

The magazine for clients and friends of Brabender Technologie GmbH & Co. KG

# FLUX

**/04** Exhibition K –  
Positive Views

Brabender Technologie impressively exhibits its innovative resources.

**/10** Getting into Fibers

The new fiber feeder, FiberXpert, also doses long-fiber materials.

**/14** Firmly on the Ground

The flat-bottomed feeder, FlatTwin, was developed for pharmaceutical clients.



# FiberXpert

## > editorial



### **HORST VOHWINKEL**

General Manager  
Brabender Technologie  
GmbH & Co. KG

### **BRUNO DAUTZENBERG**

General Manager  
Brabender Technologie  
GmbH & Co. KG

Dear business partners, dear colleagues,

K years are always particularly special. The entire industry rides the wave of exhibition euphoria; each company aiming to sail above the rest. This year, we are proud to introduce real innovations with the fiber feeder FiberXpert and the flat-bottomed feeder Flat-Twin, which were both met with great interest. Needless to say, we will be presenting both models to you once more in this issue.

The second biggest event of this year was of an internal nature: In the run-up to the exhibition our employees from abroad were invited to a joint meeting. We regularly conduct large training events in order to ensure equal standards for our clients around the world. For this purpose our employees are all linked through internal networks, easing their workload and strengthening their connections with each other.

We would like to wish you a peaceful holiday season and a prosperous start to the new year!

Kind regards,  
Horst Vohwinkel and Bruno Dautzenberg

# FLUX

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# Exhibition K – **POSITIVE VIEWS**

**>** This year, the leading worldwide exhibition for the plastics and rubber industry, the K in Düsseldorf, surpassed all expectations. The industry is currently in great shape, with a growing worldwide and high-quality business-to-consumer market. Brabender Technologie also impressively exhibited its innovative resources at this year's K, and was subsequently rewarded with a surge of interested new contacts. >



# brabender TECHNOLOGIE



WIDE RANGE

Bruno Dautzenberg, General Manager of Brabender Technologie, provides an initial review: "We have recorded a pronounced increase in exhibition contacts – roughly 20 percent more than in K 2013. As a consequence of this, we have a very high quota of new contacts and significantly more concrete enquiries. Even we were astonished by this."

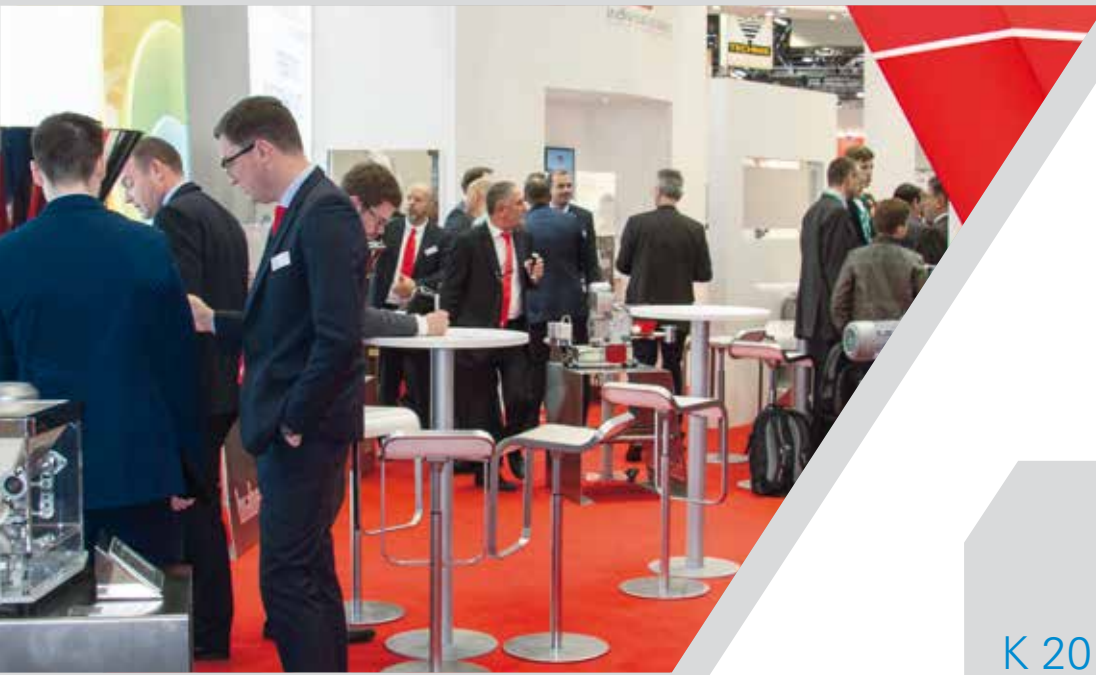
One third of enquiries came solely from visitors and clients from German speaking regions. Though there was also a notable increase in the share of international visitors. Klaus Donsbach, Public Relations Manager, added: "No region emerged as especially strong, aside from the consistently strong India. Interestingly, there was a very encouraging visitor response from China. However, as is well known, the Chinese market is covered by its own exhibitions." >







"Pictures of an exhibition" K 2016 on the Brabender Technologie stand



## INFO

### K 2016 – IN A NUTSHELL

Brabender Technologie presented itself at the leading worldwide industry exhibition from 19<sup>th</sup> to 26<sup>th</sup> October 2016 in Düsseldorf as one of the 3,285 exhibitors from the plastics and rubber industry. They brought: triple innovation power with FiberXpert, FlatTwin and a control concept, abundant motivation and an outstanding atmosphere. 230,000 industry visitors from over 160 different countries visited the K throughout the eight days – an increase of roughly 5.5 percent in comparison to 2013. An increased quota of new international exhibition contacts was also acknowledged by Brabender Technologie – many of these with specific interest.



The exhibition crew at K 2016

### **The innovations: FiberXpert, FlatTwin and control**

Brabender Technologie demonstrates high innovative strengths with three innovations, exhibited by the Duisburg specialist in feeding, weighing and discharging of bulk materials. As expected, the fiber feeder FiberXpert and the flat-bottomed feeder FlatTwin have both incited interest and purchasing intentions. As Brabender Technologie always develops innovations to closely fit the requirements of clients and the market. Both devices will be separately introduced in this FLUX issue. The third innovation, the new control system, promises a big step into the future.

“Our new fiber feeder FiberXpert has really gained a foothold. We have received an enormous amount of enquiries specifically for this device. It is remarkable that we were able to gain considerable interest from the research and development sector in addition to the industrial users. This particular new development came at precisely the right time. There was also interest from universities and research institutes, for whom an innovation such as FiberXpert should deliver new results.

In our view, this confirms that we have struck a current topic of the future”, explained Bruno Dautzenberg.

What’s more, the second new introduction, the flat-bottomed feeder FlatTwin, was very well received in design and engineering by the pharma industry clients. Now, in the months following the exhibition, it will be further optimised and achieve market maturity in 2017.

Visitors and clients were able to experience the third new development, the new control concept, live in a demonstration: The reactions: overwhelmingly positive. The clients: won over. “It’s important to keep your finger on the pulse of the market. That’s why we reviewed our investment programme for the exhibition and thanks to much positive feedback we quickly reached the decision that the right idea is headed in the right direction”, explained Klaus Donsbach.

### **Service seminar and representatives conference**

In the run-up to the exhibition, two particular highlights took place. During a five-day course,





The multi tool exhibits important production and control units.

Brabender Technologie gathered those responsible for all of the service units from each operating region. Ralf Eikermann, customer care leader, helped to organise the meeting which takes place once every three years: “Here we have practically all of the service leaders who work for Brabender Technologie around the world, with us in Duisburg. This is an event that does not only encourage a sense of community, but it also plays an important role in training and exchanges.” The second event of the two days in the run-up to the exhibition was an additional representatives conference, carried out by Brabender Technologie for the leaders of subsidiaries and international representatives. This was also a great success. You can learn more about it in this issue.

The dates for the next K event in three years’ time have already been announced. Brabender Technologie will once again put forward innovations from 16<sup>th</sup> to 23<sup>th</sup> October 2019 and be a visitor magnet for an international audience. As a visit to K is simply indispensable for those who wish to remain competitive! ■



# GETTING into fibers

Fiber feeder FiberXpert opens up new paths for processing long-fiber materials.







**There are many fibers with great characteristics: Glass or carbon fibers, for example, are reinforced in plastic compounds, something made use of in the car industry for dashboards and other components. Wood flour can also be modified with plastics or serve as a filler. One thing all fibers have in common is that they aren't easy to feed.**

“Many problems disappear over time, for example the twining of glass fibers due to friction in the tube extruder”, reports Norbert Marek, the idea generator for the development. “But one problem remains: fiber length. Brabender Technologie has now found a fitting solution for this as well.” The new innovative FiberXpert dispenses both long and irregular fibers, whilst ensuring they do not intertwine or knot. Consequently, this enables the precise dispensing of natural fibers, wood fibers, carbon fibers and also film shreds, something which caused a stir with its first appearance at the K in 2016.

#### **New application possibilities**

There is already an initial client: He uses the fiber feeder for dispensing crushed film shreds from the film edge trim. They arise from the manufacturing of plastic film, whereby the

edges are cut-off in the polishing stack. “The top priority was saving raw materials. With film manufacturing, ten to 30 percent of sorted waste is accurate, and its further utilisation was previously very complicated”, Norbert Marek explains the motivation of the clients. “The new device enables us to lead the film waste back into the process chain as flakes.” This saves resources and optimises the manufacturing process.

There are plenty of further possible applications, for example natural fibers. This irregular material can be dispensed reliably, precisely and continuously for filler material or wood plastic composites. The new device is also able to solve the recycling problem for carbon fibers. They will be laminated onto components to strengthen a part. Thereby the regular remaining pieces are accurate, causing costly waste disposal costs. With the FiberXpert the remaining pieces and also recycled fibers can be used again and again.

#### **Operating mode**

The dispensing of long fibers is made possible through the use of a special fiber screw, a steep face tank and a special agitator geometry and placing. “This unparalleled and innovative





The fiber feeder FiberXpert also dispenses long and irregular fiber, ensuring they do not intertwine or knot.

development causes a pressure filling of the screw”, explained Norbert Marek. As the flow characteristics of products often vary, a specific design was implemented. The company remains silent on the precise design of the feeder.

In contrast, the relevance of control for a safe-functioning fiber feeder is no secret. The relationship between the screws and the agitator speed is essential “Our Controller CM plus and CB are responsible for that”, stressed Norbert Marek. The specific relationship between screws and agitator can be individually determined in trials at the technology centre and be readjusted upon start-up.

### Hitting the market nerve

“We are sure that this innovation has hit the nerve of the market”, according to both General Managers Horst Vohwinkel und Bruno Dautzenberg. “With this device we solve a well-known feeder problem and open new processing routes for materials previously considered non-dispensable.” ■





# Firmly on **THE GROUND**

The specific requirements of pharmaceutical clients came selectively to the forefront for Brabender Technologie during the development of the flat-bottomed feeder FlatTwin.

**Production processes in the pharmaceutical industry are subject to strong regulations, which also place the highest requirements on the dispensing technology. Therefore, in addition to the double screw feeder from the standard programme, Brabender Technologie developed the flat-bottomed feeder "FlatTwin" for dispensing powders in pharmaceutical application. The feeder is the result of close collaboration with the clients.**

"We have realised what the market wants", Ralf Kanter confirms the motivation behind the development of a flat-bottomed feeder. Along with Robert Fedges, his colleague in engineering, he first presented the previously undisclosed innovation to a broad expert audience, including separate representatives, shortly prior to the K plastics exhibition in Düsseldorf. Ralf Kanter explains: "The proven mechanics of the stirring agitator within the existing twin screw feeder do not fulfil the specific requirements of the pharmaceutical production in all applications." The new flat-bottomed feeder, with the name FlatTwin and expected to reach market maturity in the second quarter of 2017, manages the balancing act over many different powder dispensing areas: for example in the production of medicinal products with delayed-release for implant rods.

**Gravimetric feeding system, material flow without mixing**

"The client assumes, without articulating it, the precise feeding with integrated digital load cells", explains Ralf Kanter. Robert Feldges adds: "The material is weighed and fed based on mass." All uses of the FlatTwin share the common feature that the powder may only be minimally or not at all mixed. Therefore, conventional agitators do not come into question. In contrast to



The new flat-bottomed feeder FlatTwin feeds powder for pharmaceutical products.

the twin screw feeder from the standard programme, in the flat-bottom of the device the powder filling the tank is lifted by an embedded horizontally turning agitator. This movement and the resulting material flow, “first in – first out”, prevents or largely prevents mixing – a significant difference to conventional operations. Two concave screws with a 20 millimetre diameter, found in a trough under the flat-bottom, transport the material further to the vertical outlet, which can be found in the right angle on the screw tube. The dispensing capacity is the result of motor equipment and the size of the tank (six to 140 cubic decimeter per hour). In this way, the size of the tank is orientated around the client’s wishes.

**Simple handling as a requirement**

“The cleaning and disassembly, and also assembly, of a feeder for pharmaceutical purposes must be possible under harsh conditions”, Ralf Kanter further explains the key focusses of the development. “For instance, we find this framework in the containment department, where the workers must operate the device wearing firmly installed gloves. If they were able to disassemble the device without the use of tools, to clean it for example, the work process would be optimised”

With its parts made from high-quality stainless steel, the FlatTwin addresses this: Its cap is attached to the tank with four easy to turn brackets. To remove the agitator unit from the flat-bottom the plug needs to be unscrewed – also using a simple twisting motion. This has the additional advantageous effect of removing the entire screw tube together with the screws inside as a whole for cleaning. Material residues would no fall out and be lost during cleaning.

**Client proximity as driver of innovation**

The FlatTwin was developed in close collaboration with users who are in a constant constructive exchange with Brabender Technologie. That’s also going to be the case in the future. Ralf Kanter explains the philosophy of the firm:

“We always have ‘an ear on the market’ and listen to it carefully. Through this we find out what is needed and what we can improve.”

“We also establish client proximity for the completion of documentation”, explains Robert Feldges. “We give clients all of the necessary documents complete and correct which they need for examination by the authorities for their production to be approved. Alongside operating and maintenance manuals, and material certificates, this also includes specific certificates. When it’s required, the client can also receive, for example, a surface area certificate or documents for exporting welders from us.”

Apparently those responsible at Brabender Technologie have hit a nerve with the new “family member”. Even if a few months elapse before market introductions, the positive reactions from the clients at the Düsseldorf exhibition prove that Brabender Technologie is heading in the right direction with FlatTwin. ■



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# JOINT MEETING: Internationally connected

Prior to the K exhibition, in October Brabender Technologie invited all those responsible for service, sales and business leadership to the international summit meeting in Duisburg.





As the saying goes, the third time marks a tradition. From this perspective, the service seminar is an institution by now. All worldwide service leaders first met in 1998, at that time only a small group with six participants. Those responsible for service established the event to take the ever growing globalisation of Brabender Technologie into account and to initiate a very successful personal exchange amongst all Brabender Technologie service leaders. >



### Service seminar 2016

18 years later, Brabender Technologie is able to look back upon an array of intensive, constructive and cooperative seminars and conferences, which, above all, have developed close relationships. Everyone knows one another, everyone communicates and will usually find that the problems they are having are universal. Established contact simplifies exchanges and helps to offer an outside perspective to certain experiences, and to categorise them accordingly. Last but not least is the formation of a community spirit amongst the leading employees around the world.

In the initial years, service seminars took place on an annual basis, with the three year pattern first established in the run-up to the 2013 K

exhibition. 27 service leaders and technicians from all sales regions travelled to this year's seminar. Ralf Eikermann, customer care leader, explained for the team of organisers: "Participation in the service seminar is not obligatory. Despite this, all participants enjoy coming as the active exchange amongst the people is highly important to them."

In the evenings there are sporty events such as bowling, social events such as the visit to the König brewery in Duisburg or events with a more informative tone, such as the gasometer exhibition in Oberhausen. Nevertheless, Ralf Eikermann stresses: "We do not just want to strengthen personal relationships, we also want to improve specialist training and content ex-

"The participation on this seminar is simply a must if you want to be technically updated. The service seminar also provides certain advantages for sales persons."

Kamran Bigham,  
Brabender Technologie,  
MIDDLE EAST

"The service seminar was a great opportunity to get more knowledge, share experiences with colleagues and to cultivate the company culture of Brabender Technologie."

Eduardo Carvalho Santos,  
Technoservice,  
BRAZIL

"The service seminar is always an interesting learning/update process. It has been a pleasure to share a moment together where school and relax time were well mixed."

Gian Luigi Cassera,  
DeAmici,  
ITALY





changes.” Therefore the five days are always well packed with content. For instance, this year the line up included new control components along with accessories and their connection to the main computer, practical exercises for the “SmartService” maintenance software, the new “FiberXpert” and “FlatTwin” feeders, the food feeder for dried fruit and also a visit to the new K49 construction.

**Representatives conference 2016**

Exactly like for the service seminar, Brabender Technologie gathers it is representatives from all subsidiaries and offices worldwide every three

years for the two days prior to the K exhibition – this year there were 47 participants.

At the start, general managers Bruno Dautzenberg and Horst Vohwinkel took all participants to the same stand and simultaneously cast a glance over the recent company developments. Bruno Dautzenberg and Bernd Hüppmeier, sales manager for Germany, Austria and Switzerland, summarised the developments and trends of their respective markets most asked by the representatives and added a small analysis. Additionally, certain innovations were introduced by the responsible engineers

and sales employees, and exhibited for personal assessment.

The first day was rounded up with a workshop as well as the extranet – an information platform for the worldwide representative and subsidiaries of Brabender Technologie, forming part of the company’s online communication structure. The conference culminated with a tour of the new K49 construction.

Many positive reports from this years participants highlight that the organisers found the perfect balance for the service seminar and representatives conference. ■

“Once more I really enjoyed myself participating in the service seminar. The topics were very informative, the speakers who introduced the new matters really motivated us, and the evening programme was very well organised.”

Sepp Keller,  
Keller Prozesstechnik,  
SWITZERLAND

“The service seminar is an essential way to continue our learning and understanding of the Brabender family of controls and feeders. This enables us to perform our duties both effectively and efficiently.”

Neil Eardley,  
Genesis Process Solutions,  
GREAT BRITAIN

“The opportunity to meet fellow Brabender service engineers and representatives from around the world and share experiences with one another was extremely beneficial to my continued growth in my career as a service technician.”

Brad Morris,  
Brabender INC.,  
CANADA

“We were able to personally verify how much Brabender Technologie has invested in further development. This enabled us to have a close look at several new facilities that will benefit service in China. We are proud to be a member of the Brabender group!”

Mu Dongyi,  
Brabender Technology (Beijing) Co., Ltd.,  
CHINA



# Service in China: **THE HUMAN FACTOR**

There is no questioning the fact that China is a special and exciting market. When sales began in Asia approximately 35 years ago, Brabender Technologie had already initiated business with Chinese clients, and one thing quickly became clear: The potential for Brabender Technologie's special technology is enormous.

**When the first German extruder manufacturers started their business in China, they installed feeders from Brabender Technologie. The service remained in their hands, and since then technicians have often travelled East to operate, maintain facilities, and to train workers on-site.**

The cultivation of personal networks plays an important role in the Chinese business world. Anyone who has ever had anything to do with business in the People's Republic will recognise the importance of: First pleasure, then business, and they would know: Guanxi. This word with many complex meanings is used to describe how personal public relations are formed, and why they are important, amongst other things. Because in China, business is solely carried out on an interpersonal level. Contracts and agreements are classified as a common thread, enabling the involved parties to often deviate.

Thus Guanxi is somewhat challenging for foreigners. Similarly, so are the favours linked to Guanxi, relying on give and take in the long term.

## **The early years**

During the 80's, the first service technicians lay the foundation for good Guanxi for Brabender Technologie in China. Over the years they were able to win over the Chinese clients as partners for a long term collaboration with expertise and experience – a partnership that still exists today. Antonio Seising, sales manager for Asia-Pacific can confirm this: "Chinese clients expect a lot, not just from the product, but also from the service. They want to be wooed in such a way that is barely understandable to Europeans. Our success here is due to the fact that we have long-term employees both in China and Germany."

## **Around-the-clock service**

The benchmark of expectations for technical support is conceivably

high: Production facilities must run seamlessly 24/7 for 365 days a year. As a first step, in 1997 Brabender Technologie – at that time still KG – established a representative office in Beijing. At that time there was one employee, who spoke both English and Chinese, and was in charge of continually ensuring spoken and cultural communication with Chinese clients. In 2005 followed the establishment of Brabender Technologie (Beijing) Co., Ltd., which was at the same time a requirement and the go-ahead for independent transactions in China.

## **Status quo**

How great this decision was is visible today, approximately ten years later: In the meantime, Brabender Technologie (Beijing) Co., Ltd. provided the entire Chinese market with sales, service, replacement parts and separate parts production. At the Beijing site there are 17 employees. Four of these were trained by the technical support in

Germany. In order to fulfil the requirements from several client's production facilities in China and to guarantee quick reaction when necessary, Brabender Technologie established two further service sites: Guangzhou in 2008 and Shanghai in 2011, each with two local service technicians who were trained in Germany as well. Since then the previous representative office in Beijing had developed into a spacious office and an attached production site in Tongzhou.

**A long journey**

Although the Chinese still know and value the quality of Brabender Technologie, the Chinese market is rapidly growing. New production sites are opening and entering the scene with a quick pace and new processing technologies. What's more: In recent years, competitive pressure has also risen due to professionally equipped Chinese competitors. Antonio Seising has long since recognised these challenges and provides resistance: "We are able to offer a very structured service in China. And with our new developments we can at least keep up with the latest trends and, as a rule, remain one step ahead of the market."

The Chinese plastics industry is giving birth to many new innovations in the materials sector and is providing the Duisburg company with the chance to accept new challenges for dispensing technology straight from the market. This leads to (new) Chinese clients, who no longer remain stationary in the low-wage sector, to bring a large amount of potential for integration with automation systems. Brabender Technologie is continuing to work on a standard China feeding line. The company is already delivering feeders for simple processing applications

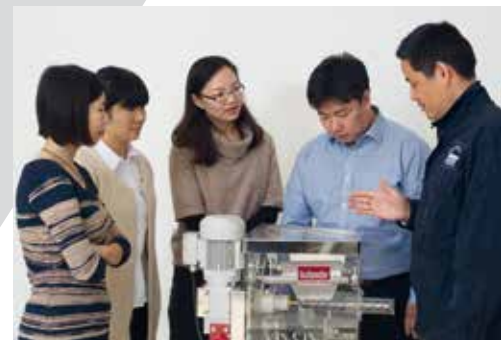
which were manufactured in Beijing with Chinese parts and others "Made in Germany".

Due to the successes that the feeder specialist has achieved within the food and pharmaceutical market in Europe and America, the clientele is currently expanding, and should reach China. Soon a new Brabender Technologie base will be opening in the west-Chinese metropolis Chongqing, in order to offer their well-known service in the region. Some clients have already begun to construct production lines in west China.

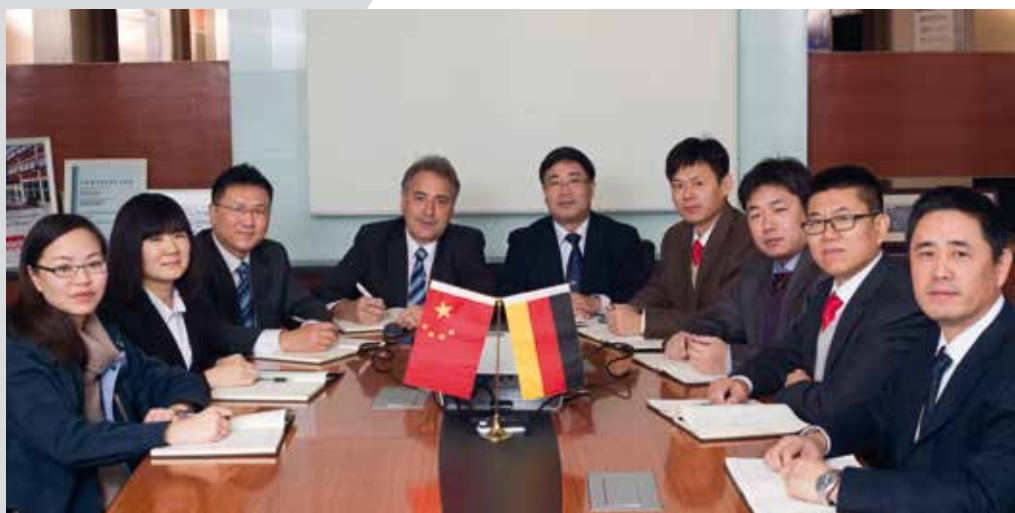
"In China, for China" – true to the motto in the future the middle kingdom will continue to play an important role in the company group. Thus providing top expert knowledge and an excellent service structure. And Guanxi, of course. ■



Office and production site in Beijing



Employees in direct exchange



Team China – in the middle, Yang Hongjun, leader of Brabender Technology China (right) and Antonio Seising, sales manager Asia-Pacific (left)



# K49 NEW CONSTRUCTION

## According to plan

Roughly seven months ago – in May – work commenced on the new construction for the company headquarters in Duisburg. Thanks to efficient system construction and experienced construction partners from Goldbeck, everything is on schedule.



.....  
Outside the foyer



The new technology centre: The crane is already suspended

When Brabender Technologie moves into the new building at 49 Kulturstraße in May 2017, it will mark the start of a new era for the company. Following the move, all of the business management units for the laboratories, the technology centre, production and shipment will find themselves under one roof, and also a new sort of production process will be introduced.

The 4300 square metre large hall provides significantly more space for production, whereby several production steps are optimally merged. General Manager Bruno Dautzenberg explains: "We have shifted to a more integrated work process, in particular for the assembly of standardised plant components. Now we can use up our capacity more efficiently."

Scaffolding and construction vehicles still dominate the landscape. The crane for the technology centre, the cen-

trepiece of the new company headquarters, is already suspended eight metres high. In the future, clients will be able to duplicate real conditions for their trials with Brabender Technologie plants. The visitor rooms opposite provide guest with an inspiring atmosphere during their meetings, with a view over the technology centre.

On the floors for the management, administration and laboratories, underfloor heating has already been installed, with embedded boxes for power and internet cables. Warm air, and air conditioning for the summer, will be made possible by district-heating and its use throughout the whole building. The Duisburg district heating is derived from power-heat exchange, industrial waste heat, renewable energy sources, and is also used outside of the heating period. ■



The interior view of the new production hall



Underfloor heating on all floors



Sideward view of the new construction



# From the regions

# **MERRY**

# **CHRISTMAS**

Year after year ... the festive period and new year are just around the corner. Employees from all around the world like to send the clients and friends of Brabender Technologie best wishes on these occasions. We wish you a merry Christmas and a great start to a successful year in 2017.



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### **Brabender Technologie, Duisburg**

Wir wünschen Ihnen und Ihren Familien ein frohes Weihnachtsfest!

*We wish you and your family a Merry Christmas!*





**Brabender Technologie Inc., Mississauga, Canada**  
May Peace, Good Health and Prosperity be yours now and throughout the coming New Year!



**Service Vostok, Moscow, Russia**  
Желаем крепкого здоровья, большого успеха во всех делах и начинаниях и большого счастья в личной жизни!  
*We wish you great health, much success in all beginnings and matters and good luck in your private lives!*



**Brabender Technology Co. (Beijing), Ltd., China**  
新年快乐 / Happy Spring Festival = Happy Chinese New Year  
恭喜发财 / Wishing You Prosperity



**Brabender Technologie, India**  
Merry Christmas and a Happy New Year from India!



**Brabender Technologie Middle East, Dubai, United Arab Emirates (UAE)**  
Nawa'y ang panahong na ito ay maglapit sa atin upang ipagdiwang ang pagmalhal ni Kristo!  
*May this season bring us together to share the love of Christ!*



# FLUX



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