resilient cooling in building decarbonization and epidemic preparedness
- Ventilative and resilient cooling in a changing climate
- Implementation in standards, legislation, and compliance tools
- Control strategies and personal comfort control
- EPBD revision and impact on ventilation and IAQ

Conference Organizers

The conference is an initiative from:

- the International Network on Ventilation and Energy Performance ([INIVE](#)) on behalf of the Air Infiltration and Ventilation Centre ([AIVC](#)), [TightVent Europe](#) (the Building and Ductwork Airtightness Platform), and [venticool](#) (the international platform for ventilative cooling); and
- Aalborg University in Copenhagen

There will be 2 separate calls for abstracts & papers depending on whether the authors are interested in the peer review of their papers; a call for topical sessions; and a students' competition.

Detailed information & important deadlines for the 2 calls for abstracts can be found at:

<https://aivc2023conference.org/call-for-abstracts-papers/>

Detailed information & important deadlines for the call for topical sessions can be found at:

<https://aivc2023conference.org/call-for-topical-sessions/>

Detailed information for the students' competition can be found at:

<https://aivc2023conference.org/students-competition/>

For more information, please visit the conference website at:

<https://aivc2023conference.org/>

TAAC news & latest activities

The TightVent Airtightness Association Committee (TAAC) continues to meet 4 times per year. The first physical meeting since 2019 was held on October 4th, 2022 (usually every year but held remotely in 2020 and 2021 due to COVID-19). The focus was mainly on news from participants' countries (Belarus, Belgium, Czech Republic, Estonia, France, Germany, Latvia, Lithuania, Netherlands, Spain, Switzerland and UK), and in particular:

- France: mandatory inspection of ventilation systems; penalties for airtightness tests in case of sampling or test performed before the final completion of the building
- Germany: both pressurization and depressurization airtightness tests have now to comply with the required maximum leakage rates; the weighted regression is now an option
- UK: the new regulation requires 100% testing; the pulse technique is now an option

During the previous virtual meeting on June 21st, 2022, presentations were given by three speakers:

- Filip Van Mieghem, Soudal on the airtightness products definitions/differences between sealants
- Miguel Angel Padilla, UVA on the 3D characterization of the air infiltration path using infrared technology
- Mark Modera, U.C. Davis on sealing existing home envelope leakage by injecting aerosolized sealant into the attic

Several TAAC participants are involved in the series of VIP on building and ductwork airtightness trends in various countries, with already two published papers from [Estonia](#) (Kalamees et al., 2022) and [Spain](#) (Hoek et al. 2022); five more are under review with a publication expected in the next weeks (Belgium, Czech Republic, France, Greece and

Latvia) and three more under development with a publication expected in 2023 (Germany, Netherlands and Switzerland).

18-19 May 2023, AIVC Workshop, Tokyo, "Towards high quality, low-carbon ventilation in airtight buildings"

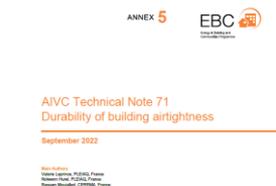
Mark your calendars for the upcoming AIVC 2023 Workshop "Towards high quality, low-carbon ventilation in airtight buildings" to be held on 18-19 May 2023 in Tokyo, Japan!

The workshop will take place at Bellesalle Mita (Mita, Minato-ku, Tokyo 108-6301). The workshop theme is "Towards high quality, low-carbon ventilation in airtight buildings".

Information on registration, programme, speakers etc. will follow soon, so stay tuned.

New publications

The AIVC has recently released 3 publications in collaboration with TightVent & TAAC.



[AIVC's Technical Note no 71: Durability of building airtightness](#) (September 2022).

This report presents a comprehensive review of studies that deal with building airtightness durability. It identifies key elements that may drive airtightness variations. Furthermore, the report gives the pros and cons of various alternatives to define a protocol of product assemblies concerning airtightness. Finally, this

report stresses the importance of implementation conditions on airtightness durability, whose impact can be studied both on site and in laboratory.



[AIVC's Ventilation Information Paper no 45.1: Trends in building and ductwork airtightness in Estonia](#) (July 2022).

This paper summarizes current knowledge on trends in building and ductwork airtightness in Estonia.



[AIVC's Ventilation Information Paper no 45.2: Trends in building and ductwork airtightness in Spain](#) (September 2022).

This paper summarizes current knowledge on trends in building and ductwork airtightness in Spain.

All documents are freely accessible at: <https://www.aivc.org/resources/collect-on-papers/aivc-publications>.

Product news as provided by our partners

Leakage testing of ventilation duct systems according to EN 12599

The Micro Leakage Meter (MLM) was developed to ensure the functionality of ventilation systems by means of leakage testing of the ductwork. With a measuring range of 0.17 to 78.5 m³/h, the MLM is also ideally suited for component testing and measurements of small and very tight clean rooms.

The tightness of the installed ventilation ducts is an important prerequisite for the functionality and efficiency of a ventilation system. Leakages in the duct network prevent the targeted distribution of air in the building, which means that the desired air quality is not realized. Leaky ventilation ducts also reduce the efficiency of ventilation systems with heat recovery. The tightness of the duct systems can be reliably determined with the Micro Leakage Meter and the BlowerDoor DuctBlaster.

For more information, please visit: www.blowerdoor.com



MEZ Balloon for round Air duct sealing

Our "Balloon" rubber sealing bladders are ideal for sealing round air ducts when sealing with MEZ-AERSEAL, leak testing or for cleaning purposes. Available in different sizes, the balloons can be inflated quickly and easily with any standard air pump or compressed air supply. After testing is complete, they can be removed from the air duct system and be reused. When inflating, make sure that no screws or sharp objects are around, as these may cause damage to the balloon under certain circumstances.

- Rubber sealing bladders for sealing round air ducts.
- Pipe diameter <250 bis< 600 mm
- Reusable
- Can be quickly and easily inserted at pipe or fitting ends and through inspection openings
- Can be inflated with a simple air pump or other compressed air supply



For more information, please visit: <https://www.mez-technik.de/en/>

Introducing: Retrotec's Model 500 Commercial DucTester

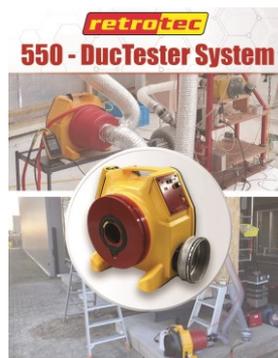
Precision Control & Higher Flows

Retrotec's Model 500 Commercial DucTester is the newest and most robust duct tester Retrotec has ever designed. Nothing else on the market comes close to its extreme performance in such a compact, lightweight handheld system.

A completely new motor design allows for precise fan speed control like never before. The Model 500 is ideal for those needing to reach high flows & advanced control.

The Model 500 has a significant improvement in the high-resolution control over motor speed, which provides users with a lot more versatility.

For more information, please visit: <https://retrotec.com/> or contact us at salesEU@retrotec or +31 (0) 522 282941.



Lindab's Fire System Pro. One steering system – full fire protection

Lindab Fire System Pro is an automatic fire control steering system with multiple setups through one access point, customized function testing and Bluetooth technology for faster commissioning.

The new Fire System Pro from Lindab combines two parallel systems in a complete steering system that supports both fire dampers and smoke control dampers. The system only consists of three main components - an intelligent Master unit, fast regulating damper unit and Bluetooth application, that will get you a high-end fire protection with full control and flexibility to add more products and tailor the system to your needs.

For more information, please visit <https://www.lindab.com/>



DIAMOND PARTNERS



GOLD PARTNERS



SILVER PARTNERS



ASSOCIATE PARTNERS



PLATFORM FACILITATOR

