

# FLUX

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Plastics**

This dynamic trend is a major process- and mechanical-engineering challenge.

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Sub-brands provide product-range clarity.

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The ABS-Group takes action.



**POINTING THE  
WAY AHEAD**

## > editorial



**HORST VOHWINKEL**

General Manager  
Brabender Technologie  
GmbH & Co. KG

**BRUNO DAUTZENBERG**

General Manager  
Brabender Technologie  
GmbH & Co. KG

Dear business partners, dear colleagues,

why produce a customer magazine? Actually the answer is quite simple – because communicating with you is important to us. In the past two years we have undertaken a thorough review of where our company is at. We are satisfied with many aspects of our business. Some things are good, but not expressed or portrayed sufficiently well enough to be perceived as meeting high quality standards.

As a consequence we have given Brabender Technologie a new livery. But our new corporate design is neither an empty shell nor a departure from familiar quality standards. Our portfolio of proven machinery has been restructured to provide clarity and given a new brand name. Our new image continues to express our engineering skills, but is more appealing and inviting and showcases our machines in a much more appropriate light.

We have a great deal to offer and would like to improve the way we communicate our range of capabilities to you. Be amazed at just how many different facets Brabender Technologie has. Be inspired, just as you keep on encouraging us to deliver new solutions and technologies. We hope you enjoy reading this magazine and look forward to get talking with you – for mutual benefit.

Kind regards  
Horst Vohwinkel and Bruno Dautzenberg

# FLUX

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email@brabender-technologie.com

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In compounding lines for plastic refinement at home all over the world: the **FlexWall®Plus feeder** from Brabender.

# Unlimited Opportunities: **PLASTICS**

**>** **Plastics have made their way into nearly every aspect of our lives, from automobile manufacturing, medical devices, toys to packaging. We expect this dynamic trend to grow along with it a greater variety of plastics. This will present additional plastic processing and engineering challenges. >**



.....  
The robust blades on wind turbines at offshore windfarms are made of carbon fiber reinforced plastics.

Plastics are taking over the world, replacing metal, wood or glass in many industries. For example they allow lighter vehicle designs, are more weather-resistant than exterior wood and more durable than glass. The potential of plastic applications has not yet been fully developed and this relatively young industry is constantly developing new formulations and applications.

Brabender Technologie is actively involved in all segments of the plastics industry. Our product portfolio features the appropriate equipment for base polymer production processes, compounding finishing processes as well as injection molding or direct extrusion processes. However, our core business is compounding, where many small and mid-sized custom companies compete alongside major corporations. All these companies must manufacture to the specifications set by the innovative product designers who dictate the properties of the plastic required to meet the final product design.

Brabender is often consulted to give advice on the process-related properties of plastic manufacture. "For example, say one of our customers has developed a formulation that exhibits certain characteristics in the end product. Our job is to analyze the flow characteristics of the powdered ingredients and to select the appropriate feeding/weighing unit or to develop a new one", Bernhard Huppmeier, Brabender Technologie's Head of Sales in Germany/Austria/Switzerland, explains. "Almost all new bulk materials must be initially tested to see how easy they are to feed into the production processes", Klaus Plien, Head of Sales in Europe (except Germany, Austria and Switzerland) and South America, adds.

This trend of developing new plastic products and with it new ingredients continues and will not end any time soon. A good example are nanoparticles that expose processing limitations. "That is an interesting topic, as nanoparticles exhibit very different characteristics



during processing as compared to the final product. Feeding them is very difficult as the nanoparticles are very small and fluid. They even penetrate human skin by contact. All this makes their use in production processes very tricky." Klaus Plien's conclusion is: "This issue is currently a black box requiring a great deal of research."

### Partnering with research

Partnering with research institutes is also one of Brabender Technologie's core responsibilities as this is where most new formulations are developed. "Processes are tested to laboratory scale in these institutes", Klaus Plien explains. "That's why partnerships are so important for us – if our equipment functions well in these lab conditions and the new formulations are certified, we are then in a good position to confidently scale up to production rates." Feeding equipment can then be easily selected and modified as required to meet production requirements.

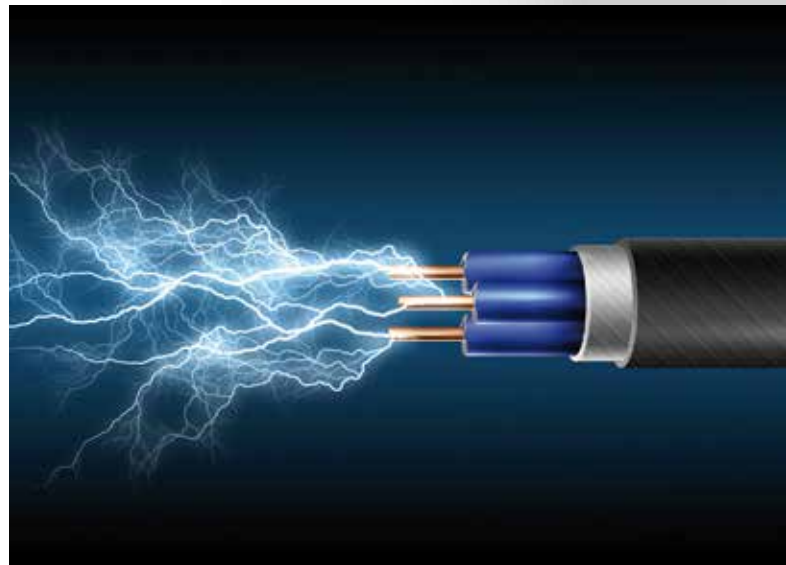
### Controls

Along with the mechanical components, the control systems are state of the art. They take in large amounts of data from the weighing systems and feeders, process this instantly with our algorithms, and use this information to accurately and dependably control the ingredient flowing out of the feeder. Along with this control technology our interfaces allow immediate real time data transfer from the feeder to the host system. This data can be inputs such as recipes or setpoints as well as outputs such as actual value and alarm conditions.

"Controlling feeders from existing PLC's with customer programming is a common question", Klaus Plien explains. "This can in principle be done but you will not be able to have the decades of algorithm development, our full service or guarantee of performance and accuracy. Our controls integrate with >



Engine block made of highly heat-resistant plastic



Extremely stressed high-voltage cable

ease into all host systems and we strongly recommend our controls be used with all Brabender feeding systems.”

### Global Commitment

The plastics industry is changing geographically as it changes technically. Market share by the global regions is shifting rapidly, for example while China consumed ten percent of all plastic products in 2005 experts now estimate consumption in 2015 at around 25 percent. This means that China is set to move ahead of Europe and North America in the near future. “Luckily, we had the foresight for these changes and in 1997 established an office in China offering sales, after-sales service and spare-parts inventory.” The same applies to North America, where a branch was established in 1982.

Decision-makers as well as R&D labs are often based in Europe or America, while production is located in Asia. These regional offices insure the same high quality after-sales service and support as the global headquarters.

### Flexibility

Production flexibility is a major issue facing all plastic manufacturers because the wide range of plastic compounds available is leading to ever smaller batch sizes in lean manufacturing

processes. Manufacturers demand faster set-up times often requiring several change-overs a day. “Added to that is the fact that many compounders manufacture to just-in-time principles and don’t hold inventory. Therefore, frequent product change occurs”, Bernhard Hüpmeier tells us. Brabender is reacting by providing smaller feeders with faster changeover times, which is of great interest to small-lot contract compounders.

Given the expanding range of applications, plastics are often featuring extreme properties. Raw materials are more frequently toxic, explosive, extremely heavy or very abrasive. These properties usually require changes to feeders, special versions or finishes, for example by using specially hardened screws or dust free enclosures. “We deal with specific material feeding by making the appropriate feeder revisions”, both Heads of Sales emphasize. “That is our strength and at the same time what drives us to innovate.” Given the inventiveness of the plastics developers, that drive is set to continue for some time. ■



## INFO

### ENHANCED FOR HIGH PERFORMANCE

What we call compounding, i.e. the enrichment of base polymers with additives, gives plastics new properties. For example they become heat-resistant, impact-proof, tear-proof or more elastic. Such high-performance plastics are what makes a wide range of applications possible. Giant wind turbines at offshore windfarms require extremely light yet robust blades, which are typically reinforced using carbon fiber. In automotive manufacturing induction manifolds and recently engine blocks are made of extremely heat-resistant plastic. Deep-sea or high-voltage cables are also plastic products.

Plastic granulate  
for further  
processing



# PROVEN EQUIPMENT

## innovatively showcased

Plenty of new contacts and interesting conversations at ACHEMA 2015



**>** In June Brabender Technologie unveiled its new trade fair concept at ACHEMA in Frankfurt/Main. Customers and visitors showed a great deal of interest in the equipment on show as well as in the new corporate design. **>**

Brabender Technologie showcased a selection of feeders and weigh-batchers as well as several feeders specially developed for the pharmaceuticals industry at the trade fair. "Visitors showed most interest in our Flex-Wall® feeder", says sales executive Lars Wehren. "It offers obvious benefits to customers – it has no internal stirring agitator and a large trough cross-section to counteract bridging. Its low design and ease of dismantling makes cleaning quick and easy". The pharmaceutical feeder attracted plenty of attention among visitors from the chemical and pharmaceutical industries. "These industries generated a large number of promising new contacts", says Wehren.

A total of 20 Brabender employees were on duty atACHEMA for the duration of the show, providing answers to all the questions posed by visitors and customers at the booth. The main issue was gravimetric

feeding for continuous processes. However other batch-process feeding topics were also addressed. "Many questions were related to problems encountered by visitors during ongoing projects", says Lars Wehren. "For example, the design of new systems or the modernization of old one." But visitors also made enquiries about loan equipment for testing purposes in their own factories. Not only German but also international visitors took a major interest in the loss-in-weight feeders on show.

#### Plenty of praise for trade-fair booth

One highlight at this year's show was the booth in Brabender Technologie's new corporate design. The crisp new design and the clear separation of exhibition and communication areas made the booth much more open and inviting. This structured layout was also praised by existing customers, who perceived the booth to be much bigger, despite featuring the

same amount of space as previously. "The new concept appealed to all our visitors. They regarded it above all as modern, eye-catching and welcoming", Lars Wehren relates. The separate seating arrangement, which provided an ideal amount of privacy for focused customer meetings, created a positive impression. "Of course we as employees also feel very much at ease in these surroundings", Wehren emphasizes.

At the end of the show Lars Wehren provides a positive summary: "We had more visitors to the booth compared with three years ago at the lastACHEMA. Roughly 15 percent more new contacts materialized as a result". Even small details, like the trade fair brochure containing information about the individual exhibits, were well-received. In Brabender Technologie's view this year's showcase at the process industry's leading trade fair was a success right down the line. ■



The sentiment among employees and customers was superb.

The separate seating area provided privacy for focused meetings.



Many visitors asked specific questions about ongoing projects.



Both German and international trade fair visitors showed great interest in the exhibits.



## INFO

### FACTS ABOUT ACHEMA 2015

ACHEMA attracted more than 166,000 visitors to the trade fair grounds in Frankfurt/Main from June 15 to 19, 2015. More than 3,800 exhibitors from 56 countries showcased their innovative solutions for the chemical and pharmaceutical industries. The trade fair was rounded off by a conference program featuring around 800 presentations, including on the focal topics of Bio-based World, industrial water management and innovative process analysis. The next ACHEMA takes place June 11 to 15, 2018.





# For No-Worries ENJOYMENT

New weigh-belt feeder for the food industry:  
easy-to-clean design and precision bulk  
materials handling

**>** When chocolate fans bite into a bar of chocolate containing whole hazelnuts, they barely think about how the hazelnuts got there. Consumers do not have to worry about their health either when consuming chocolate. That's all taken care of during the production process.





All parts can be easily demounted for cleaning without using any tool.

Special feeders, which on the one hand leave ingredients undamaged and on the other hand meet high hygiene standards, are used to add formulation-compliant admixtures. Brabender Technologie is now launching a new weigh-belt feeder, the DBW-G1-350 HYD “Hygienic Design” model on the market to handle such food industry feed processes.

### Preventive action to guard against contamination

The new weigh-belt feeder is an enhancement of our traditional product range for the food industry. It was conceptually designed in cooperation with leading food producers strictly in accordance with “hygienic design” principles, factoring in the relevant food industry standards, guidelines and recommendations. So all the components on this model that come into contact with food products or ingredients are made of smooth stainless steel or food-compatible plastics. These preventive measures permanently and reliably avert any

contamination caused by microbiological, chemical or physiological contaminants.

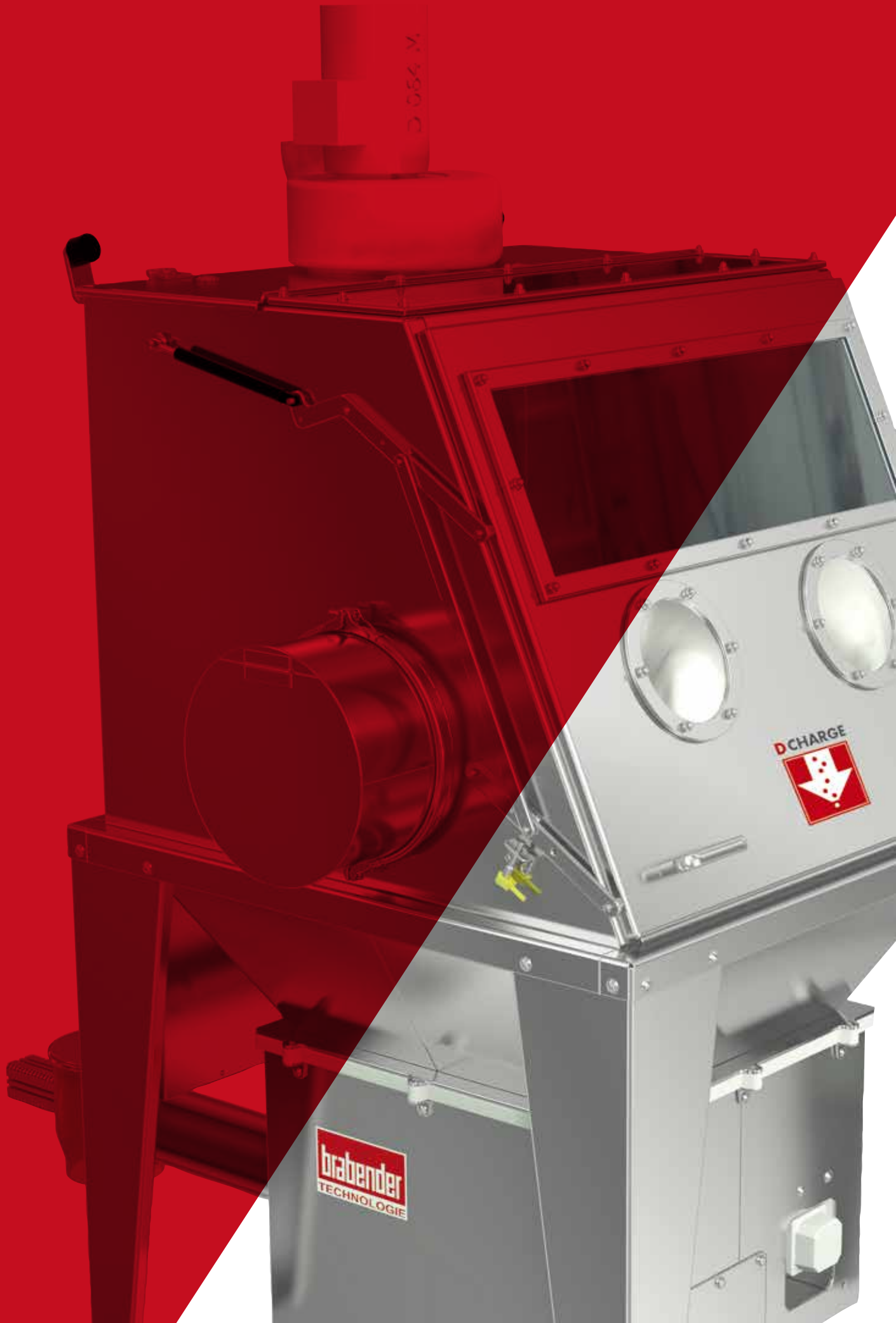
Furthermore the DBW-G1-350 HYD weigh-belt feeder features an easy-to-clean tubular frame, which gathers practically no dust. Careful attention has also been paid to ensuring that weld seams are burnished, non-porous and thoroughly penetrated as well as to avoiding cavities. Depending on the required configuration – either completely open or with easily removable side panels – the weigh-belt feeder’s innovative design makes cleaning an uncomplicated affair.

### High-performance, aseptic operation

The new weigh-belt feeder is powered as standard by a fanless, aseptic, smooth-finish geared motor, the design of which also complies with food industry hygiene standards. It can easily cope with quantities of up to several hundred kilograms of bulk solids per hour and furthermore features some very decent reserve capacity. As

a weigh-belt feeder the DBW-G1-350 HYD is also particularly suitable for use as a gravimetric feeder of brittle bulk solids, such as flakes, almonds, chips etc. These admixtures are treated with care and not corrupted by the feeding process. It is vital, especially in chocolate production, that nuts, for example, retain their original shape.

Be it for cleaning or maintenance purposes, this weigh-belt feeder’s accessible design enables belts to be replaced easily from side-on and without the need to use any tools. Other options, like a flexible infeed sleeve with self-sealing spring steel closure and a mounted dust collection and discharge hopper are also available. ■





# ROAD MAP

## through the World of Brabender

Sub-brands provide product-range clarity.



# > FEEDING

V FEED



G FEED



**Since June of this year Brabender Technologie has separated its extensive product portfolio into nine sub-brands. They distinguish the various core segments of the offering and provide a clear overview of the product range.**

Brabender Technologie's engineers listen very carefully. They have been monitoring the needs and wants of their customers and creating solutions to their problems for around

60 years now. They test new raw materials and formulations at their own technical center and adapt instruments to conform to changed requirements – or create new ones straightaway. This generates new standards and instrument categories, which can in turn be enhanced.

“We are continually reinventing ourselves”, says Klaus Donsbach, Public Relations Manager at Brabender Technologie. However that also entails a permanent expansion of Brabender

# > WEIGHING

**S** BATCH



**M** BATCH



## BRANDS PROVIDE CLARITY:

The new sub-brands structure the product portfolio in terms of design and content. As a result the orientation within the offering of Brabender Technologie is simplified.

Technologie's product range. This greater degree of differentiation was therefore accompanied by a loss of clarity, which the launch of new sub-brands is intended to eliminate.

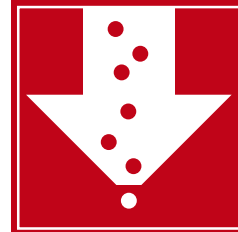
### Nine sub-brands for core business segments

"By putting these new categories in place we have given customers a better overview of our entire product range", Klaus Donsbach explains. The company's core skills – Feeding, Weighing, Discharging and Control – are showcased along

with the associated logos. The main function of every instrument can be immediately identified by means of these symbols. This new, clear structure thus provides a better and faster grasp of Brabender Technologie's entire product and service portfolio. "Our concern was to enable our customers to distinguish at a glance between a volumetric or gravimetric feeder, for example. This enables them to find the instrument they are looking for quicker", Klaus Donsbach explains. >

# > DISCHARGING

## D CHARGE



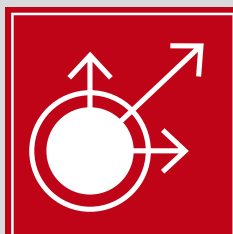
### G-VEED and V-FEED for feeders

Feeders are Brabender Technologie's core product segment. Here the spectrum of instruments to meet a range of different requirements is particularly broad. G-FEED and V-FEED separate the range into gravimetric and volumetric feeders. Optional flow-metering instruments branded as B-PLUS are also available. Furthermore FeederScout, a service brand and software solution that ensures the automatic identification of the optimum feeder for specific applications, rounds off the offering.

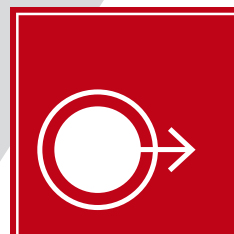
As far as weighing is concerned, the S-BATCH and M-BATCH brands distinguish between instruments for single- and multiple-ingredient weigh-batching. The discharging field of expertise is branded as D-CHARGE. This incorporates solutions for silos and bins, bulk bags and bagged ingredients. S-CON and M-CON distinguish between single and multiple feeder control systems.

# > CONTROL

M CON



S CON



### Quality guarantee provided

Every sub-brand not only represents a specific product range, but also the quality guarantee provided by the Brabender Technologie umbrella brand – the right feeders and peripherals for every application. “This gives new and existing customers an extensive yet differentiated impression of our product range and ultimately of Brabender Technologie’s high degree of specialization”, Klaus Donsbach sums up. ■



## INFO

### NEW BROCHURE

Our overview brochure presents the new product lines in detail. You can download it as pdf from our webpage or order a printed copy. Sectorrelated and more detailed brochures are being prepared.

[www.brabender-technologie.com/en/media-center](http://www.brabender-technologie.com/en/media-center)







# Pointing the Way ahead

The two General Managers explain their strategy for the future.

**>** **Brabender Technologie is changing. New people, new names and a new corporate design are just the outward indications of a deliberate review of where the company is at. FLUX spoke with both General Managers, Horst Vohwinkel and Bruno Dautzenberg, about assessing where the company is at and where it is heading.**

**FLUX:** **In the last two years Brabender Technologie has focused intensively on the issues of change and the future. What motivated you to do that?**

**Bruno Dautzenberg:** Primarily the generation change at senior management level. My predecessor headed up the company together with Mr. Vohwinkel for 22 years. Because people are a dominant feature of any business, it was of course an obvious time to review where the company is at and to map out a common future. **>**



**Horst Vohwinkel,**  
General Manager,  
Brabender Technologie  
GmbH & Co. KG

**Horst Vohwinkel:** Of course I would add that during this long period we got somewhat stuck in a rut and are now really delighted about all these new ideas.

**FLUX: How did you go about reviewing where the company is at?**

**Bruno Dautzenberg:** To start with I visited every department and spoke with the employees. I wanted to familiarize myself with processes at first hand and not from organizational charts. I then discussed my impressions with Mr. Vohwinkel and we jointly charted the potential that we see in Brabender Technologie. Thereupon we took action to get the employees on board.

„We always have our ears to the ground in the marketplace and listen carefully to what’s going on. That enables us to find out what is in demand and what we can improve on.“

**FLUX: Was there opposition to so much willingness to change?**

**Horst Vohwinkel:** On the contrary, the people here want the company to be successful. They are delighted to be able to make their contribution and to be asked their opinions. Forward-looking strategies always go down well with our people.

**FLUX: What medium-term objectives have you set?**

**Bruno Dautzenberg:** To start with these include those standard business numbers, i.e. healthy sales growth and steady profits. Strategically speaking, we want to focus more on the food and pharmaceuticals industries. In global terms these markets are of major interest to us, because they are growing and relatively immune to economic fluctuations.

**Horst Vohwinkel:** Global is the keyword for another objective of ours. We now sell up to 80 percent of our products abroad. That is where we see our major challenge – our global customer care approach has to be even more effective and customer-focused. Local service provision has to be of the same quality everywhere, i.e. to the same superior standards of our Duisburg-based parent company.

**FLUX: What pitfalls do you have to negotiate along the way?**

**Bruno Dautzenberg:** I see two issues here. The first is human resources, because the same generation change that we have just experienced at senior executive level is about to happen here too. Roughly every fourth employee is set to retire in the next few years. At this juncture we are faced with a twin challenge, not only of recruiting qualified new people but also of effectively mentoring the knowledge transfer process from older to younger employees. Our second issue is a familiar one and is called innovation – that was and is what drives us forward.

**FLUX: How do you rate Brabender Technologie’s power to innovate?**

**Horst Vohwinkel:** We always have our ears to the ground in the marketplace



and listen carefully to what's going on. That enables us to find out what is in demand and what we can improve on. We then translate these needs into instrument engineering reality.

**Bruno Dautzenberg:** In a way we innovate from the outside in. We develop or optimize whatever helps the customers. The market determines our thinking and actions. Currently it is materials, for example the raw materials in various plastics, that lead to innovations. But we are also continually challenged to innovate as far as peripheral issues are concerned, for instance equipment user-friendliness.

**FLUX: Mr. Vohwinkel, you have now been General Manager for 22 years and with the company even longer. What do you particularly like about Brabender Technologie?**

**Horst Vohwinkel:** I am particularly grateful for the fact that we have been able to help shape our industry. I am privileged to have experienced a continuous boom during my time at Brabender Technologie. During my initial years with the company our competitor was the market leader and we were the pursuer. But we caught up, became an innovation leader and ultimately the market leader too – which we remain to this day. This is what makes our track record over the last 30 years so amazing.

**Bruno Dautzenberg:** We of course want to extend that leadership in the future. This is not the time to rest on our laurels, instead we need to progress, keep finding new solutions and keep meeting or even exceeding customer expectations.

„We are a reflection of the Ruhr Region: open-minded, honest and down-to-earth.“



**Bruno Dautzenberg**  
General Manager,  
Brabender Technologie  
GmbH & Co. KG

**FLUX: Herr Dautzenberg, you have now been on board for less than two years. What aspects of Brabender Technologie have made a particularly lasting impression on you?**

**Bruno Dautzenberg:** The well-rounded impression of the company that I had from the beginning has been confirmed and even reinforced. We are a reflection of the Ruhr Region: open-minded, honest and down-to-earth. Interpersonal communication is excellent it really is fun working with the people here.

**FLUX: What are your hopes for the future?**

**Horst Vohwinkel:** Of course I hope that company continues to compete successfully in the market, that our employees continue to enjoy job security and that I personally remain in good health.




**Bruno Dautzenberg:** I have a kind of vision – if a visitor to K 2019 is asked whether they have already visited the

Brabender Technologie booth, and they reply quite naturally, “Of course I want to find out more about feeder technology innovations!” We want to be the established and undisputed technology leader in our industry. It is my heartfelt wish to guide the company towards this goal. ■

# More Attractive, Better, Swifter

There is no better source of information within a company about where untapped potential lies than its own employees. Brabender Technologie set out to mine this valuable asset and launched the "ABS-Group".

„COMMUNICATION!“



At the staff meeting 2014 all employees were asked to make a wish list: What needed to be improved within Brabender Technologie? Everybody should note down one word anonymously. The collected cards were displayed as a word cloud. Frequently mentioned were the terms "communication" and "cooperation".

Both general managers Horst Vohwinkel and Bruno Dautzenberg were delighted to accept this challenge. Previous experience led Bruno Dautzenberg to initiate the formation of an internal group, whose brief was to gather suggestions and proposals from all departments. Brabender Technologie



The members of the ABS-Group f.l.t.r.: Klaus-Dieter Kemkes, Ulrich Sondermeier, Ingo Schüßler, Michael Richtmann, Norbert Matt, Klaus Gubensek, Horst Vohwinkel, Kerstin Rathke (not in the photo: Anne Schmidt, Bernhard Hüppmeier, Antonio Seising)

needed to become (More) Attractive, Better and Swifter – and so the project was given a name very quickly.

“We actually kicked the project off at our closed-door convention in Iserlohn”, Horst Vohwinkel relates. “One item on the agenda was the appointment of a team to identify weaknesses and to acquaint colleagues with best practices.” The appointment process morphed into an impromptu election, where only the eligibility criteria were predefined. “One prerequisite for the success of such a form of action is that the team gains acceptance”, is how Bruno Dautzenberg explained this unconventional approach.

**Participation is sought after**

Members of the ABS-Group interview a number of Brabender Technologie employees every week for six months. They ask questions about areas of responsibility, daily work routines and interfaces, about what functions well and where problems arise. “Employees were still reticent to start with. But after those initial interviews, our colleagues really opened up”, Ingo Schüßler, Head of Production

Planning, relates. “The grapevine of course works wonders. Once word was out that nobody is being criticized, that we listen attentively and then indeed take action afterwards, the appeal of this whole project soared. We were then promptly asked when this or that department was scheduled to be interviewed”, Service Manager Michael Richtmann adds.

Essentially the group consists of members from all sections of the company. Employees from all departments are also interviewed in order to obtain a really extensive idea of the status quo. The group’s effectiveness soon became apparent, Klaus Gubensek, Head of Mechanical Design Engineering, reports. “On the one hand a mutual understanding grew with each interview, and this applied in our case too. Working within the ABS-Group has broadened our horizons, and we in turn are able to pass this on to the departments.”

**Words are followed by action**

On the other hand the Group was also able to effect minor changes, which make daily routines easier. The Group

deals with employees’ remarks and comments issue by issue. Some criticisms could ultimately be addressed merely by extending an e-mailing list or by adding an extra field in a database. In other cases timings turned out to be possible pitfalls. “Many small changes will on aggregate result in a significant acceleration of our processes”, says Bruno Dautzenberg in summary. “Our customers will benefit from that, because faster and more reliable processes have an outward impact, for example, shorter delivery leadtimes.”

He is proud of the fact that improvements are being generated from within the company. Changes that are implemented using internal resources go down well with employees and make all those involved feel good. Once the ABS-Group has completed its task in the fall, follow-up action, such as a suggestions system, will be implemented to address concerns raised. Nobody at Brabender Technologie wants to return to the days before enhanced communication between the departments became an established norm. ■



# FLUX



**INTERNATIONAL**

Brabender Technologie GmbH & Co. KG  
Kulturstrasse 55-73  
47055 Duisburg, Germany

Tel. +49 203 9984-0  
Fax +49 203 9984-155  
email@brabender-technologie.com  
www.brabender-technologie.com