

Newsletter No 8

Foreword

The March QUALICHeCK workshop in Lund—co-organised with TightVent—was a good occasion to witness the progress made in the Member States to foster better envelope and ductwork airtightness and better ventilation system performance. Regulation is clearly the strongest driver, and gets even stronger with converging private initiatives; however, the successful Swedish experience with airtight ductwork and quality ventilation systems shows that it is not the only route to consider.

The workshop also discussed the roles of research, standards, product development, dissemination, and policies to positively influence the ventilation and airtightness markets. This newsletter aims to give snapshots of recent initiatives in these fields. We wish you a pleasant reading and look forward to seeing you in our future events (see our Events Calendar on page 4).

The TightVent team

September 23-24, 2015: 36th AIVC conference, Madrid, Spain

The 36th AIVC conference: 'Effective ventilation in high performance buildings' will be held in Madrid, Spain together with the 5th TightVent and the 3rd venticool conferences in September 23-24, 2015. It will be a major international event in 2015 focusing on various topics relevant to airtightness, ventilative cooling, IAQ and health, as well as compliance, smart control, and BIMs (see full list of topics on:

<http://tightvent.eu/archives/2123>).

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
- The Eduardo Torroja Institute for Construction Science - IETcc-CSIC

Registration to the conference is now open. To register online please visit:

<http://aivc2015conference.org/registration>

Programme information will follow soon so stay tuned at: www.aivc2015conference.org

QUALICHeCK FACT SHEET: “Building regulations can foster quality management — the French example on building airtightness”

One of the objectives of QUALICHeCK is to speed up the implementation and uptake of approaches to improve the reliability of EPC input data and the quality of the works in practice. To this end, a number of fact sheets to be produced by the consortium will analyse approaches that have been implemented, point out the pros and cons of options that may be considered, and give hints and pitfalls to avoid if replicated in other contexts.

Fact sheet #01 describes how a quality management scheme has been introduced in the French energy regulation to encourage professionals to question their current practice and find effective solutions to improve building airtightness. The scheme allows successful applicants (mostly builders of single-family dwellings) to justify for a given airtightness level without systematic third-party testing. The fact sheet details the basic principles of the approach as well as the requirements applicants have to fulfil. It also builds on the evaluation and lessons learnt by state authorities on the scheme itself and its actual results. For more information visit:

<http://qualicheck-platform.eu/results/factsheets/>



In this issue

- Foreword
- September 23-24, 2015: 36th AIVC conference, Madrid, Spain
- QUALICHeCK FACT SHEET: “Building regulations can foster quality management — the French example on building airtightness”
- March 16-17, 2015: QUALICHeCK workshop, Lund, Sweden
- New BPIE report on “Indoor Air Quality, Thermal Comfort and Daylight”
- Outcomes of the 35th AIVC & 4th TightVent conference in Poznan: Summary of the airtightness track
- September 12-14, 2016: 37th AIVC – ASHRAE – IAQ joint conference Alexandria, VA, USA
- Certified Air Tightness Tester Scheme NSAI in Ireland
- Product news from our partners
- May 8-9, 2015: 9th International BUILDAIR Symposium, Kassel, Germany
- Airtightness testing requirements for Passive House and EnerPHit certification guide
- Join us in TightVent Europe
- Events calendar

March 16-17, 2015: QUALICHeCK workshop, Lund, Sweden

Around 55 participants from 16 countries attended the international workshop on "Ventilation and Airtightness in Buildings: Voluntary and Regulatory Frameworks to Improve Quality and Compliance" which was held in Lund, Sweden on March 16-17, 2015.

One topic of specific attention was schemes implemented in various countries to reduce errors in ventilation and airtightness input data used in energy performance certificates and to improve the quality of the works. Discussions were based on analyses of lessons learnt from field data.

Specific sessions included:

- Objectives & outcomes of QUALICHeCK project
- Building ventilation: industry initiatives-opportunities and challenges for manufacturers
- Selected approaches addressing quality and compliance in various countries- Concerns for innovation
- Swedish approach to quality and compliance
- Steps to improve the reliability of EPC input data and quality of the works in the Belgian context
- Status on the ground and industry-driven initiatives in the French regulatory context
- Developing effective compliance frameworks
- Conclusions and Perspectives

This workshop was a joint initiative from: AIVC (Air Infiltration and Ventilation Centre), the QUALICHeCK consortium, TightVent (Building and Ductwork Airtightness Platform) and venticool (the international platform for ventilative cooling).

Recordings of the workshop will be soon available, so stay tuned at:

<http://qualicheck-platform.eu/>

New BPIE report on "Indoor Air Quality, Thermal Comfort and Daylight"

This report deals with Indoor Air Quality (IAQ), thermal comfort and daylight requirements in Belgium (Brussels Region), Denmark, France, Germany, Italy, Poland, Sweden and the UK (England and Wales) and focuses on the respective building codes for new and existing residential buildings. More specifically, the publication aims at providing an overview of the regulatory framework for IAQ, thermal comfort and daylight, underlines the significance of having appropriate requirements for thermal comfort, ventilation and daylight conditions and concludes with recommendations for further policy development in respect to indoor climate.

The report specifically addresses building airtightness and gives an overview of the variety of approaches in the different Member States (MS). Main findings are summarised below:

- airtightness requirements differ largely over Europe: 6 out of the 8 surveyed MS already have precise values in place;
- indicators for airtightness vary throughout Europe (e.g. air changes per hour, litres per second per m²) as well as for testing conditions (pressure: 50 to 100 Pa);
- airtightness tests are required in France and Denmark (random check of min. 5%, all from 2015). For other countries, voluntary airtightness tests are common when applying for financial subsidies, high classes in energy performance certificates (EPC), etc.

The authors also recommend that stricter insulation and airtightness requirements be completed by appropriate minimum requirements for indoor air exchange and ventilation.

Download the full report at:

<http://bpie.eu/indoor.html#.VTnpdCGqgkr>

Outcomes of the 35th AIVC & 4th TightVent conference in Poznan: Summary of the airtightness track

Around 150 participants attended the joint 35th AIVC –4th TightVent -2nd venticool conference held in Poznan, Poland September 24-25, 2014.

The airtightness track of the conference consisted of 6 sessions with 26 presentations. Specific topical sessions dealing with airtightness included the following topics:

- Quality issues in airtightness testing
- Durability of airtightness
- Characterization of airtightness products
- Ductwork airtightness in new and renovated buildings

The article available at:

http://tightvent.eu/wp-content/uploads/2014/12/AIVC-2014_Airtightness-Track-Summary.pdf

summarises the main trends and conclusions addressed during the presentations and discussions in the airtightness track of the conference.

September 12-14, 2016: 37th AIVC – ASHRAE – IAQ joint conference Alexandria, VA, USA

The 2016 AIVC conference will be organised in collaboration with ASHRAE. It will be held in the Crowne Plaza hotel in Alexandria (10 km from Washington DC)

The Conference title is "ASHRAE IAQ 2016 Conference – Defining Indoor Air Quality: Policy, Standards and Best Practices."

More information will follow.

Certified Air Tightness Tester Scheme NSAI in Ireland

The National Standards Authority of Ireland (NSAI) operates a registration scheme that certifies testers to I.S. EN 13829:2000 - Thermal Performance of Buildings – Determination of Air Permeability of Domestic Buildings – (Single or Single & Multi) Fan Pressurization Method.

Under this scheme NSAI's inspectors:

- assess the operations and procedures of airtightness testers;
- witness an airtightness test against the requirements of I.S. EN 13829:2000;
- carry out an assessment of a number of airtightness test reports;
- ensure that appropriate records are maintained for completed tests;
- ascertain that test equipment is adequately maintained and under calibration;
- ensure that health & safety documentation is in place.

The NSAI Certificate of Registration is obtained once the tester is in compliance with the scheme requirements and is then approved by the inspectors.

For more information visit:

<http://www.nsa.ie/Agreement-Certification/Product-Certification-for-Air-Tightness-Testing.aspx>

Product news from our partners

Soudal

Soudatight LQ

Building contractors and professional end-users look for products that are reliable, user-friendly and time-saving at an acceptable cost. To match these typical requirements with the new demands on airtightness, Soudal developed Soudatight LQ, which will later be followed by Soudatight SP (sprayable version). Soudatight LQ is a fiber reinforced polymer dispersion, ready for use – to be applied with a brush and curing to an elastic vapour and airtight membrane which can be painted or plastered after drying. It is odourless, solvent free and low-emission (meets the EC1 Plus standard). It is used to be applied in and around window joints, floor-wall joints, wall-ceiling joints and roof joints. Due to the fibre structure, cracks up to a few millimetres wide can be sealed easily.

For more information visit:

<http://www.soudal.com/soudalweb/productDetail.aspx?w=9&p=231&ID=3659>



Figure 1: Soudatight LQ

See also :

<http://www.soudal.com/soudalweb/news.aspx?w=9&p=231>

retrotec

Retrotec Model 450-6 kg Commercial Duct Tester

Retrotec's Commercial DucTester and DM32-20 smart gauge make it effortless to test to any industry standard. Don't let its small size fool you, this duct tester creates up to 5000 Pa and will test 700 square meters of commercial ductwork. This system provides fully automated tests and custom reports to any industry standard.

For more information, visit the Retrotec website at:

<http://retrotec.com/>

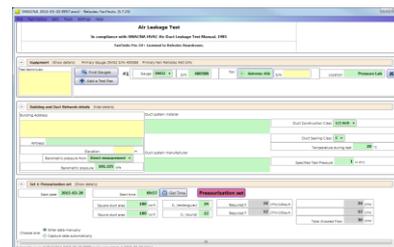


Figure 2: Retrotec Model 450, light, simple, portable and accurate

May 8-9, 2015: 9th International BUILDAIR Symposium, Kassel, Germany

TightVent is very pleased to continue its collaboration with BUILDAIR initiated in 2011. The BUILDAIR Symposium has been for over 20 years a major event on airtightness issues in Germany.

“The 9th International BUILDAIR-Symposium offers a variety of presentations and first-hand accounts of experiences in planning and practicing air tightness measurements, quality controls, thermographies and ventilation systems. The top conference in the field this year once again speaks to all practitioners as craftsmen, contractors, energy consultants, planners, and architects. In your contributions, you may pass on and explain basic as well as expert knowledge in the fields of airtightness of the building envelope, ventilation, and quality assurance.”

For more information visit: www.buildair.eu

Airtightness testing requirements for Passive House and EnerPHit certification guide

This guide recently released by Encraft, provides guidance for the specific airtightness testing requirements for Passive House & EnerPHit certification, taking into account the existing differences in the calculations and methodologies when compared to the UK Building Regulations. It includes information on the testing protocol, the volume calculation and the test method.

The use of Passive House components in refurbishments of existing buildings leads to extensive improvements in thermal comfort, economic efficiency, absence of structural damage and climate protection. Achieving the Passive House Standard in refurbishments of existing buildings is not always feasible. Therefore, the Passive House Institute (PHI) developed the EnerPHit for certified energy retrofits which, based on Passive House principles, calls for high quality energy efficient components and ensures that both the energy demand as well as the quality are future-proof.

The guide is available to download at: <http://www.ecraft.co.uk/wp-content/uploads/2015/03/Airtightness-testing-for-Passivhaus-projects.pdf>

Join us in TightVent Europe

TightVent membership is open to companies or association of companies in the field of airtightness; associations interested in or dealing with airtightness; and individuals.

Join us now with our world leading partners in building and ductwork airtightness solutions and testing to help raise awareness and foster new developments in policies, research and recommendations on airtightness. Contribute to TightVent activities or join our committee of airtightness associations to promote reliable testing and reporting procedures and to share experience on airtightness solutions. Join our club of members and have privileged access to our events and resources.

Events Calendar

- **May 8-9, 2015:** 9th International BUILDAIR-Symposium “Airtightness of buildings, thermography and ventilation systems in practice”- “Luftdichtheit von Gebäuden, Thermografie und Lüftungssysteme in der Praxis” in 2015 in Kassel, Germany. More information on: <http://www.buildair.de/>
- **September 23-24, 2015:** 36th AIVC – 5th TightVent – 3rd venticool joint conference in 2015 in Madrid, Spain on "Effective ventilation in high performance buildings". More information on: www.aivc.org
- **September 12-14, 2016:** 37th AIVC – ASHRAE – IAQ joint conference “Defining Indoor Air Quality: Policy, Standards and Best Practices” in Alexandria, VA. USA.

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