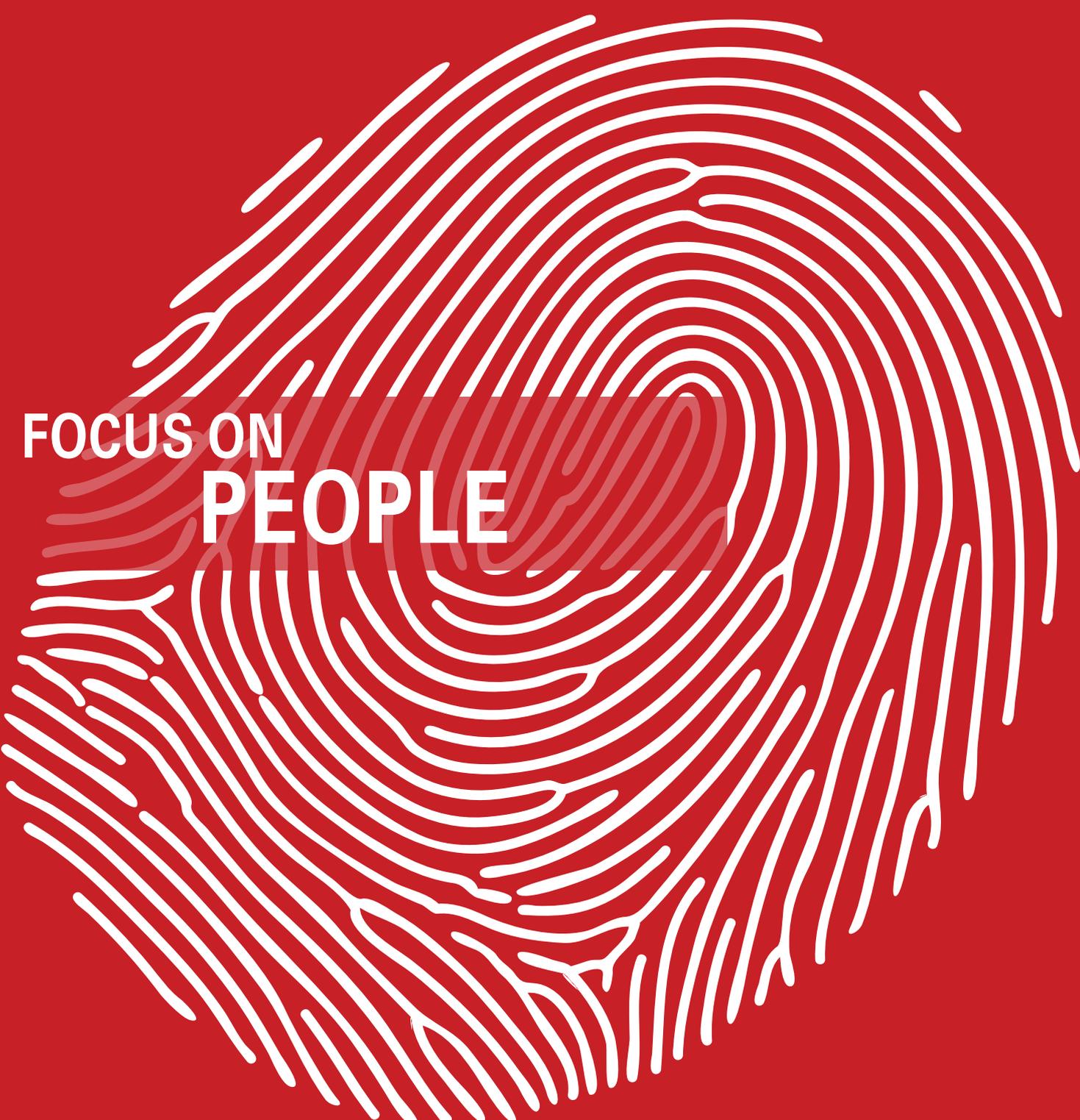


FLUX

The magazine for bulk ingredients technology



FOCUS ON
PEOPLE

Customer Profile PETEC:

Compounding on
planetary roller extruders

Dust Tight:

with DDSR20 2.0
and DDSR40 2.0

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CEO
Brabender Technologie

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IMPRINT

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> editorial



Dear business partners, dear colleagues,

In these transformative and exciting times, we have become increasingly aware of what is unquestionably essential to the future of our company's growth and success. Our focus is not on digitalization and automation, but on people: employees, customers, users and partners. Without them, we would not be where we are today.

That is why we have dedicated this issue to the "human success factor". In this issue you will learn on how we are investing in our most valuable resource and why we focus on each individual employee as a human being. You will learn about the initiatives we have undertaken in terms of "promoting young talent". In the "Innovation" section starting on page 8, you can read about how we have optimized protection for machine operators when they are handling hazardous materials.

The relationships with our representative partners around the globe are not merely commercial arrangements they are based on mutual respect and partnership. We are showcasing a great example of this in the article about our Polish agent, Bagsik (see pp. 24/25).

We wish you an enthralling read.

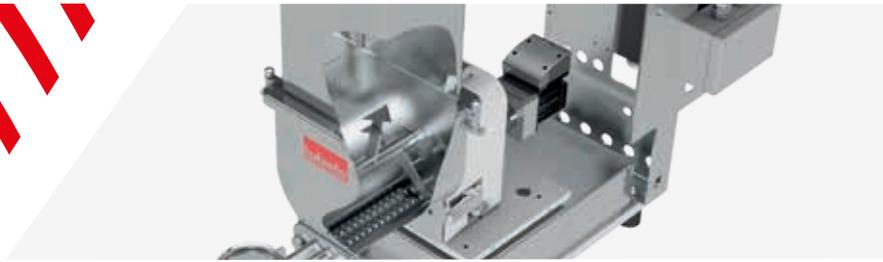
Bruno Dautzenberg and Günter Kuhlmann

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04 Innovative employers Focus on people

> innovation



08 DustTight DDSR20 2.0 and DDSR40 2.0
10 Lab Line MiniTwin 2.0
12 Discharging series BagMaster
15 New service Leasing instead of buying

> usus



16 Customer Profile PETEC Rust and Brune GmbH
20 Trade fairs 2021
Brabender Technologie flies the flag again

> persona



22 Practical experience for a promising future
Co-op Students

> global



24 Agency in Poland Bagsik

> news



26 News
27 Technical Column

Innovative employers

Focus on people

> A company cannot evolve, grow and be successful without taking account of the human factor.

Many companies are currently undergoing the process of digital transformation. They have to reposition themselves completely and react to changing markets. Individual businesses are finding it almost impossible to predict, control and plan for such markets, because they are volatile, uncertain, complex and ambivalent. Industry 4.0 is often understood as a technological revolution. However, this transition is essentially a change that people need to drive and be able to shape. New technologies are the outcome.

Employee development

Digital solutions should not be provided under any circumstances before the people in companies understand what they are all about. Therefore, it is the job of the senior management team to ensure that their employees understand and back this change. Companies will only achieve long-term success if the appropriate parameters are in place.

Bruno Dautzenberg, General Manager of Brabender Technologie, recognized this long ago. "All this digitalization and automation notwithstanding, we need people with experience, and, at the same time, people with new ways of thinking and the ability to create knowledge structures. Therefore, the challenge is to pass on learned knowledge, and, in parallel, entrench new ways of thinking and acting in training courses and apprenticeships."



Sustainability – applies to human resources as well

Young people can make a hands-on start at Brabender Technologie by being employed as working students during their degree courses. A classic win-win situation: the working students earn their living by undertaking career-relevant activities and gain valuable practical experience at the same time. And the employer can support promising students during their degree courses and, at best, take them on once they have graduated – more important than ever before in these times of skilled employee shortages. Starting in the summer of 2022, Brabender Technologie will also be mentoring two mechatronics trainees within the company for the first time on their journey to self-employment.

Ideas management: motivation for generating fresh ideas

In order to continuously improve existing processes, products and communication, Brabender Technologie has always provided its employees with the opportunity to contribute their own suggestions. A regular ideas management group was set up some time ago to ensure that what employees have to say is heard even more effectively. This is where employees from all departments and levels of the company meet and compare notes on a wide range of corporate enhancement projects.

Read more on page 7 >



The professional fields at BrabenderTechnologie are very extensive.

Bruno Dautzenberg puts it in concrete terms. "Our innovations are an integral part of our business and the most important drivers of our future. Generally, only a portion of our headcount is involved. But we are interested in involving as many employees as possible in finding, compiling

this quantity of packaging be reduced? After consulting with the supplier, spacers were inserted between the individual base plates, which has significantly reduced the amount of film used and at the same time made processing and handling easier. The meter-long films that are

"We are taking this ideas management approach, because, of course, we want to reduce costs and enhance our processes," Bruno Dautzenberg explains. "However, we wish to give every idea a chance. That is what our ideas managers are tasked with: finding ways and means of fostering great ideas and presenting them, so that they are in with a chance of being actioned. Ultimately, they act as facilitators to teams and people at Brabender Technologie that want to make a difference in this world – at least in our modest cosmos. That's because only motivated people are those creative, passionate employees that are essential to the success of our company." ■

"All this digitalization and automation notwithstanding, we need people with experience, and, at the same time, people with new ways of thinking and the ability to create knowledge structures. Therefore, the challenge is to pass on learned knowledge, and, in parallel, entrench new ways of thinking and acting in training courses and apprenticeships."

Bruno Dautzenberg,
General Manager of Brabender Technologie



and selecting suitable ideas for improvements and innovations within our organization. This is the only way we can mobilize performance reserves and foster a creative working environment."

delivered to the company inside boxes of other components are now reused too, thanks to an idea that was brought to the attention of the ideas management group.

One of the first ideas management projects is concerned with the topic of "environmental sustainability". The base plates for Brabender Technologie's feeders are delivered by its supplier on pallets of 50. The plates, which each weigh 25 kilograms, are wrapped in "generous" quantities of plastic film, which led to discussions within the ideas management group. How can



HUMAN FACTOR – WHAT IS THAT?

The term "human factor" describes psychological, cognitive and social influencing factors in socio-technical as well as man-and-machine systems and deals with the issues that deliver optimum functionality.

DDSR20 2.0 and DDSR40 2.0

Dust Tight

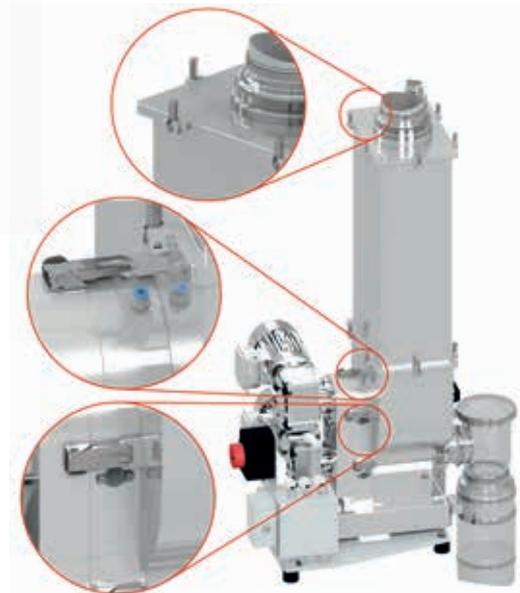
The number of new, highly hazardous active agents being used in the pharmaceuticals industry is rapidly increasing, as are occupational health and safety requirements. Brabender Technologie has now tested a new sealing system for OEB-compliant feeding applications.



O-ring seals on the machined surfaces

Option: Air purged seal

The quick-release captive fasteners remain in place



Sealed sight glass for inspection purposes

Features of OEB-compliant dust tight feeder

- Solid flanges with machined surfaces: all connections in the product space are tightly sealed
- O-rings are used between the flanges
- Multiple lip seals on agitator and on twin screw shaft
- Leak tight sight glass: allows visual indication of leaks
- Easily removeable lid, hopper and screw tube: quick-release captive fasteners
- Standardized components

When highly hazardous products are manufactured, occupational health and safety is a top priority. Hermetically sealed processes are not only important for the people involved in making a product, but also for the product itself. Leakage of even a few grams of active agent can result in significant consequences (see “Why dust tight is cost-effective” info box). Occupational Exposure Bands (OEB) define the average exposure concentration in workplace air over a period of time in grades. The higher the grade, the more toxic the hazardous substance.

The potential hazard that a substance poses is measured in

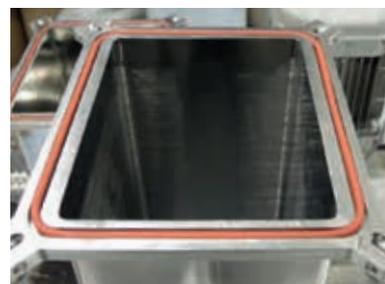


WHY DUST TIGHT IS COST-EFFECTIVE

The quantity of ingredients leaking during the feeding process should be kept to a minimum – specifically to not endanger the health of production staff when feeding dangerous bulk materials. In addition, the leakage of a few grams of active agent during the pharmaceutical production can result in major financial losses. Dust tight feeding in compliance with OEB definitely pays dividends.

Successful pressure test

Brabender Technologie has conducted a pressure test for OEB application purposes on its DDSR20 2.0 and DDSR40 2.0 twin screw feeders. The pressure was con-



O-ring (silicone, FDA) on machined surfaces

“Even though we were in principle looking at the issue of dust tightness, we were effectively testing for gas tightness. Now that the test has been successfully completed, we can safely say that the design of feeder is gas tight and dust tight.”

Jürgen Knez
Head of Mechanical Systems Development at
Brabender Technologie

micrograms per cubic meter. The following example demonstrates how accurate the measurements are: OEB 5 corresponds to an exposure of less than 1 µg/m³. If you were to extrapolate this figure to the size of the Empire State Building in New York, then no more than one twentieth of a teaspoon of a substance would be present in the entire building.

tained without any loss, when the feeders were both in standby and in operation. The PETG downspout and its sealing ring remains gas tight when subjected to 40 mbar pressure, without additional sealing. The Liquid Silicon Rubber (LSR) flexible connection can withstand pressure of 30 mbar over a prolonged period without being damaged. ■



CONTACT

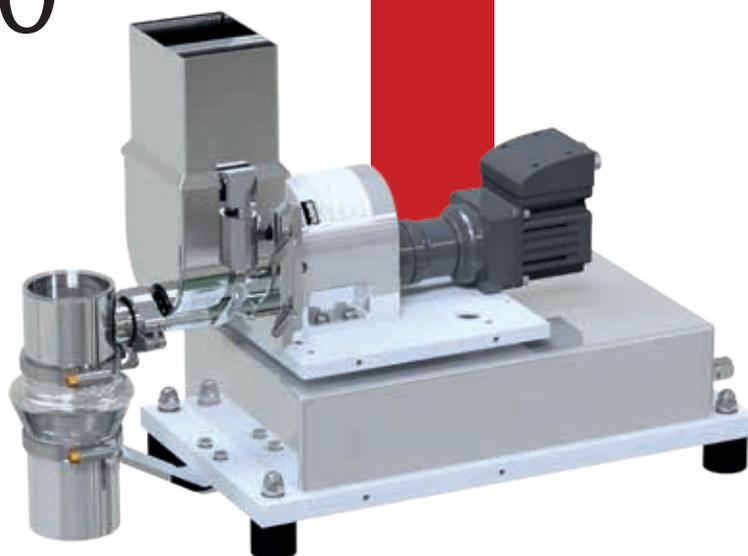
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Series: **MiniTwin** | RotoTube

MiniTwin 2.0

The Brabender Technologie MiniTwin feeder is ideal for very low feedrates. The MiniTwin has been recently redesigned, and many features have changed including shaft seals, now making this feeder more suitable for food and pharmaceutical applications.



With the ability to accurately feed very low feedrates often measured in grams combined with dust tight construction, the MiniTwin feeder is perfect for laboratory applications as well as the manufacture of food and pharmaceuticals. These industries often use toxic or active ingredients, and the Health and Safety of the operator is a critical feature in the design.

“The MiniTwin is the perfect device for feed rates of less than 50 grams per hour. It is light, compact and can be easily disassembled,” is how Jürgen Knez, Head of Mechanical Systems Development at Brabender Technologie, explains the benefits of this redesigned feeder.

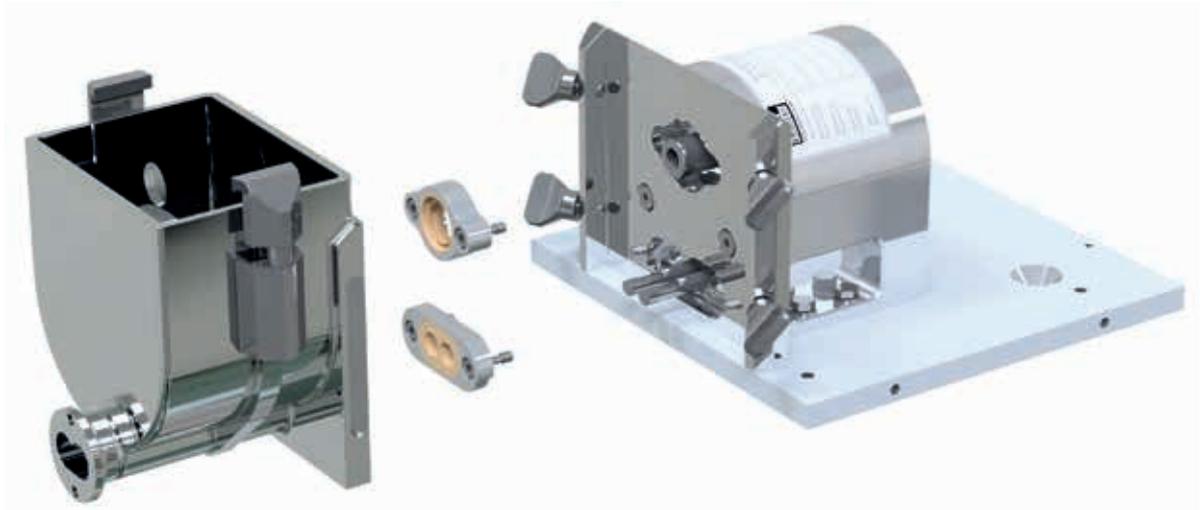
Redesigned Seals

One of the key elements that we redesigned is the screw shaft seals. The seal location has been changed from the screw to the gearbox output shafts. This change eliminates seal damage during the twin screw installation. Additionally, the seals have been radically changed now using a multiple lip PTFE design which greatly increase the seals effectiveness. This seal design is also used on the horizontal agitator shaft.

The key innovation in the design of the MiniTwin is that the seal is no longer located on the screw, but on the gear shafts. This therefore eliminates the risk of the seal lip being damaged when screws are being replaced. The new seals consist – in a break with tradition – of multiple lips and are made of food-grade PTFE. This also enhances the feeders sealing at the agitator and the screw. This gearbox seal was also custom made for Brabender Technologie. In the event of a seal leak, the operator can easily visually identify whether a seal needs to be replaced with the external leak detector.

Screws with stainless steel bushings

The new design of concave screws now includes a stainless-steel bushing. In Version 2.0, the concave screw keys are no longer glued in place, but pressed in and held in place using interference fits – perfect for food and pharma applications.



The shaft seal on the MiniTwin 2.0 is now located between the trough and gearbox.

Easier feeder disassembly and seal replacement

This redesign of the MiniTwin Version 2.0 included many proven features from other feeders. For example, to change the shaft seals, the gearbox and motor are fixed, and the seals can be removed from the front similar to the DDSR20V2.0.

Captive fasteners are used on the seal housings. The seals can be changed without complete bolt removal preventing loss and facilitating the seal change. In addition, the captive wing nuts that hold the feeder screw trough to the gearbox remain in place during disassembly allowing safe feeder mounting above your process.

Jürgen Knez also states that “We can also supply the MiniTwin feeder in an enclosed housing feature if required.” ■

Quarter turn fasteners between trough and hopper



Concave screws with press fit stainless-steel bushings



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Discharging series: BAV | BagDumper | SiloTray | **BagMaster**

Bulk Bag Discharger

BagMaster

Brabender Technologie has developed a seal for its **BagMaster** discharge station, which in combination with the dedicated paddle mechanism is the ideal aid to dust-tight, safe discharging of bulk materials.

New seal

The U-shaped seal is made of vulcanized silicone and makes the BagMaster absolutely leakproof and robust.



Suitable bulk materials

As far as discharging and feeding are concerned, the BagMaster can handle all free-flowing bulk materials that enable bulk bags to self-empty using the auxiliary paddle mechanism, but not liquids.

Paddle mechanism

The paddle mechanism, featuring two counter-rotating activation surfaces, aids the emptying of bulk bags by means of a product activation in the outlet and base sections.

Integrated feeder

The BagMaster is also available as a combination unit featuring a feeder integrated in its superstructure.

This is how the BagMaster works

The BagMaster consists of a base frame featuring a counter-rotating twin paddle mechanism, onto which the bulk bags are placed. Each of the twin paddles is raised or lowered by means of a pneumatic lifting cylinder and generates a rocking motion that moves the bulk bag's contents inside the outlet and base section.

"The paddle mechanism aids the safe discharging and complete emptying of bulk bags, including the bag corners, superbly," Andrzej Watzlawik, from the Mechanical Systems Design Engineering team at Brabender Technologie, explains and continues: "We can mechanically adjust the paddle mechanism to match operating conditions in each case by adjusting paddle amplitude and configuring the pulse-pause control system."

As far as discharging and feeding are concerned, the BagMaster can handle all free-flowing bulk materials that enable bulk bags to self-empty using the auxiliary paddle mechanism. The prerequisite for this is that these materials are available in bulk bags, free of impurities or foreign objects, have neither ignitable (caused by friction or impact) nor explosive properties and do not cause unacceptably high wear on the unit's components that come into contact with the product. However, liquids cannot be fed using the BagMaster.



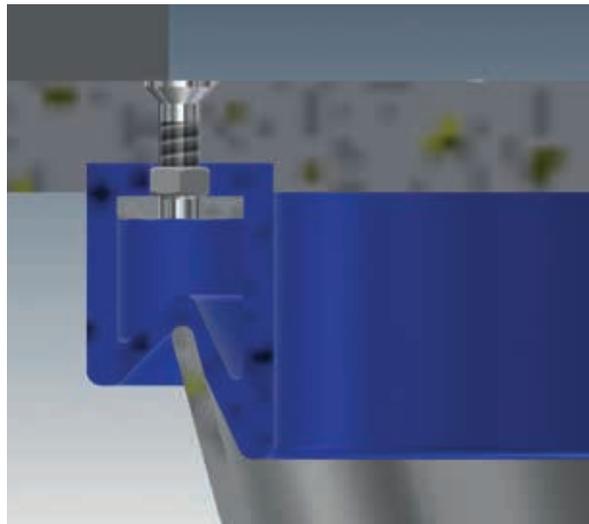
TECHNICAL DATA

You can access our works standards, including full technical data and all options, here:





Paddle mechanism



New vulcanized seal

Combination unit with integrated feeder

The BagMaster is also available as a combination unit featuring a feeder integrated in its superstructure. "In this case, the bulk bag's contents first of all enter the feeder and are then conveyed by the feeding unit to the outlet, where they exit the feeder by means of gravity," Andrzej Watzlawik explains. The combination unit's discharge rate can be set via the operating point, e.g. operating speed and vibration amplitude.

Vulcanized seal

To date, seals have been bonded on to the Bag Master. The new, one-piece, U-shaped seal is vulcanized. Mechanical systems design engineer Watzlawik explains: "The new seal is made of vulcanized silicone and makes the BagMaster absolutely leakproof and robust." It is available for three standard sizes (280, 350 and 420 cm diameter). ■

"The new seal is made of vulcanized silicone and makes the BagMaster absolutely leakproof and robust."

Andrzej Watzlawik,
Mechanical Systems Design Engineering team at
Brabender Technologie

A compressed air-operated Quick Docking System (QDS), which is mounted beneath the activation surfaces, is used to ensure dust-free connection of the bag spout. The spout is clamped manually into the QDS and pneumatically tightened.

New service

Leasing instead of buying

What is already standard practice in many industries is now gaining traction in manufacturing as well. Equipment as a Service (EaaS) – machinery is leased rather than purchased.

Brabender Technologie will also be offering feeders for lease from mid-2022 onwards. That's because customers have many good reasons for leasing equipment rather than purchasing it outright. Be it as a temporary replacement device that is used to bridge or supplement a time-limited application. Or even for experimental purposes, to test new processes, materials or products – without having to invest a major amount of money straightaway. The benefit of this is that the company continues to have cashflow at its dispos-



al rather than tied up in hardware. Furthermore, the lessee saves on long-term maintenance and always benefits from state-of-the-art technology. "Basically, leased equipment is the ideal solution for short-term, temporary assignments of up to 6 months," says Antonio Seising, Head of Sales at Brabender Technologie.

A whole range of equipment is provided, such as DDSR20 2.0 modular feeders as well as Flexwall® universal feeders and the DS line. To make things especially convenient for lessees, Brabender Technologie offers a choice of various standard options and therefore always finds the right solution for requirements

in each case. Full, user-friendly packages that include Congrav OP1 or Congrav OP6 operating panels are also provided.

Companies interested in this service can get in direct touch with their dedicated contact person at Brabender Technologie. ■



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Customer Profile

PETEC Rust and Brune GmbH

PETEC offers compounding and product development on three different planetary roller extruders.



The story of PETEC is closely linked to that of ENTEX, which was founded more than 30 years ago by Harald Rust, who passed away in January 2021. He has been succeeded by his son Sebastian Rust who is co-CEO together with Philipp Brune of the recently established and fast growing company PETEC. Brabender Technologie and ENTEX have been partnering for over 20 years. "It is a very close relationship," is how Sebastian Rust describes the

bond. "With few exceptions, there is always at least one Brabender Technologie feeder upstream of every ENTEX planetary roller extruder."

How it all started

Sebastian Rust met industrial engineer Philipp Brune for the first time in 2014, when Philipp and his father were testing their product, a road markings additive, at the ENTEX Technical Center. The planetary roller



Plastics can be processed with planetary roller extruders as gently as possible.



PETEC and BrabenderTechnology: a successful partnership

extrusion technology provided by ENTEX matched this sensitive ingredient perfectly. (See “Planetary roller extruder: explained in simple terms” Info Box). “Planetary roller extruders melt materials not by means of mechanical friction – so-called shear forces, but by means of a thermal energy influx into the material via wall contact,” engineering graduate Sebastian Rust explains. “This makes temperature control extremely accurate and the processing is gentler on the ingredient than a conventional extrusion system.”

The Brunes searched in vain for a contract compounder that was in a position to manufacture their product. Contract manufacturing services using

planetary roller extruders simply did not exist in the market. “Sebastian and I hit it off right from the start,” Philipp Brune recounts. “And while talking, we came up with the idea of filling this gap in the market by setting up our own company.” As it turned out, this was the right decision. Since it was set up in 2019, PETEC has been on a growth trajectory, and in 2021 was able to increase its capacity by adding a third extrusion facility, Europe’s longest planetary roller extruder.

You can read the interview with the two CEOs on the following page. ■



PLANETARY ROLLER EXTRUDERS: SIMPLY EXPLAINED

The foundation of the planetary roller extruder is the planetary gear mechanism featuring an large face width and a helix angle of 45 degrees. The intermeshing of all the components and the rotation of the central shaft enable the surrounding planetary gears to roll along the cylinder wall in an orbiting motion. The extrudate is drawn into the appropriate space by the plunging motion of the teeth, rolled out into thin layers and conveyed forwards by means of the spiral. This procedure is repeated several times, thus enabling precise process control throughout the entire compounding process.

An interview:

Sebastian Rust and Philipp Brune

FLUX: What services can customers expect PETEC to provide?

Sebastian Rust: We provide contract compounding and process development services on three different planetary roller extruders. The best-case scenario is when a customer chooses to permanently partner with us to manufacture their product. If they choose to buy their own machinery after a successful market launch, we provide them with commissioning support, explain to them how the equipment works and how to use it. This service enables commissioning times to be very short with large cost savings. After the extrusion stage and subsequent pelletizing, the product is packed in accordance with the customer's specifications. We use the most current underwater pelletizers on the market in our systems. Furthermore, we have a state-of-the-art vacuum system, which enables us to degas complex products while an inline spectrophotometer continuously monitors all processes. This ensures that industry standards are maintained and at the same time provides online quality control, in tandem with our internal laboratory.



FLUX: What are the advantages of manufacturing on planetary roller extruders?

Sebastian Rust: Plastics need to be processed as gently as possible. Exact temperature control enables planetary roller extruders to preserve material properties that would otherwise be lost as a result of the shearing normally associated with conventional types of extruders. This feature allows certain process steps and additives to be removed. What enables temperature control to play such a key role are the heating and cooling channels,

which feature a wall thickness of just two to four millimeters, depending on the size of the extruder. This closeness is why the temperature control system using pressurized water or oil is easier to control. The central shaft is also temperature-controlled, meaning that the ingredients can always be closely channeled between the center shaft and planetary rollers.

FLUX: What sectors of industry are your customers involved in?

Philipp Brune: We have customers in all sectors of industry.

“The planetary roller extruder guarantees high precision process control and processing that is gentle on ingredients.”

Sebastian Rust
CEO of PETEC Rust and Brune GmbH



Sebastian Rust

Planetary roller extruders are not only used to process plastics, they are also suitable for foods, for example for the production of chocolate or gum-like chewable bases. But the process also works very well to devulcanize natural rubber derived from used tires.



Philipp Brune

FLUX: What industry trends are currently attracting your attention?

Philipp Brune: The market is currently heading quickly towards reactive extrusion. In this special

extrusion process, various components are bonded together by means of a chemical reaction. The thermodynamic efficiency of the planetary roller extruder enables even very low-viscosity materials, which previously were regarded as being almost impossible or difficult to pelletize, to be pelletized. Rolling out thin layers also enables reaction times to be substantially reduced. Silicon, hot melts, recycled material and biopolymers as well as synthetic polymers like PLA are also major issues. We are in close contact with various research organizations on these issues.

FLUX: Which Brabender Technologie feeders do you use?

Sebastian Rust: We populate our extrusion lines with a wide range of Brabender Technologie’s high-tech loss-in-weight feeders – for both solids and liquids. In addition to their weight-belt feeders, we also use Brabender Technologie’s BagMaster bulk bag unloader for our three lines.

Philipp Brune: Our challenge was to keep the entire system as flexible as possible, given the

wide range of different customer requirements. The outcome is a range of modular extrusion systems that we can combine with any Brabender Technologie feeder, and we are able to connect up to 12 feeders to a single extrusion facility.

Mr. Rust, Mr. Brune, thank you very much for your time!



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Trade fairs 2021: Compounding World Expo and Fakuma

Brabender Technologie flies the flag again

Following a year-long enforced break caused by the Corona pandemic, Brabender Technologie was represented at two in-person trade fairs during the fall: at Compounding World Expo in Essen and at Fakuma in Friedrichshafen.

After many months of predominantly digital communication, exhibitors and visitors alike were delighted at last to reacquaint themselves with real contacts and genuine communication. Compounding World Expo in Essen opened its doors at the end of September and more than 3,500 visitors came

along. The mood was even better than expected, and the industry is looking with optimism to the future. The CWE show is also a regional home game for Brabender Technologie, as its corporate headquarters are located barely 25 km away. Reason enough to fly the flag in two ways: on the one hand at the booth in the exhibition hall, and on the other, outdoors with our new ShowTruck in front of the hall. This mobile exhibition space has proven its worth, especially in the absence of trade fairs during these Corona-afflicted times.



Book an appointment with the ShowTruck now





Compounding World Expo: modular highlight

Visitors were therefore able to marvel at all our innovations not just at the booth, but outside in the ShowTruck as well. The focus this year was on the completely reengineered feeder generation 2.0, including the DDSR20 2.0 twin-screw feeder and the DSR28 2.0 single-screw feeder, the modular design of which thoroughly appealed. "This modular system provides users with numerous benefits: it is more custom, flexible and efficient," is how Jürgen Knez, Head of Mechanical Systems Development at Brabender Technologie, summarizes the benefits of these innovations. Furthermore, the FlexWall® FW40 and two feeders

from our DS line attracted a great deal of interest. "It was a valuable event for us and we got plenty of high-quality inquiries. We will certainly be back again in 2023," is Brabender Technologie General Manager Bruno Dautzenberg's positive résumé of this trade fair showcase.

Successful restart at Lake Constance

The 27th edition of Fakuma – the international trade fair for plastics processing at Lake Constance – kicked off just two weeks later. In view of the geographical location, it was only natural that representatives from Austria and Switzerland attended. Potential buyers from these neighboring countries were therefore provided

directly with qualified advice and support by their respective contact persons. The exhibition halls in Friedrichshafen attracted plenty of visitors and – even though no visitor records were set – the delight at being able to speak face-to-face with users, colleagues and co-exhibitors was palpable. The new feeder generation 2.0, which Brabender Technologie showcased at its booth in Hall A6, was also very well received at Fakuma. In particular, simplified access to the feeders, the option of quickly replacing the gear unit and the feeding screws as well as the optional servo motor, all appealed to the experts and opened up a wide range of new applications. ■



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Practical experience for a promising future

Co-op Students

Five co-op student interns are currently gaining valuable practical experience in various departments at Brabender Technologie while studying for their degrees.

Even if the term “co-op student” has been in use for 100 years now, this approach to student employment in companies has only really been gaining traction since the end of the 1990s. It now represents a win-win situation for both sides.

Students gain valuable practical experience and insights into professional life while completing their degree programs. This helps students earn income in their field of study and gain practical and focused experience. Companies benefit from the opportunity to find qualified young talent that

can be hired after completion of their degree with a much smoother onboarding and training process due to the acquired job experience. Working students also bring new approaches and ideas with them from their degree programs which helps to enrich the companies employing them. Working students normally work up to 20 hours a week and make an effective and important contributions to their employers’ business success.



Birthe Kolodzey

Co-op student in the Marketing and Communication team

Working student Birthe Kolodzey is no stranger to the company having completed her six-month intern semester at Brabender Technologie. In conjunction with her degree program (International Business Administration), she has been working on Brabender Technologie’s new social media presence since January 2021 and regularly posts content in the form of photos, videos and articles. She is also involved in preparing FLUX Magazine, trade fair preparations or updating factory standards.



Denise Peters
Co-op student in the Technical Center

Denise Peters has been contributing her wealth of theoretical and practical knowledge to the Technical Center since May 2021. Denise is an industrial mechanic and is currently completing her Bachelor's degree in Process Engineering in the energy technology discipline. She particularly appreciates the diversity of her responsibilities, which include measuring the bulk density of various samples or recording measurement samples.



Ajay Manhas
Co-op student in the Technical Center

Ajay Manhas' key reason for wanting to be employed by Brabender Technologie is the fact that the global company is a leader in launching innovative technologies to the market it serves. Having completed his Bachelor's degree in Mechanical Engineering, he is pursuing his Master's majoring in digitalization and automation. He has been a co-op student in the Technical Center since May 2021, where his day-to-day activities include test data capture and analysis and database work.



Bhargav Sanchania
Co-op student in the Mechanical Design Engineering team

Bhargav Sanchania joined the Mechanical Design department in October 2021 as the latest student recruit. Sanchania has a Bachelor's degree in Mechanical Engineering, has experience as a mechanical design engineer and is pursuing his Master's degree. He is highly motivated, passionate and creative, and brings extensive practical knowledge to the party. Bhargav is currently providing support to the Mechanical Design Engineering team in ongoing and new design projects.



Dennis Klotzbach
Co-op student in the Mechanical Design Engineering team

Dennis Klotzbach has been working in the Mechanical Design department since March 2020. He has a broad range of theoretical and practical experience. What Dennis particularly appreciates about his work at Brabender Technologie is that he is given a great deal of freedom and responsibility, as a working student. For example, he has already supervised an entire project from start to finish in collaboration with a design engineer.

Agency in Poland

Bagsik

Bagsik has been BrabenderTechnologie's exclusive agent in the Polish market since 2020. What does the name stand for and who are the people behind it?



When Rudolf Bagsik, CEO of Polish commercial agency Bagsik Sp. z o.o., and Lars Wehren, Head of Sales Europe & Americas at Brabender Technologie, met for the first time at Interplastica 2008 in Moscow, they hit it off straightaway. "As early as May of the same year, our two companies shared a trade fair booth at Plastpol in Kielce," Rudolf Bagsik relates. That's because not only was the chemistry right between

both partners, they also complement one another perfectly, as the Polish company models the entire extrusion process in its portfolio and was therefore able to ensure the quality of manufactured products – from material feeding to molten mass output.

24/7 local contact for Brabender Technologie's customers

And the partnership was ramped up further. For two years now the

Polish agency has been looking after Brabender Technologie's customers in all sectors on an exclusive basis. Bagsik not only commissions plants, but also carries out repairs and handles the entire Service process. To make this happen, the company with its current headcount of 13 can be reached by phone 24 hours a day – all the way up to the CEO. Every employee can also do every job, and they are continuously



Basically, BrabenderTechnologie's expertise is what thoroughly appeals to its Polish agent (that also represents two other international companies). Its many years of feeding systems experience and superbly equipped laboratory always enable perfect solutions to any conceivable problem to be found and actioned. And Rudolf Bagsik is also optimistic about the (shared) future. "We are just planning to employ an extra member of staff exclusively for Brabender customers." ■

comparing notes, meaning that rapid assistance can always be provided to answer questions or to solve problems. Furthermore, Bagsik helps its German partner to acquire new customers in the domestic market.

Successful partnership

After graduating with a mechanical engineering degree from the Silesian University of Technology in Gliwice, company founder Rudolf Bagsik's career included working as a design engineer for a mechanical engineering company in Bad Oeynhausen, specializing in plastics production facilities. He set up his own sales and consultancy business in Gliwice in 1999, focusing on the plastics processing industry. Given increasing demand for machinery, he opted to make more effective use of his know-how and to provide solutions himself. The company is now a leading manufacturer of rotary filtration systems, which operate continuously, automatically, at process and pressure constancy

and optionally with or without an integrated backwash function. The company's portfolio also includes disc and piston screen changers, as well as plastic melt control technology incl. pressure and temperature sensors. Just recently, the company expanded by adding a new building at its site in Zabrze in the Katowice special economic zone, where machinery as well as measurement and control equipment are now produced.

Fast, expert, reliable

The CEO is particularly sold on the prompt, uncomplicated working relationship with BrabenderTechnologie's corporate headquarters. "It is unbelievable," Rudolf Bagsik is delighted to say, "when we send an inquiry from a customer, we often receive a response or even a quotation from headquarters in no time at all." There is close cooperation in particular with Andreas Habrich on new customer acquisition, with Manuel Stiller on all spare parts issues and with Klaus Plien in the food segment.



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News

New career springboard

Brabender Technologie is raising its profile in the employment market by launching an entirely new landing page. The company is using this modern, target audience-specific vehicle to showcase itself as an attractive employer. On karriere.brabender-technologie.com/en/ interested job seekers can not only obtain full information about vacancies here, but also learn more about the company's philosophy as well as career opportunities and options within the organization. However, Brabender Technologie not only endeavors to recruit qualified staff on the employment market,



but also nurtures its own "new blood". In addition to the working students currently employed, two trainees will, for the first time, be commencing their apprenticeships at company headquarters in Duisburg in August 2022.

SKZ Workshop: "Feeding for Compounding Processes"

A new workshop highlighting the importance of precision-feeding bulk materials will take place in Würzburg on May 5, 2022. That is because accurate feeding as part of compounding processes has a significant impact on product qual-

ity. Experienced course instructor Bernhard Hüppmeier will use actual examples and practical demonstrations to provide the necessary specialist knowledge and will report on current feeding systems news and applications. Course participants benefit from tailored information, will avoid application errors and therefore save time and money.



To register, please call +49 931 4104-164 or send an email to anmeldung@skz.de

Bike-Leasing and cycle safety training

Simply cycling past all the traffic jams and doing something for your health – bike commuters often have the edge in city traffic, especially when riding e-bikes. Employees have therefore been able to cycle to work on company bikes since 2019. 27 colleagues have now taken advantage of the offer of leasing an e-bike through the company (www.bikeleasing.de). Appropriately enough, two bike safety training courses with a total of ten participants were held in October. Further dates are being planned for this year. Brabender Technologie took part in the Duisburg city cycling campaign for the second time and was represented by 13 employees and members of their families. Together, they cycled 4,758 kilometers and saved 699 kilograms of CO₂. A great achievement!



International Trade Fairs 2022

You can meet up with BrabenderTechnologie's experts at the following in-person trade fairs in 2022:

Anuga FoodTec, Cologne	April 26 to 29, 2022
Solids, Dortmund	June 22 and 23, 2022
Powtech, Nuremberg	August 30 to September 1, 2022
K 2022, Duesseldorf	October 19 to 26, 2022

Technical Column

Flexibility delivered as standard?

Read how you will benefit from Brabender Technologie applying its feeder sealing concepts and modular manufacturing components approach.

We are pleased to share that we have good news regarding the safety of our customers when using hazardous dusty ingredients. Our model DDSR20 2.0 has easily passed all our pressure tests and will be soon ready to be OEB certified. To insure our feeder is dust tight, our screw tubes will be modified to include a solid polyurethane sprue bonded to the twin screw tube and the vertical outlet. This is a critical area due to the shape of the tube and the polyurethane material is flexible enough to provide a dust tight seal.

We continue to expand our current design of shaft seals on our feeder lines. Our smallest feeder the MiniTwin (see p. 10/11) now incorporates the new seals and we are also applying the technology to our largest feeders the DDSR60 and DSR103 with the goal of having a common seal design across this whole product line.

In our FLUX 11 magazine, we presented our trendsetting **modular concept**, using DDSR40 2.0 and

DSR67 2.0 feeders. This concept has allowed us to achieve a high degree of standard flexibility – a contradiction in terms. However, by consistently implementing a modular philosophy, we have given our DSR and DDSR feeder family a very high degree of flexibility by cleverly combining the standard components of different sizes of feeder.

We are now extending this **modular system** to our DDSR60 and DSR103 feeders. This means by using many identical components, we can easily modify feeders to a different model.

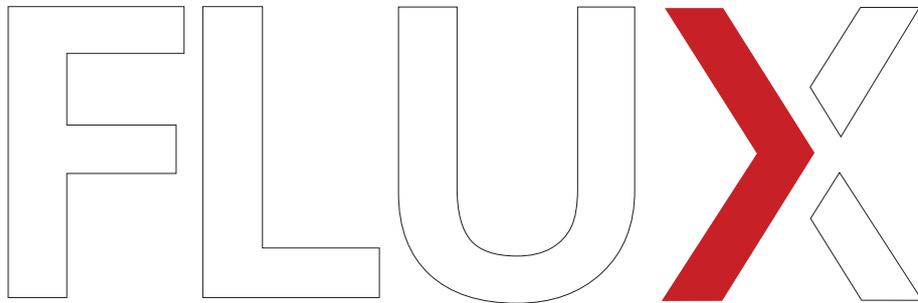
This modular construction has many benefits to you. When you have a feeder from this family, you have the flexibility to change if your process or ingredient changes. Even though our feeders are long lasting, you also benefit from quicker spare part delivery as the more common components are easily inventoried.

We are constantly standardizing our products in a consistent strategy both in shaft sealing systems



Dr. Günter Kuhlmann,
CEO of Brabender Technologie

and modularity. We are working to reengineer our entire product portfolio. ■



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