



# PRODUCTS

OVERVIEW BROCHURE

## > YOUR SPECIALIST FOR FEEDING, WEIGHING AND DISCHARGING



Since its founding in Duisburg, Germany, in 1957, Brabender Technologie has been working with bulk ingredient feeding, weighing, discharging and flow metering. Through decades of experience and thousands of tests we have gained knowledge and have become one of the world's leading feeder suppliers. With regional headquarters in Germany, North America, Russia, Dubai, China and India and a worldwide sales, consulting, service and spare parts network the business today operates as an international group with the highest quality standards.



## YOUR BULK INGREDIENTS – OUR CHALLENGE

The portfolio of Brabender Technologie comprises gravimetric feeders, volumetric feeders, batching systems, discharge aids and flow meters for bulk ingredients. Whether for use in the plastics, chemical, pharmaceutical, food, pet food, detergent, ceramics, glass or construction material industries – the customer and his requirements are most important. Before we submit a quotation, we analyze your ingredient and work with you to determine your particular needs. Continuing this with our 50 years of experience we select the best device from our extensive product line which is capable of

feeding any conceivable ingredient. In addition, all our machines can be further modified to fit the individual needs of our customers.

In addition to extensive process advice we have many global services such as feeding and discharging trials in our test labs, start-ups and operator training on site or at our training center. We also offer maintenance agreements, customized screws, spare parts and repairs as parts of our comprehensive after-sales services at reasonable prices.

# > FEEDING





## IT'S ACCURACY THAT MATTERS

To ensure excellent quality of the final product, bulk ingredient metering requires maximum accuracy. Therefore metering feeders are needed that are best suited to the particular ingredients used so that reliable continuous ingredient flow and metering without malfunction are ensured at any time.

According to the motto "For every bulk ingredient the right solution" Brabender Technologie offers a comprehensive product line of different loss-in-weight feeders and weigh-belt feeders for the entire range of bulk ingredients from

powders to coarse-grained ingredients and from fibers to flakes. The robust construction and a highly sensitive weighing technology provide high accuracy and reliable operation even under tough production conditions.

Our feeders are designed for universal use but can still be modified to our customers' particular needs. As a result, metering feeders from Brabender Technologie are capable of feeding any conceivable bulk ingredient. For less demanding metering requirements we also offer most feeders as volumetric versions without scales.

# > FEEDING

With the brands V-FEED and G-FEED we offer you different volumetric and gravimetric feeders for your bulk ingredients. Thanks to modern technology and high-end manufacturing our equipment provides optimum performance. All feeders are designed for a wide range of applications and bulk ingredients but can also be modified allowing you to quickly react to changes in the market.

**V FEED**



**G FEED**



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



Paddle-massaged PUR hopper:  
loss-in-weight FlexWall®Classic feeder



Stirring agitator technology:  
loss-in-weight single screw feeder



Stirring agitator technology:  
loss-in-weight twin screw feeder



Vibration technology:  
loss-in-weight vibrating tray feeder



Vibration technology:  
loss-in-weight DualTray feeder



Liquid feeding:  
loss-in-weight feeder with variable speed metering pump



Dynamic belt weighing:  
weigh-belt feeder for high feed rates

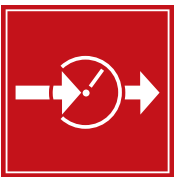
Gravimetric Feeders	Volumetric Feeders
Loss-in-weight FlexWall®Plus feeder	FlexWall®Plus feeder
Loss-in-weight FlexWall®Classic feeder	FlexWall®Classic feeder
Loss-in-weight single screw feeder with stirring agitator	Single screw feeder with stirring agitator
Loss-in-weight twin screw feeder with stirring agitator	Twin screw feeder with stirring agitator
Loss-in-weight vibrating tray feeder	
Loss-in-weight DualTray feeder	DualTray feeder
Loss-in-weight feeder for liquids	
Weigh-belt feeder	

*“No matter what bulk ingredient – our feeders offer optimum results.”*

Bernd Hüpmeier,  
Sales Manager



## **B PLUS**



With B-PLUS Brabender Technologie offers flow meters for bulk ingredients. They are ideal supplements to our feeders and meter bulk ingredient mass flow according to the principle of Coriolis force measuring.

FeederScout is an intelligent program for automatic determination of the optimum gravimetric or volumetric feeder. After entering the basic application data, the program finds the technically and economically most appropriate feeder from Brabender Technologie with just one click – on request with a quotation attached.

## **USED EQUIPMENT**

Brabender Technologie has a well-assorted stock of used feeders, demonstration units and exhibition equipment. All items are refurbished and in perfect condition. We can gladly provide you with information about current stock items and their performance data.

## **SERVICE**

After your purchase of a Brabender Technologie feeder we will continue to support you with our different services. In our training sessions we teach your personnel the professional handling of our machines. With our maintenance agreements we offer you a convenient and risk-free all-in-one solution for the preventive maintenance at reasonable flat rates. In our test labs we help you choose the right feeder for your bulk ingredients and work out solutions when your production conditions have changed.

# >WEIGHING







## HIGH-ACCURACY WEIGH-BATCHING

Irrespective of what industry our customers come from: accuracy is essential to all weigh-batching applications. Batching accuracy cannot be achieved without high-tech components such as high-resolution load cells and intelligent controls with sophisticated software for fully automatic recipe-driven weigh-batching at high accuracy without failure.

From our MicroBatch scale up to our fully automatic multiple ingredient batch systems:

Brabender Technologie offers a variety of systems for small to large single or multiple ingredient batches. Our customers profit from our expert advice and from our know how, acquired over many decades. Thanks to this experience we have many batching systems for a wide range of bulk ingredients with different characteristics. However, they can still be further modified to customers' particular needs – for optimum and highly accurate weigh-batching.

# > WEIGHING

For automatic and accurate single and multiple ingredient weigh-batching Brabender Technologie offers a variety of solutions under the brands S-BATCH and M-BATCH, including loss-in-weight feeders, gain-in-weight systems and weigh-belt feeders. Thanks to their intelligent controls, our systems offer optimum performance also in discontinuous weigh-batching processes.

**S**BATCH

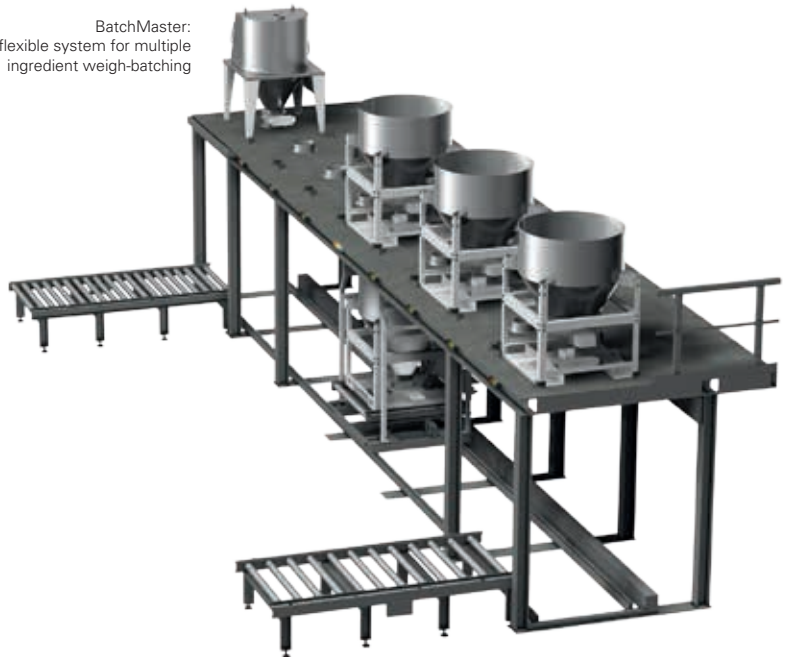


**M**BATCH



MicroBatch scale: gain-in-weight batching of small ingredient amounts

BatchMaster: flexible system for multiple ingredient weigh-batching



Loss-in-weight batch feeder



Multiple ingredient gain-in-weight batching system with hopper scale



Weigh-belt feeder: ideal batch solution for large amounts of ingredient

Loss-in-Weight Batching	Gain-in-Weight Batching	Other
BatchMaster	BatchMaster	Weigh-belt feeder with batch control
Loss-in-weight feeder with batch control	MicroBatch scale	
	Hopper scale	

*“When it comes to single or multiple ingredient batching – Brabender weigh-batching systems ensure high accuracy.”*

Michael Weller,  
Consulting  
and Sales

## WEIGHING WITH BRABENDER

For accurate weigh-batching of bulk ingredients different feeder systems are used. Especially for single ingredient batching loss-in-weight feeders with batch control are applied. For this, generally all of our loss-in-weight feeders can be used. It is the intelligent control software that turns the continuous feeders into high-tech batch scales. The principle: The filling level in the feeder hopper is sensed by the load cell in terms of weight and transmitted to the controller. After the setpoint has been entered, the controller calculates the target weight by subtraction. After the batch process has been started, the controller automatically switches the feeder off when the target weight has been reached. Digital high-resolution load cells, serial weight data transmission to the intelligent controller and most sophisticated methods of approaching the target weight gram by gram guarantee the high accuracy of loss-in-weight batching systems from Brabender Technologie.

When batching multiple ingredients, the gain-in-weight principle is mostly applied. This means that the individual bulk ingredient batches are fed into a weighed hopper by mainly volumetric feeders. The control system registers the hopper's weight. After the individual setpoints have been entered, the controller calculates the respective target weights by addition. After the batch process has been started, the control system starts the individual feeders one after the other and makes them feed their batches into the hopper. Here as well, special methods of approaching the target weight gram by gram guarantee high batching accuracy. As a third option especially for large batch sizes our weigh-belt feeders can be used. Here again, switching the controller software over to batch control makes every continuous Brabender weigh-belt feeder a perfect weigh-batching belt feeder.



# > DISCHARGING





## YOUR BULK INGREDIENT STORAGE – OUR DISCHARGE SOLUTIONS

The flow characteristics of bulk ingredients vary massively due to their diverse compositions. This does not only have to be taken into consideration when selecting a feeder but also when it comes to storage and discharge. If, for instance, compaction of an ingredient in a silo results in discharging problems, this may impede the entire production process. In this case, a discharge aid will support the bulk ingredient in flowing out consistently and continuously.

From a simple bag dump hopper to bulk bag unloaders and vibratory bin activators for silos – Brabender Technologie offers different solutions to help you discharge your bulk ingredients. This also applies to difficult ingredients such as extremely poor flowing or floodable ingredients. With our discharge aids we can provide you with a complete range of equipment for bulk ingredient feeding, weighing and discharging – all from a single source.

# > DISCHARGING

D-CHARGE is the Brabender Technologie product line for bulk ingredient discharge equipment. Whether bagged ingredients or ingredients from bulk bags, silos or other bins, every bulk ingredient can be discharged trouble-free with our discharge aids. Our BagDumper and BagMaster are available with an integrated metering feeder. Bagged ingredients can be emptied directly into the feeder with a bag dump hopper in place of a standard extension hopper. The vibratory bin activators BAV and SiloTray are provided for bulk ingredient discharge from silos and other bins.

## D-CHARGE



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



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



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



Bag dump hopper: extension hopper for volumetric FlexWall® feeders allowing to fill bagged ingredients directly into the feeder



BagDumper: modular bag dump station, available with an optional integrated feeder

Silos and Bins	Bulk Bags	Bagged Ingredients
Bin activator BAV	BagMaster	Bag dump hopper (feeder extension)
Bin activator SiloTray	BagMaster with on-board metering feeder	BagDumper (bag dump station)

*“With discharge aids from  
Brabender Technologie your  
bulk ingredients will flow  
out perfectly.”*

Klaus Gubensek,  
Mechanical Engineering  
Manager



## DISCHARGING THE RIGHT WAY

Many of our discharge aids are available in different versions, allowing you to choose exactly the device that best matches your requirements. The bag dumpers from our BagDumper product line are offered as extension hoppers for your feeders allowing you to empty bagged ingredients into the feeder directly, or it can be used as a stand-alone station. The design of the BagDumper station allows modular extension by optional add-on components. The BagMaster bulk bag unloader can be used for customary bulk bags with or without liners and volumes up to 1.5 tons. Thanks to different options available, the BagMaster can be suited to your individual requirements. So, for instance, the station is available with an integrated metering feeder.

With the vibratory discharge aids BAV and SiloTray Brabender Technologie offers two discharge aids for silos and bins, which allow consistent flow even when poor flowing ingredients are used. This also applies to bins with large diameters but small outlet cross sections. Especially with silos it is important to support the bulk ingredient column by an integrated baffle to prevent it from clogging up the outlet. Congestion and bridging are prevented by using the vibratory discharge aids from Brabender Technologie – for consistent discharge of your bulk ingredient.

# > CONTROL







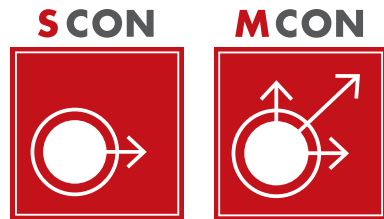
## INTELLIGENT CONTROLS FOR OPTIMUM RESULTS

A fully automatic metering system does not only comprise high-accuracy weighing technology but also intelligent controls with sophisticated software solutions and flexible interfaces. These do not only control the feeding process with its complicated interaction of weighing, metering and regulation functions but also link the metering feeders with other system components such as refill devices and shut-off valves. Above all, however, controls provide a continuous documentation of the feeding process – a must in modern production lines because this is the prerequisite for certification of the user's quality management system.

Brabender Technologie offers single and multiple feeder control systems. Control modules can be feeder mounted creating a stand-alone intelligent mechatronic unit. Alternatively, controls can be mounted in a control panel. Single feeders and multiple feeder systems with control modules in field bus or Ethernet interconnection can either be connected to one of our touch screen operator interfaces by just one single cable, or – thanks to a multitude of interfaces available – directly to most host/PLC systems. Alternatively, the touch screen operator interfaces can be used as additional local operating units. With these options, our controls can be fully interfaced with your control network.

# > CONTROL

The brands S-CON and M-CON represent the controller line of Brabender Technologie. Whether single or multiple feeder control, feeder mounted or mounted in a control panel – thanks to our intelligent systems up to 16 metering feeders in one production line can be controlled easily.



Multiple feeder control solution for gravimetric feeders with feeder mounted control modules for direct connection to a host/PLC system (optionally available with control cabinet mounted control modules)



Loss-in-weight feeder with feeder mounted control modules for connection to host/PLC system or Brabender operator interface



Touch screen operator interface for a single gravimetric feeder



Touch screen operator interface for up to 6 gravimetric feeders



Touch screen operator interface for up to 16 gravimetric feeders

Single Feeder Control	Multiple Feeder Control	Touch Screen Operator Interfaces
Feeder mounted control module ISC-CM plus for host/PLC or/and operator interface connection*	Feeder mounted control modules ISC-CM plus for host/PLC or/and operator interface connection* (1 module per feeder)	Congrav® OP 1T for max. 1 gravimetric feeder
Control cabinet mounted control module Congrav® CB plus for host/PLC or/and operator interface connection*	Control cabinet mounted control modules ISC-CM plus for host/PLC or/and operator interface connection* (1 module per feeder)	Congrav® OP M plus for max. 6 gravimetric feeders**
		Congrav® OP 15 for max. 16 gravimetric feeders**

\* When connected to both a host/PLC **and** an operator interface, the latter serves as an operator interface for local control.  
 \*\* When connected to a host/PLC system via the standard host/PLC interface, the unit serves as an operator interface for local control.

*“Intelligent control  
technology for most  
accurate metering.”*

Jörg Pawlik,  
Electronic  
Development  
Manager



## CONTROLLING WITH BRABENDER

For reliable function of metering feeders it is essential to have an optimum control system that has been suited to and tested with the equipment so that metering feeders and controls complement each other as interactive components. This is only possible if the feeders are run with proprietary control technology. On the other hand, however, there is a trend towards maximum process automation – and thus towards integration of the feeders into system-wide process controls (host/PLC). As this means the manufacturer’s own control components are mostly avoided, users run an essential risk of malfunction.

With Brabender Technologie’s philosophy on controls you do not have these problems. Whether you connect your metering feeders directly to a system-wide host/PLC system or to one of our touch screen operator interfaces – gravimetric feeders from Brabender Technologie are always controlled by our own control components. This is made possible by a multitude of interfaces, with which either the feeder mounted or the control panel mounted control modules or the touch screen operator interfaces themselves can be connected to most host/PLC systems. So that you are always on the safe side with our controls.



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