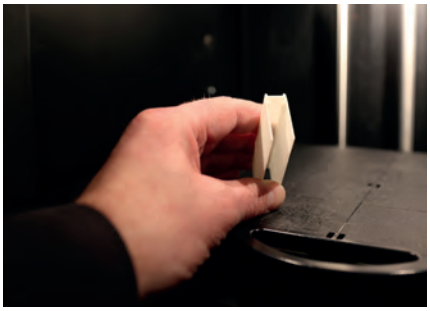
athmer

TECHNICAL CENTRE
DEVELOPMENT & INNOVATION

We offer you advice and support, development and testing!

ATHMER TECHNICAL CENTRE

Development & Innovation



Development & Innovation

New Technologies. New Requirements. New Standards. The world of doors is constantly changing – and we are actively involved in shaping this change.

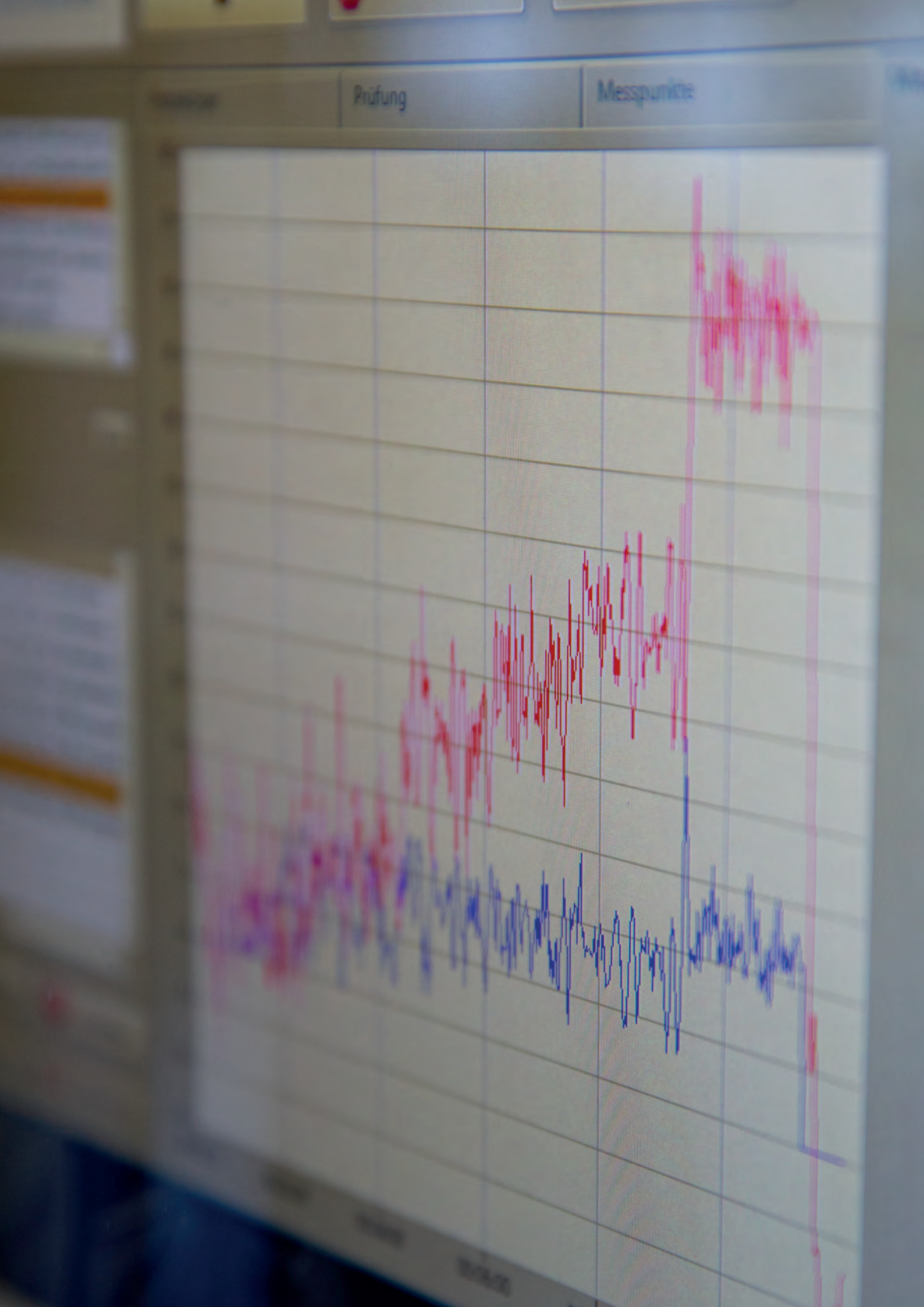
The technicians and engineers in our development team use the latest technologies – always with the aim of further improving the quality of our door seals and finger protection systems. More than 150 patents and registered designs worldwide clearly demonstrate our innovative capability.

To further strengthen this, we cooperate with renowned test institutes. Our engineers are also engaged in various standards committees of the German DIN standards institute. In this way, we are actively involved in establishing new standards in the world of doors.

We have also been a reliable partner for our customers for more than 60 years. For us, contracts and agreements apply without any ifs or buts.

We are committed to quality: Good doors deserve the best seals, and good customers deserve the best service.

In our Technical Centre, we test the sound absorption capacity of your products and their resistance to air, driving rain and wind loads. We support and advise you in the various stages of your product development – always with the aim of getting your product onto the market quickly, efficiently and with the highest standard of quality.


Prüfung

Cooperation

At the Athmer Technical Centre, we support you not only as a consulting service provider but also as a development partner: Applying an innovative and effective form of teamwork known as “concurrent engineering”, we work in parallel with you on your new product during the entire development process and, if necessary, involve your suppliers as well. This makes it possible to bring new products to the market directly and extremely quickly. High costs for faulty designs or repeat tests are a thing of the past.

On the basis of your concrete requirements profile, we start on the development work for your product, working in parallel with you. Once an initial product sample has been created, we check it in the Athmer Technical Centre for compliance with the desired properties.

In a series of development loops, we then continue to optimise the product samples. At the end of each loop, a further test is carried out in the Technical Centre. This allows us to see immediately whether we are on the right track, and to otherwise take immediate corrective action. Let us work together to develop your new product to market maturity quickly and cost-efficiently!

We provide you with support throughout the entire process by:

- developing your product in parallel (concurrent engineering)
- providing specialist advice in order to optimise product properties or materials
- having development tests carried out by the Technical Centre team and compliance tests carried out by ift West.

Your contact

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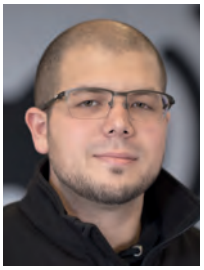
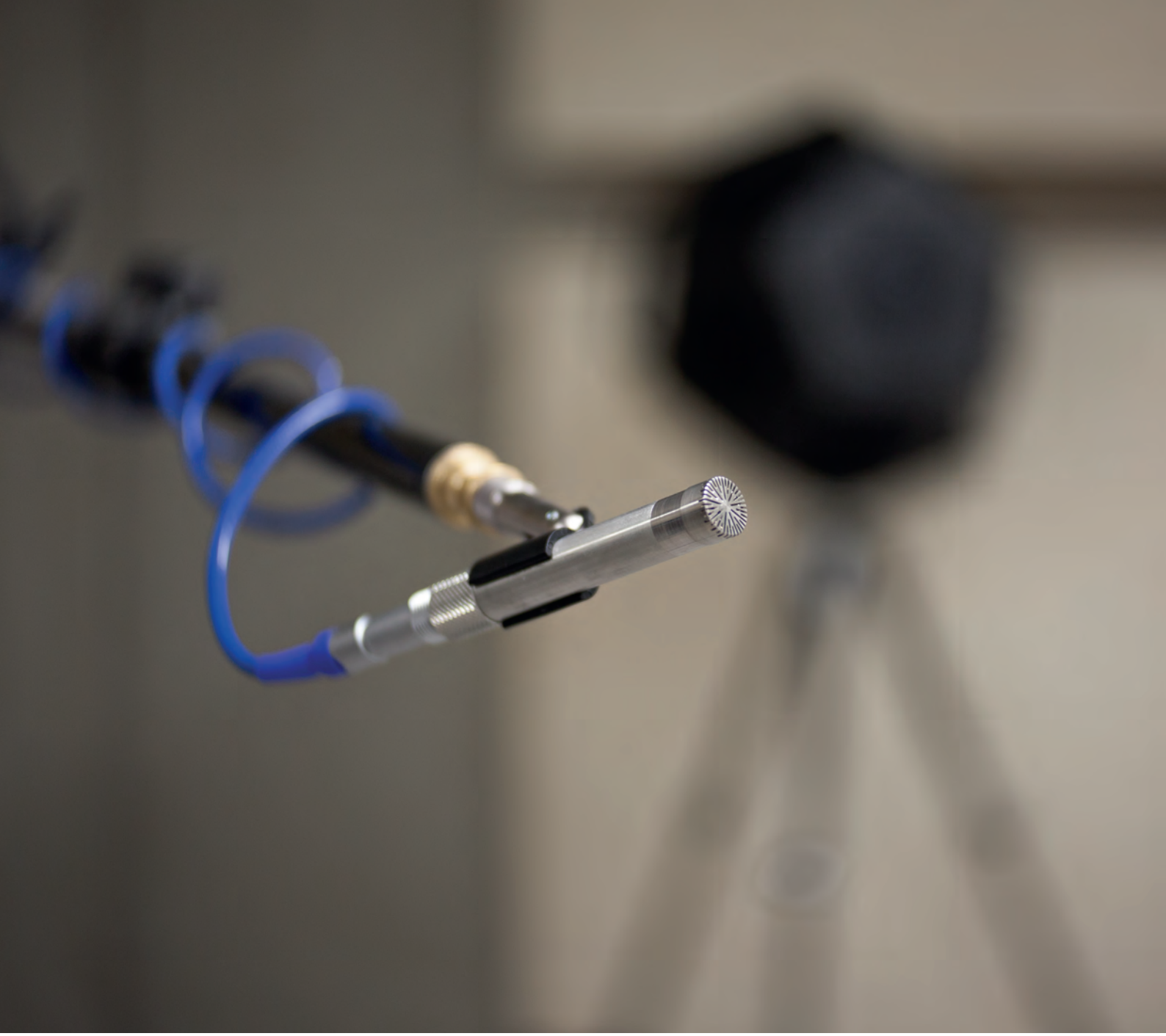


Sebastian Thiel
Air, Water, Wind Test Engineer



Acoustic testing facility

In our acoustic testing facility, we can raise the sound insulation values for joints and construction elements such as doors and windows. The laboratory meets the requirements of EN ISO 10140 and comprises three rooms which together form an L shape.

The acoustic signals from the two outer rooms are sent to the centrally located receiving room. The rooms are separated from each other by a modular partition wall system, in one case, and by a concrete wall, in the other case. Both walls have a test opening which can be quickly and flexibly adjusted to suit the element to be tested. This allows us to test components of all sizes.

The acoustic testing laboratory is monitored by ift Rosenheim, who also helped us to design the laboratory. The staff of this renowned institute determine the sound insulation values of your test object and carry out the final sound insulation test. We will be happy to provide advice on how you can optimise your products with respect to sound insulation. Give us a call!

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ROSENHEIM


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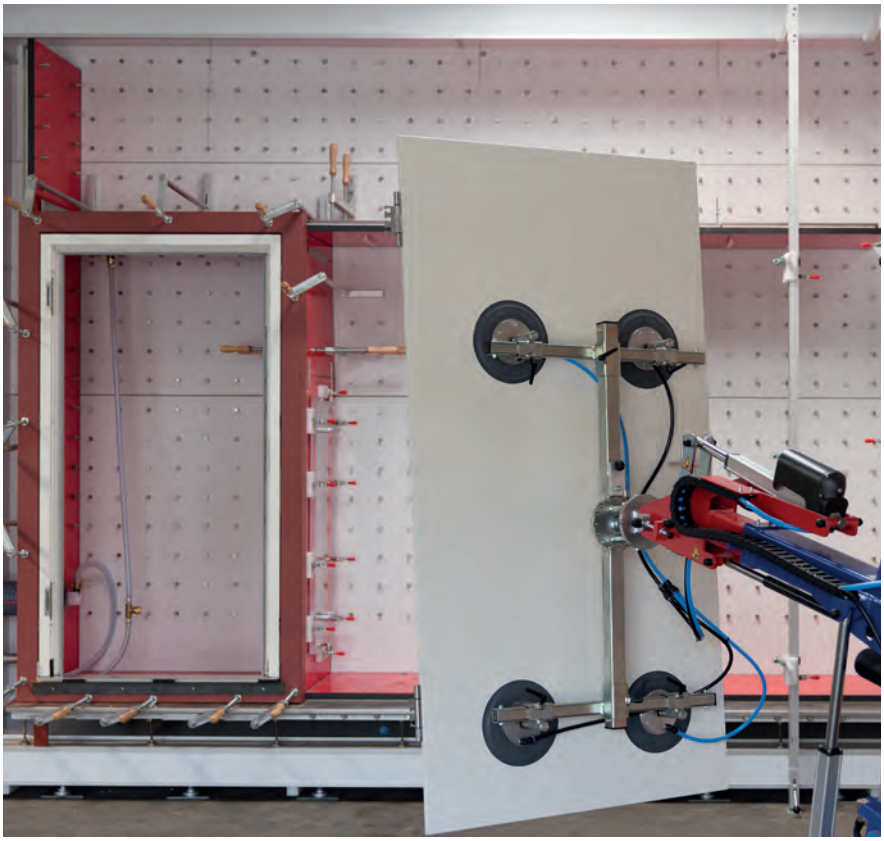
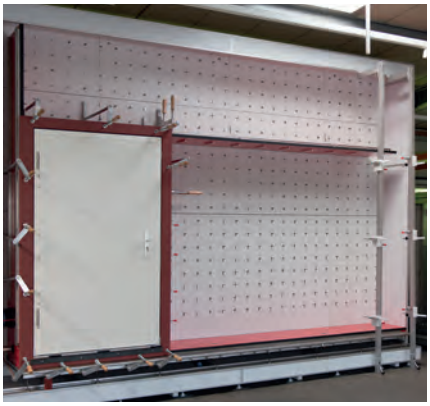
Air, wind and water testing facility

How airtight and watertight is your product when subjected to draughts, driving rain or high winds? Does it meet all the requirements? And what potential is there for optimisation? With the help of our air, wind and water testing facility, we provide you with the answers to these questions. For the purpose of the test, we fit your doors, windows, shutters or façades, for example, precisely into the twelve-metre-square test facility. A flexible grid system allows us to create a tailor-made frame for your product.
We then measure how the test object reacts to short blasts of air, to a constant air pressure or vacuum, and to persistent rain applied via several nozzles. Does it withstand the water? And does it deform under an air pressure of up to 700 pascal? Thanks to our fog machine, we are also able to test for leaks.
Our air, wind and water testing facility complies with the requirements of standards DIN EN 1026 and DIN EN 1027. It is calibrated annually by an independent laboratory.

Naturally, we also advise you on how you can further improve the air and water tightness of your products. Please give us a call!





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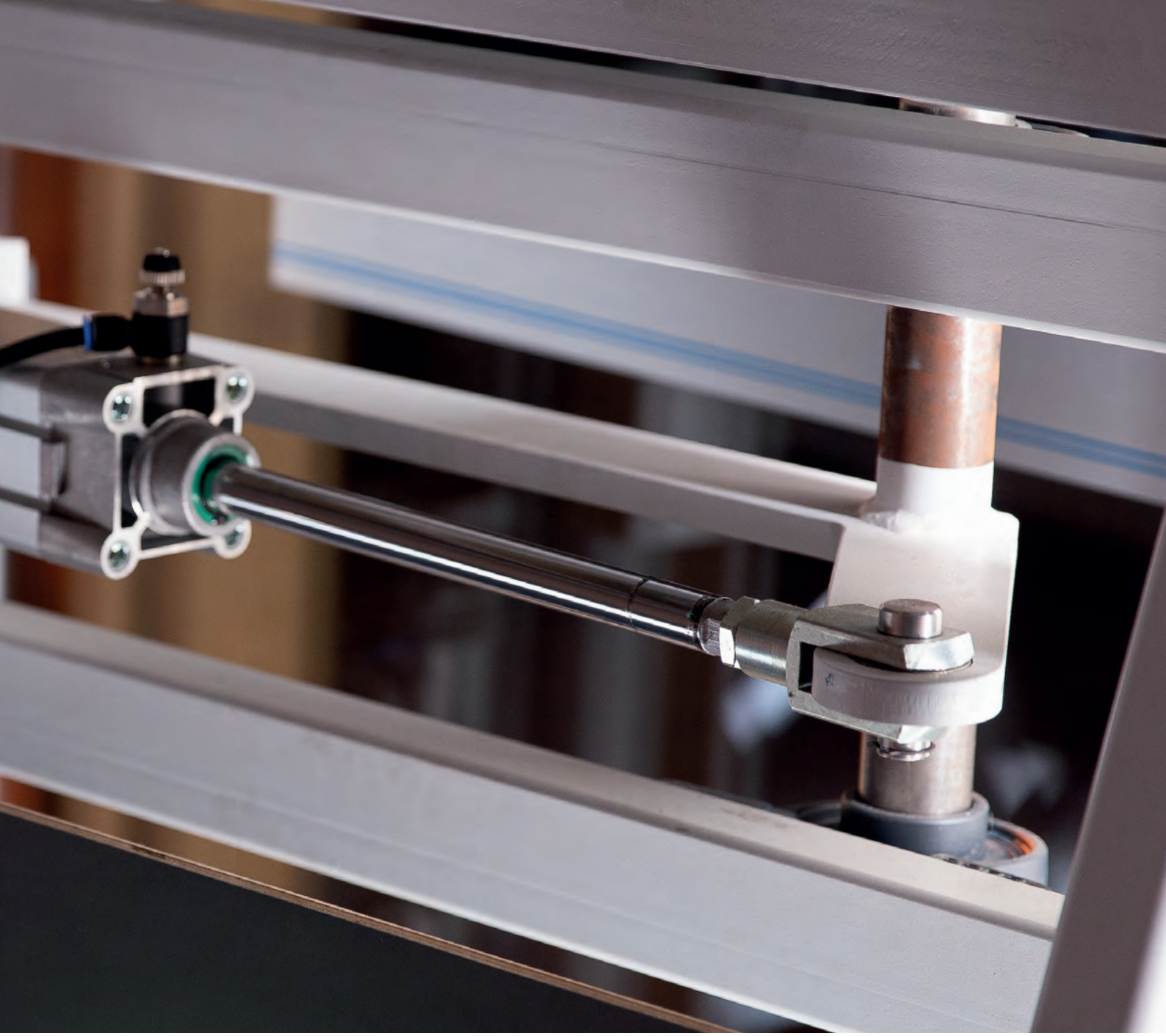


Endurance testing facility

Do your doors stand for quality and durability? Do you know whether your products are able to withstand permanent loads, without any damage and while remaining fully functional? At the endurance testing facility of the Athmer Technical Centre, we give you assurance and certainty. As a result, your customers can also be sure that your products will keep on doing their job for many years, making them a long-term and safe investment.

Open, close, open, close - according to the applicable standards EN 1191 and DIN 4102-18, we test how your single-leaf or double-leaf door behaves under conditions of repeated opening and closing. To do this, we load your product into the test device and expose it to permanent loading. An engineer regularly records any abnormalities in the log: Are the required operating forces increasing? Does the material show signs of fatigue? Or does the closer fail? To successfully pass the endurance test, interior doors must complete 200,000 and exterior doors 20,000 test cycles without any problems.

After the test, you will receive a detailed test report from us, which we use as a basis to advise you, for example, on the selection of seals for your products.

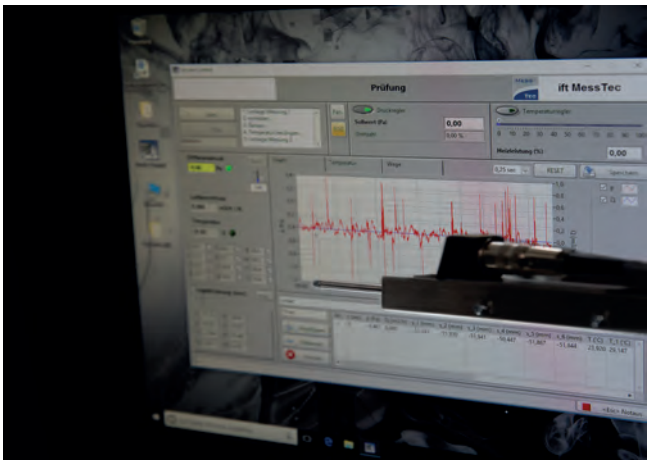
Smoke protection testing facility

Smoke protection doors can save lives. To achieve this, they must effectively prevent dangerous amounts of toxic smoke from entering a room or from spreading to other rooms. To find out whether your product optimally meets these requirements and complies with the applicable standards DIN 18095 and EN 1634, we will subject your single-leaf or double-leaf door to a smoke protection test at our Athmer Technical Centre.

Using mechanical clamping elements, we fasten your product in our smoke protection testing facility. There, it has to prove its functionality: Smoke-tightness is tested at ambient temperature and at an elevated temperature of 200 degrees. Furthermore, we determine whether the element undergoes deformation.

The test object meets the standard if its leak rate is less than 20 m^3/h for single-leaf doors and less than 30 m^3/h for double-leaf doors. In addition, smoke protection doors must also pass an endurance test.

We will be happy to advise you on how you can further improve the smoke protection properties of your new product.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Burglary testing facility

Although the number of successful burglaries has dropped in recent years, the proportion of failed burglary attempts has been rising steadily. Currently, about 45% of the attempted burglaries in Germany fail, not least because of improved security measures. The effectiveness of entrance doors, windows and other components in protecting against burglary is therefore becoming increasingly important as a quality feature and a selling point.

What is the situation regarding your product in terms of burglary protection?

At our Technical Centre, we conduct tests, according to the applicable standards EN 1628, EN 1629 and EN 1630, to determine how well your product withstands manual burglary attempts and how it reacts when exposed to dynamic and static loads.

For this purpose, we clamp your doors, windows, curtain walls, grid elements or closures into our testing facility. In the initial static test, a compressive force, depending on the resistance class, of up to 15 kN is applied at defined loading points. After that, we check whether the product withstands repeated impacts from a 50 kg pendulum. Finally, we test the resistance to manual burglary attempts. To this end, an employee carries out the test – with the relevant tools and time specifications. Here, the test object must meet the requirements of the desired resistance class.

Finally, we evaluate your test object and provide valuable information on how you can further optimise your product with regard to burglary protection.

J C S

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