

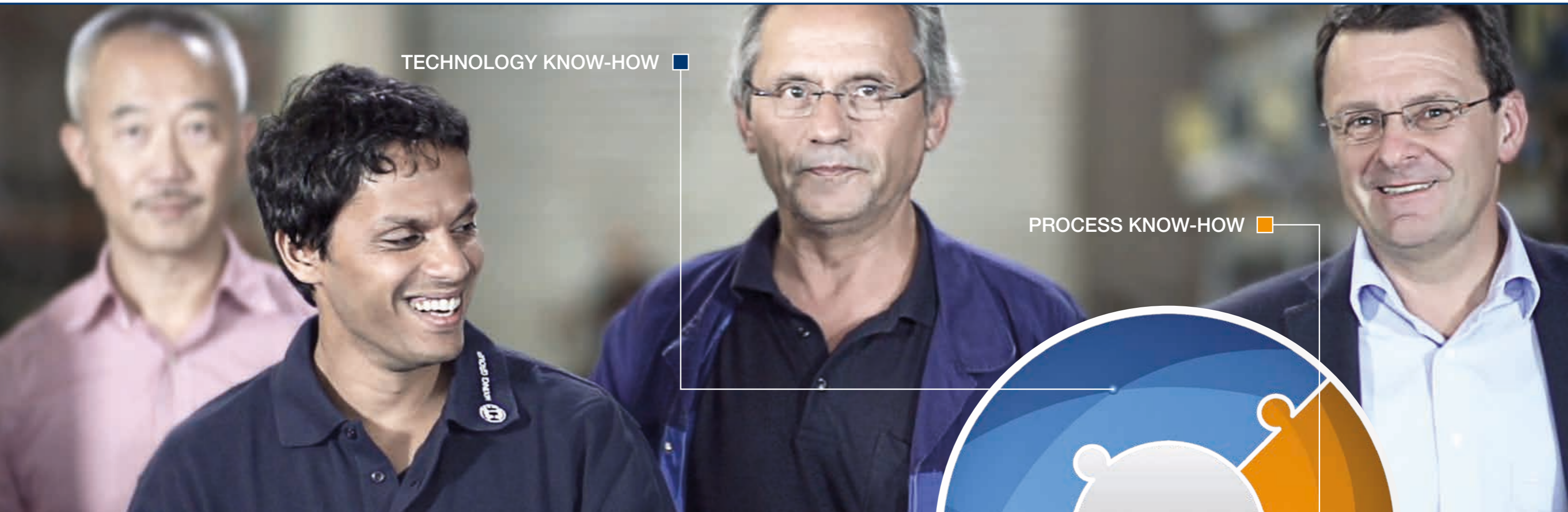


# MIXING GROUP

Technical Center



**TECHNICAL CENTER –  
PURE COMPETENCE IN PROCESS & TECHNOLOGY**



TECHNOLOGY KNOW-HOW 

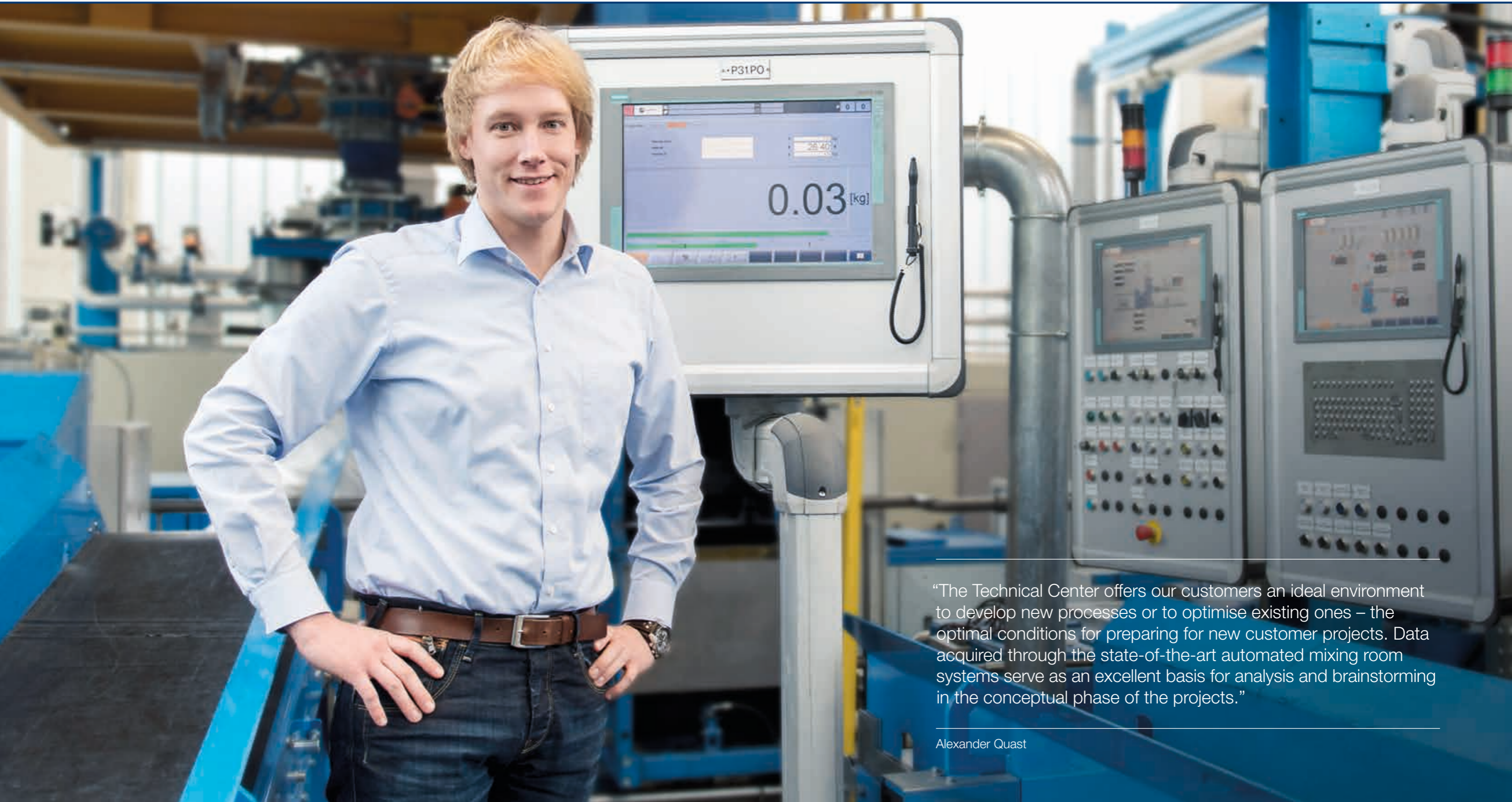
PROCESS KNOW-HOW 



## THE COMPETENCE EXPERIENCE

For over 150 years now, the companies of the HF MIXING GROUP have been developing the best technologies for the polymer processing industry. Our competence is part of a long tradition. Now we would like to bring that competence to life for you – regardless of whether you already use our machines or have yet to take a final decision on a pending acquisition project.

In much the same way that automobile manufacturers give you the opportunity to take a test drive, we invite you to test our machines under actual production conditions. To that end, we have established the most modern Technical Center in the industry for you at our Freudenberg site: a fully equipped mixing room with a laboratory area, two complete intermeshing and tangential production lines along with state-of-the-art weighing technology and a laboratory sheeting and mixing mill.



“The Technical Center offers our customers an ideal environment to develop new processes or to optimise existing ones – the optimal conditions for preparing for new customer projects. Data acquired through the state-of-the-art automated mixing room systems serve as an excellent basis for analysis and brainstorming in the conceptual phase of the projects.”

Alexander Quast

## IDEAL PREPARATION TO HELP YOU ACHIEVE OPTIMAL RESULTS

Applications are becoming more and more complex, thereby raising the importance of testing. We address that trend. The HF MIXING GROUP Technical Center gives you the opportunity to conduct tests on a production scale, on a laboratory scale and as a simulation.

Our experts are there on site, ready to help you with the complete planning of the tests. Prior to testing your recipes on the production line, you can do so using smaller quantities of material in the laboratory area of the Technical Center. The following laboratory machinery is available for these lab experiments as well:

- Tangential mixer GK 4N
- Intermeshing mixer GK 5E
- Laboratory sheeting and mixing mill  $\varnothing$  300 x 700 (downstream equipment)





“We not only build machinery, we also advise our customers. Working together with them, we always find the best solution. The Technical Center, which has been specifically designed and built for this purpose, represents an important step toward achieving that end. Our process specialists can carry out development work here together with their customers’ experts.”

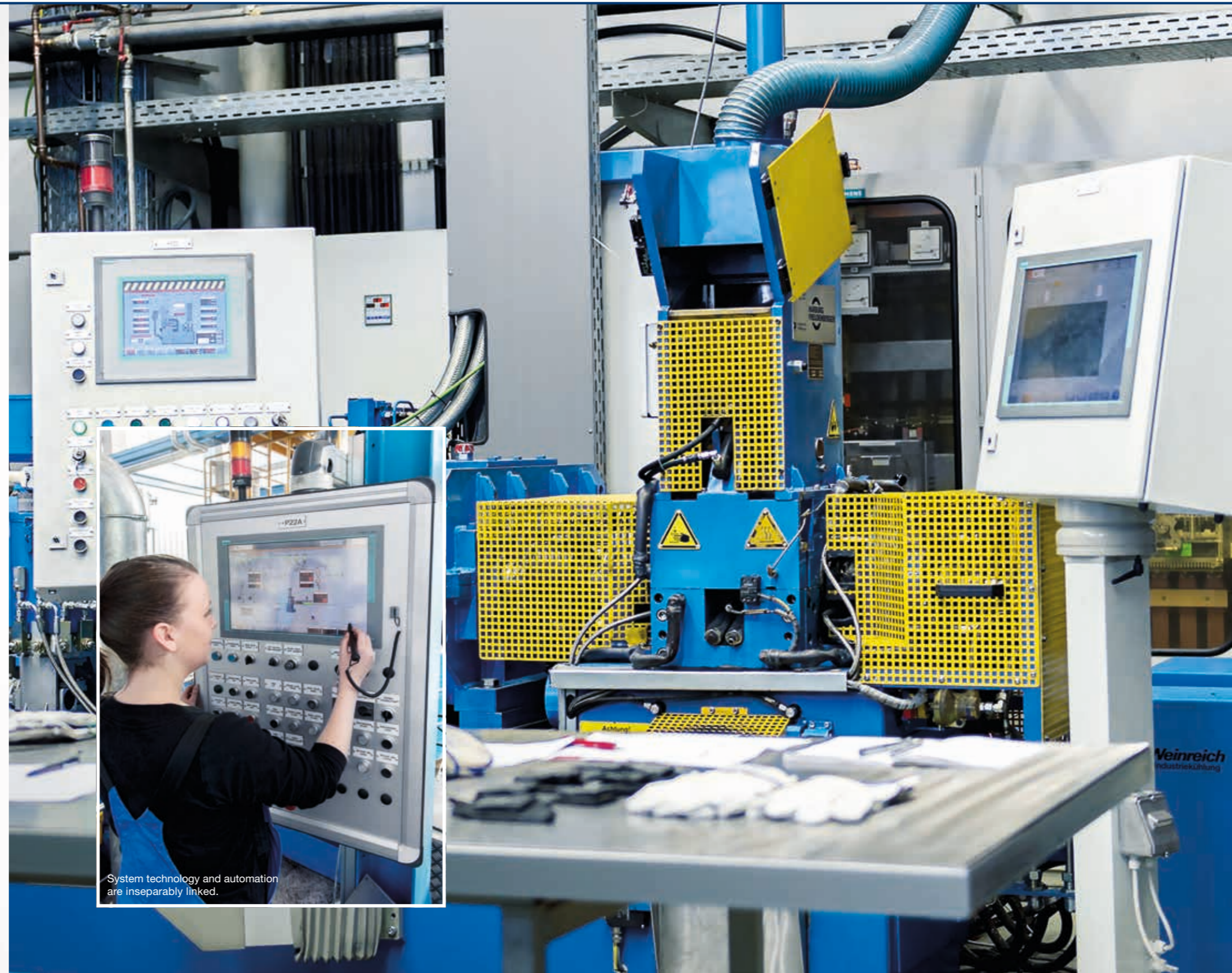
Mark Meulbroek

## SOPHISTICATED SOLUTIONS FOR EFFECTIVE TEST CONDITIONS

We know the processes and requirements of the polymer processing industry. They served as the basis for the conceptual design of the Technical Center, thereby enabling us to create a realistic production environment and optimal test conditions.

The programming of the processes – from weighing out the individual raw materials to mixing them in the laboratory equipment – is fully automated using our in-house automation system ADVISE® ES. Decoupled weighing technology and a dedicated weighing room ensure optimal production conditions.

The building that houses the Technical Center has no columns and features energy-efficient construction. As with our machines, here too we have focused on sustainability.



System technology and automation are inseparably linked.

## REAL PRODUCTION CONDITIONS PERMIT RELIABLE RESULTS

Once the requisite quality has been achieved in the laboratory, the processes are scaled up to the production equipment. Here the Technical Center provides all of the possibilities of a modern mixing room.

Depending on the specific needs, test runs can be performed under near-production conditions on the tangential or the intermeshing mixer line. All of the equipment is linked to our in-house ADVISE® automation system, in order to ensure that you obtain reliable and robust results.

The following equipment is available for testing:

- BN 20N mixer (tangential rotor system)
- IM 45E mixer (intermeshing rotor system)
- UMIK 80 TSS mixer  
(universal mixer without forced supply system)
- Batch transport system for free selection of downstream aggregates
- ø 550 x 1500 production mixing rolling mill (downstream aggregate)
- CONVEX 2 twin-screw extruder (downstream aggregate and slotted nozzle/ underwater pelletising)
- Batch-off system for cooling the mixing skins



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“Our Technical Center will soon be adding value in multiple senses of the word. By carrying out technical analyses of processes, we can demonstrate to our customers the latest system solutions for their applications in practice. It also allows us to carry out experiments, so we can stay abreast of the latest developments in rubber technology and automation.”

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Maik Rinker





## PROCESS OPTIMISATION THROUGH EXACT ANALYSIS AND REFINEMENT

Joint development or optimisation of your processes on our equipment is extremely important to us. In order to ensure ongoing control of the tests, the Technical Center is equipped with its own test lab. Our experts there provide support throughout the test series and suggest optimisation measures.

Upon completion of the tests, our staff analyses the test data and prepare reports for you. As a result, you receive optimal information on which to base your formulations and mixing processes. And that, in turn, enables you to manufacture products at your own facilities sooner and more efficiently.

With our Technical Center, we offer you absolute investment security, the ability to conduct feasibility studies, and the opportunity to get your employees qualified. We look forward to your visit!



Joint optimisation of processes is a key aspect of the work at our Technical Center.



“With the Technical Center, we demonstrate our system competence. It allows us to carry out R&D projects on a real mixer line, in order to be able to investigate interactions between system components. In addition, the Technical Center offers outstanding training opportunities for our employees and for those of our customers.”

Dr. Andreas Limper

## EXPERTISE THROUGH KNOW-HOW



View our expertise videos on  
[www.hf-mixinggroup.com/en/group/our-expertise](http://www.hf-mixinggroup.com/en/group/our-expertise)

### Process +

#### EXPERTISE IN OPTIMISING OUR CUSTOMERS PROCESSES

Working with you to develop and optimise your processes is important to us so we set up the industry's most modern Technical Center in Freudenberg. In its fully equipped mixing room you can test our products under real-life conditions and get expert advice from our process specialists.

### Solution +

#### COMPREHENSIVE EXPERTISE FOR CUSTOMISED SOLUTIONS

With more than 150 years of experience, the HF MIXING GROUP are the engineering experts for the polymer processing industry. Our experts are highly skilled in manufacturing and production processes and work with customers to develop the best individual solutions for them.

### Comfort +

#### PRAGMATIC SOLUTIONS

Our corporate values guide us however we are not tied to fixed principles. We solve customer problems in a pragmatic and methodical way.

### Direct +

#### EXPERIENCE OUR COMMITMENT

Direct contact between ourselves and our customers base is something of priority. Commitment, fast response times and availability are important pillars of the service we provide.

### Safe +

#### A SUSTAINABLE APPROACH FOR SAFE AND SECURE PERFORMANCE

Our approach to business is based on sustainability and the long term. This means being available to our customers at all times and providing lifetime servicing and replacement parts for our products.

[www.hf-mixinggroup.com](http://www.hf-mixinggroup.com)