



FEEDING SOLUTIONS
PLASTICS



PLAS

HERE TO STAY – PLASTICS IN USE AROUND THE WORLD

Plastics are hard-wearing and durable materials and have multiple applications. Adhesives that incorporate plastics can, for example, substitute for weld seams. This multi-functional material is often used to make electrical components as well. Regardless of where engineering plastics are used, the standards that they have to meet are always very high.

What matters most in manufacturing high-performance plastics is precision, meaning that they need to exhibit the desired characteristics.

Brabender Technologie's high-tech feeders are able to meet this challenge – they feed the required raw materials to the desired standards of reliability and precision. Compounding different powders, additives and fibers produces premium engineering plastics in granular or pellet form. Feeders from Brabender Technologie are of course also used for their further processing in film, sheet, profile and pipe extrusion lines. Furthermore the production of master batches is another industrial segment in which Brabender feeders are in operation worldwide.

PRECISION

FEEDING
PROCESS RELIABILITY

TIC

POWDER

ADDITIVES

FLEXIBILITY

FIBERS

WEIGHING
PELLETS

DISCHARGING

FILLERS

PIGMENTS

The plastics industry is permanently developing new or improved formulas. These include new raw materials. Feeders therefore have to be flexible and versatile in order to be able to handle these innovations.

TECHNOLOGY IN OPERATION



Discharge characteristics



Flow characteristics



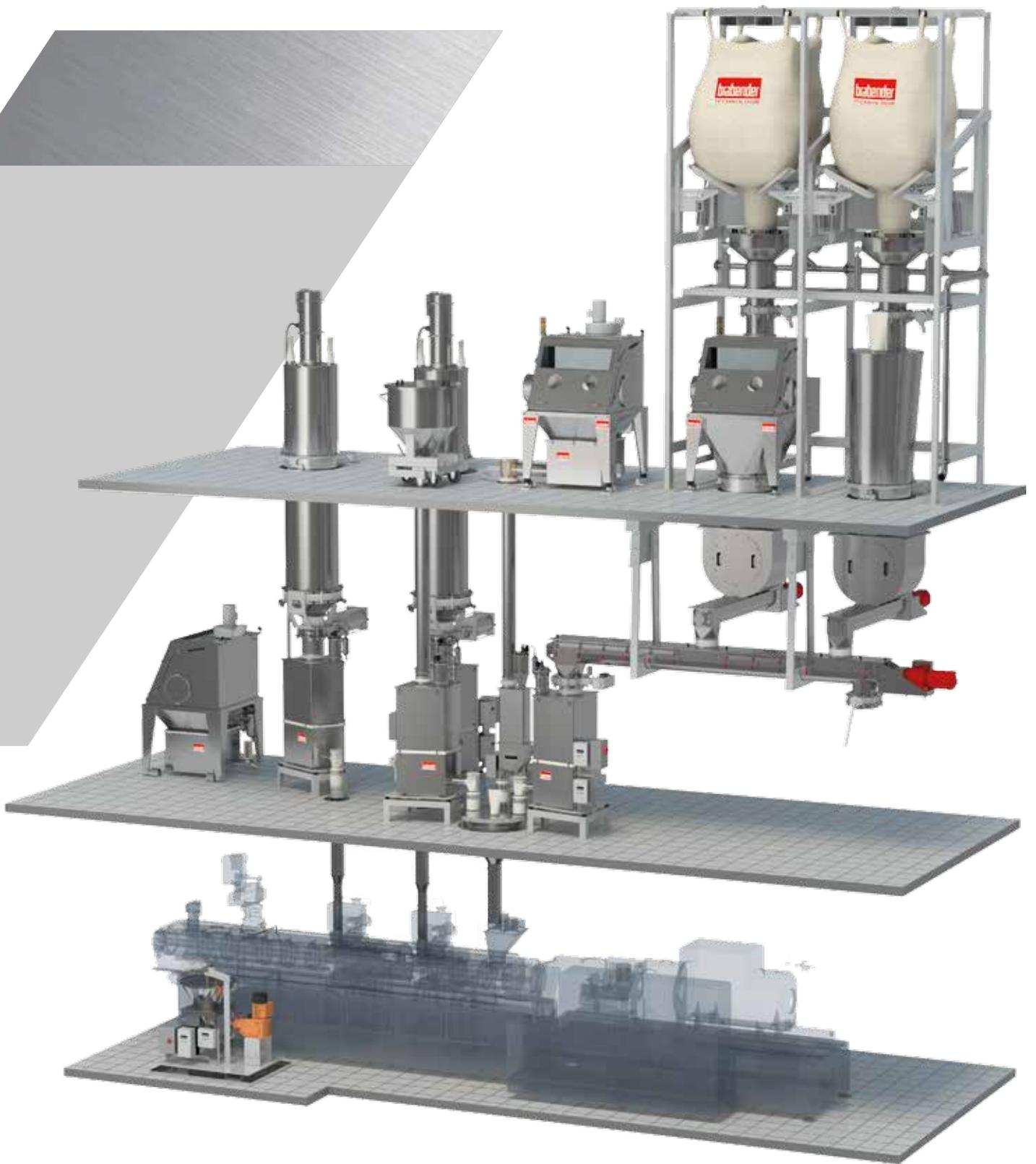
Gravimetric feeders in operation

MAXIMUM PRECISION GUARANTEED

Brabender Technologie has an in-depth knowledge of plastic industry requirements and provides high-performance equipment that can perform even the most sophisticated feeding functions. Thanks to state-of-the-art weighing technology our equipment operates to an optimum degree of precision – both in continuous operation and batch feeding environments.

The appeal of Brabender Technologie's feeders lies in their sound design and engineering.

Regular maintenance ensures that they function accurately and reliably for many years. Several low-maintenance components reduce lifecycle costs. Simple handling also increases efficiency – for example a fast bulk ingredient changeover capability as well as easy cleaning. Control systems with intuitive operator guidance enable individual feeders and entire process lines to be operated easily and conveniently.



> PRECISION-FED

We provide feeders with analog and digital load cells. We recommend digital load cells – the centerpiece of Brabender’s gravimetric feeders – if precision feeding is required. Here we combine digital signal processing with a vibrating wire technology. Brabender Technologie has partnered with the inventor of the vibrating wire load cell for 35 years now.



Featuring an internal resolution of 1:4,000,000 and a measuring cycle time of just 20 to 30 milliseconds, the digital load cell delivers extremely accurate data to the controller in no time at all. A software filter also helps to dampen any vibrations and to deliver long-term stability. Last but not least a serial interface at the load cell enables data to be exchanged quickly and reliably.





FEEDER OPERATING PRINCIPLE

An all-rounder: the FlexWall®Plus metering feeder with its paddle-massaged flexible hopper is the main type of feeder used for plastics. It ensures consistent screw filling levels and zero-degradation ingredient mass flow – particularly important when handling sensitive bulk ingredients or those with poor flow characteristics. The trapezoidal design of the hopper aids the natural flow of the bulk ingredient, which is also assisted by the amplitude-adjustable paddles. Paddle frequency can be specifically adjusted to match bulk ingredients and their flow characteristics.



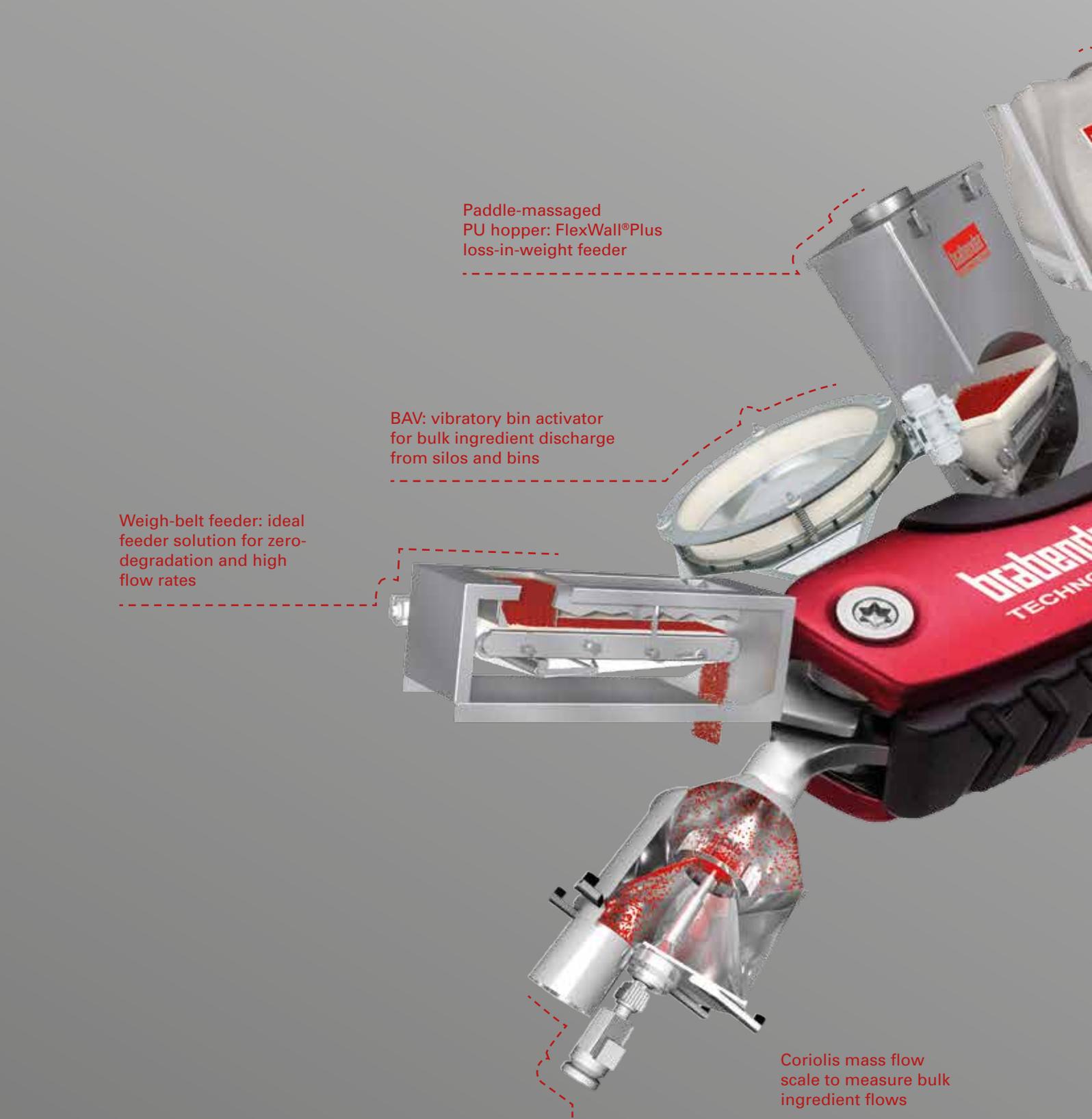
Glass fibers for compounding processes



Fillers/additives



Plastic pellets



Paddle-massaged
PU hopper: FlexWall®Plus
loss-in-weight feeder

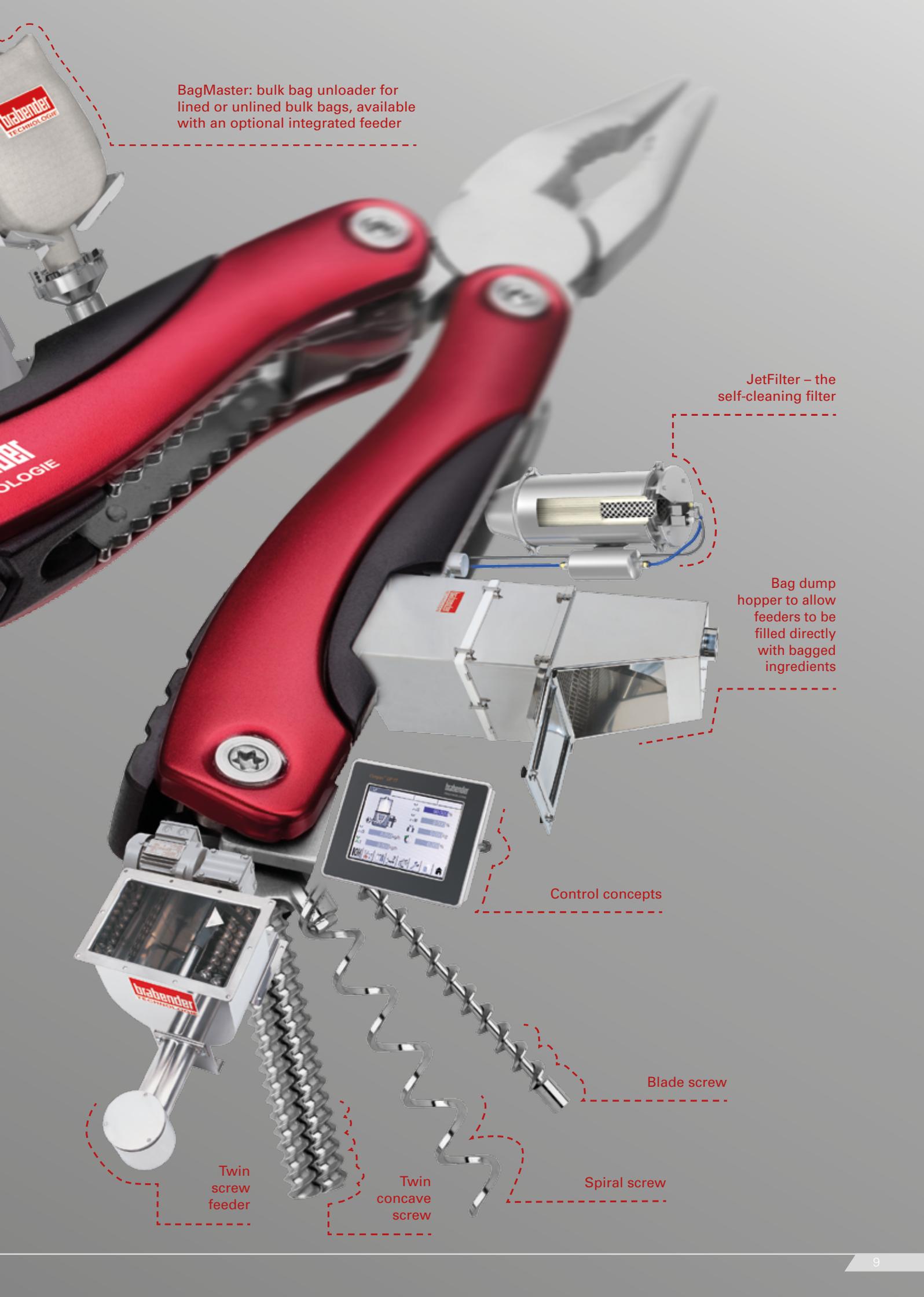
BAV: vibratory bin activator
for bulk ingredient discharge
from silos and bins

Weigh-belt feeder: ideal
feeder solution for zero-
degradation and high
flow rates

Coriolis mass flow
scale to measure bulk
ingredient flows

> MULTI-HERCULEAN-TASKING

Everything you need: digital and analog feeding technology for the processing of powders or pellets and compounding as well as simple bulk-ingredient changeovers and fast cleaning. Our versatile range of products is well able to manage the herculean task of delivering the optimum feeder for every type of bulk ingredient used in the plastics industry.



BagMaster: bulk bag unloader for lined or unlined bulk bags, available with an optional integrated feeder

JetFilter – the self-cleaning filter

Bag dump hopper to allow feeders to be filled directly with bagged ingredients

Control concepts

Blade screw

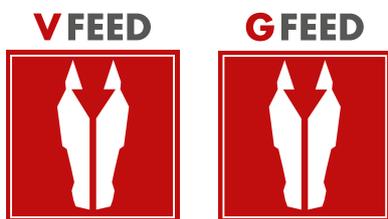
Twin screw feeder

Twin concave screw

Spiral screw

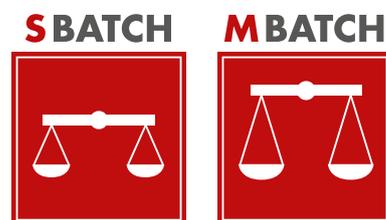
> DIVERSITY NECESSITATES GUIDANCE

Feeding, weighing, discharging and control are our core skills. To provide you with optimum guidance to the wide range of options we offer in various segments, we have branded our equipment in accordance with these segments. This enables you as a customer to identify all Brabender Technologie equipment straightaway and to categorize it according to requirements.



PREMIUM-FINISH FEEDERS

Our V-FEED and G-FEED brands provide you with a range of different volumetric and gravimetric feeders (according to volume or weight) to handle your bulk ingredients. Thanks to state-of-the-art technology and premium workmanship, these machines deliver maximum-accuracy results. All machines can be custom-enhanced at any time and adapted to meet modified production circumstances.



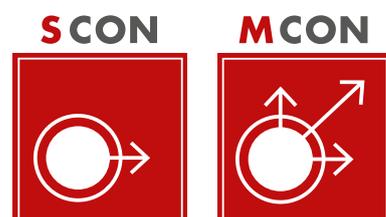
PRECISION WEIGH-BATCHING

Brabender Technologie offers a range of different solutions branded S-BATCH und M-BATCH for the automatic and accurate weigh-batching of bulk ingredient quantities. These facilitate single or multiple ingredient weigh-batching in accordance with the "loss-in-weight" or "gain-in-weight" principle.



RELIABLE DISCHARGE

D-CHARGE is the Brabender Technologie brand that covers a range of products for discharging your bulk ingredients. Be it bagged ingredients or ingredients from bulk bags, silos or other types of bin – our discharge aids enable you to discharge any kind of bulk ingredient with no hassle.



CONTROL SYSTEMS USING SMART SOFTWARE

The S-CON and M-CON brands are the control system solutions of Brabender Technologie. Be it single feeder or multiple feeder control systems, feeder-integrated or control cabinet-installed, thanks to our smart systems up to 16 feeders in a single process line can be controlled if required.

OUR PLASTICS SPECIALISTS

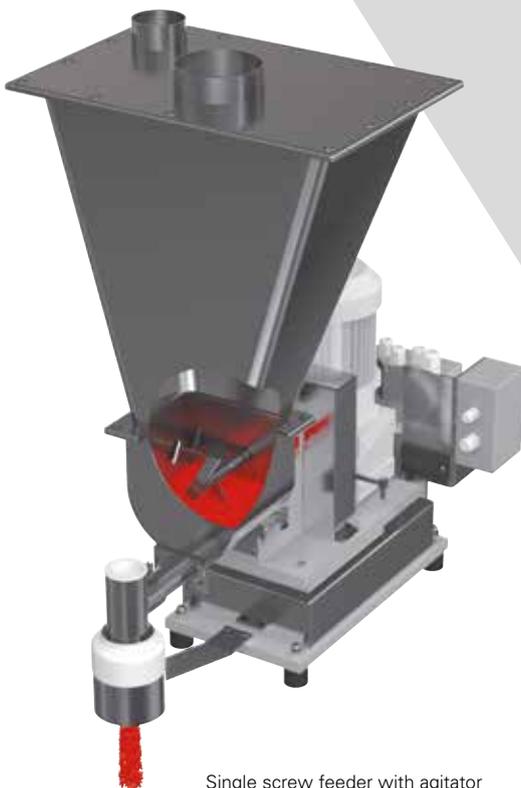
Be it the FlexWall®Plus or with-agitator version, our screw feeders feed your bulk ingredients continuously or batch-wise, volumetrically or gravimetrically and always deliver precision. The various bin sizes and types of screw available means that they can be perfectly matched to your production needs and processes. You can rely on that!

A choice of either a stainless steel hopper with agitator or a flexible polyurethane hopper with external massage paddles ensures proper bulk ingredient flow. The twin screw loss-in-weight feeder with stirring agitator is the best feeder for powders that have extremely poor flow qualities.

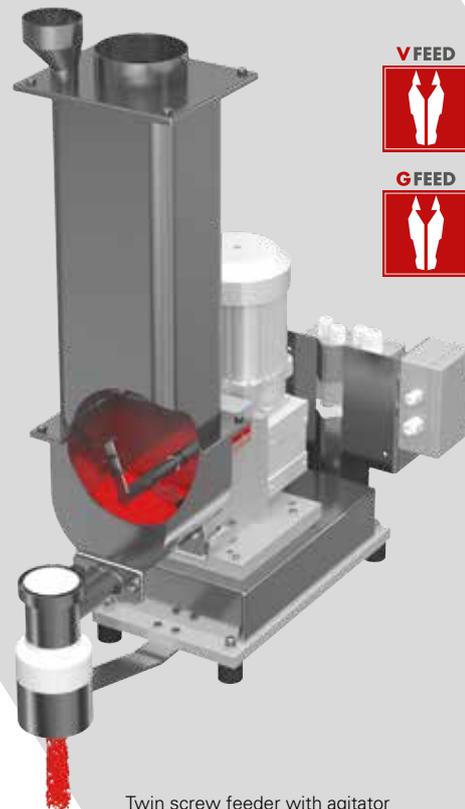


Paddle activation outside the product space

It can be combined with an agitator in the bin – for integrated activation from inlet to outlet. Self-cleaning screws in combination with a special design simplify cleaning and speed up bulk ingredient changeovers.



Single screw feeder with agitator



Twin screw feeder with agitator

TECHNOLOGY OVERVIEW

Brabender Technologie provides feeders for all applications and bulk ingredients. Where high feeding performance is required, we recommend our weigh-belt feeders with a maximum feed rate of 150 cubic meters per hour. Our vibrating tray feeder specializes in zero-degradation feeding of sensitive or brittle bulk ingredients. For liquids we offer loss-in-weight feeders with a range of different pumps.



Vibration technology: vibrating-tray loss-in-weight feeder



Weigh-belt feeder: ideal feed solution for high feed rates



Fluid feeding: loss-in-weight feeder with controlled feed pump

> DISCHARGING

Problems can arise during discharge or emptying of bulk ingredients, which can cause further production process delays. Brabender Technologie has the solution to this problem: our discharge aids, like the BagMaster or BagDumper, enable you to reliably deliver bulk ingredients with poor flow qualities to the feeding process.



BagMaster
bulk bag unloader



BagDumper



Bagged ingredients and pellets or powder from bulk bags can be discharged easily and reliably. Our bag dumpers and bulk bag unloaders are also available with integral metering feeders. This saves time and money. We also provide vibrating discharge aids for silos and bins.

> CONTROL

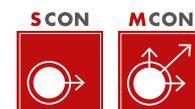
S-CON and M-CON enable you to control individual gravimetric feeders as well as complete systems. If needed our service engineers can access your system via the Internet to perform remote maintenance. This is practical, saves time and is an inexpensive alternative to an on-site visit.



Operating unit for individual
gravimetric feeders



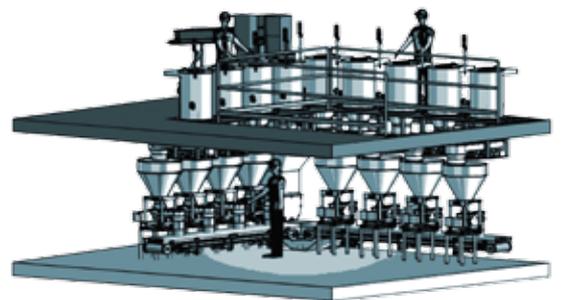
Multi-feeder control featuring
process visualization



> CLIENT-PLUS



Why not get in touch with us – we would be delighted to provide you with the advice you require. We help you to identify your specific needs and recommend the right equipment. You can test out how our feeders handle different bulk ingredients at our test labs. To enable you to use our equipment effectively at your production facilities, we train your staff on how to operate the machinery properly. Our maintenance agreements enable us to provide you with a practical, no-risk solution for long-term reliable use. If your production parameters change, we can help you search for a suitable solution.



› SERVICE



Screw tubes in the spare parts warehouse



Modification of a weighing platform



Remote maintenance and support



Retrofitting/Modernization



Screw replacement



Professional service

IN GOOD HANDS – FAST AND UNCOMPLICATED

You first become acquainted with our after-sales service, which we provide to you and your Brabender equipment when the machinery is commissioned. We will always provide you with a professional service, ranging from our Hotline via remote maintenance through service engineers visiting your premises. Our branches and service partners around the world enable us to offer you an extensive

customer service and stocking of all spare parts and consumable worldwide. Personal attendance by one of our service engineers to diagnose and eliminate a fault with one of your gravimetric feeders is not always necessary. In certain cases we can conveniently remote-access your microcomputer control system using the "TeamViewer" program, check the system and eliminate any faults or errors.



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