



Partner of the
milling industry

OUR FOCUS - The optimal packaging for your milling industry products



You produce

- Wheat or rye flour
- Coarse meal and bran
- Baking mixes
- Oatmeal
- Etc.



We have specialised in the filling of your products.

We develop solutions that take into account the quality requirements of the food industry as well as the trends in the international packaging industry. We deliver:

- Bagging systems for valve bags, open-mouth bags, FFS bags and big bags
- Palletisers
- Silos, conveyors, bulk loading technology
- Digital products for process visualisation, warehouse logistics and recording of the plant effectiveness

Our solutions provide you with significant advantages:

- Profit maximisation through optimal product processing with a high weight accuracy, with improved product and moisture protection
- Cost reduction due to a clean working environment and minimised cleaning effort
- Image plus through optimally filled attractive bags that are easy for your customers to handle
- Reduction of delivery costs due to low packing volumes

We are happy to advise you.

In our INSTITUTE we analyse your products and determine the optimal machine and bag design.



PROcheck - The complete view of your packaging process



Maximise your profits with PROcheck.

Using our new PROcheck approach, we examine the potential of our customers' processes. The aim is to optimise machines, systems and plants in such a way that they can operate even more successfully and profitably.

PROcheck

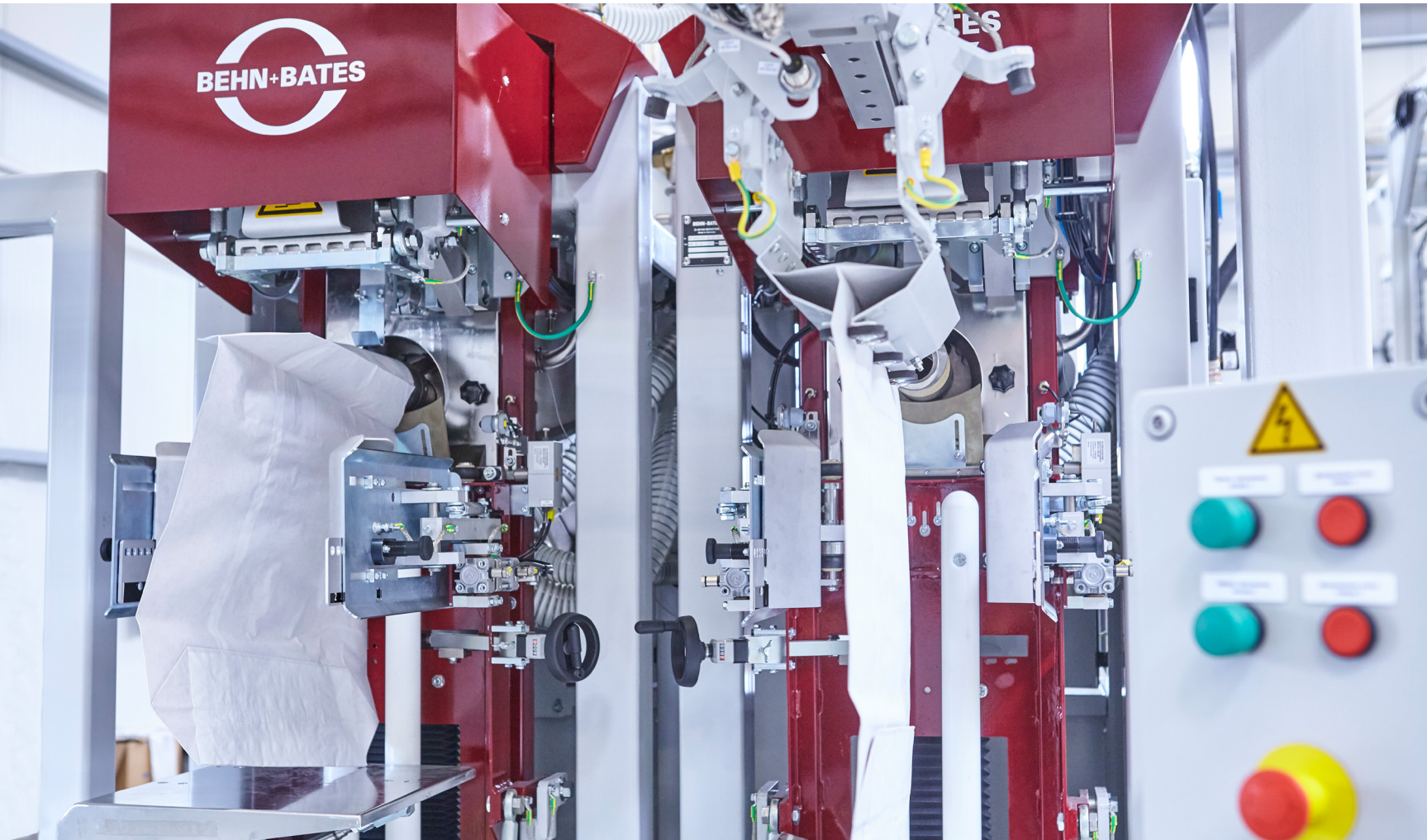
| | |
|---------------------------------------|---|
| Diagnostics | Take advantage of our services, software and analytical equipment, in order to achieve the best possible economic result with your process. |
| Systems & plants | Under the umbrella of our parent company, Haver & Boecker, we have gathered the best brands to give you an installation or system without compromise. |
| Process engineering | Shape your concepts and ideas with our customised, experience-based engineering services. |
| Equipment | Use the correct machine technology, adapted to the specifications of your products, to meet your expectations. |
| Consumables | We advise you on your consumables at every stage of your project; we develop proposals and even provide the consumables. |
| Original parts | Do not compromise; buy BEHN + BATES original parts. Our original parts are your guarantee that your system will be run optimally. |
| Modernisation & conversion | Pick up on new developments and technologies by converting and modernise your plant - and bring it up to the standard you need today. |
| Service | Combine your experience with ours to bring your process to a new level. |

We are there for you.

With our life-cycle approach PROcheck, we improve and extend the service life of your equipment. You thus stay in PERFECT FLOW in the future as well.



Flours, semolinas and coarse meals - Our pneumatic packer as an all-rounder for valve bags



Easy to clean filling chamber



Filling spout with the inflatable sleeve



ELEMENTRA pneumatic packer

Due to the product-dependent adjustable conveying air volume, the pneumatic packer ensures uniform product discharge from the filling chamber. During filling, the special BEHN + BATES deaeration nozzle sucks the air out of the bag.

Your advantages:

- High filling capacities with a low internal bag pressure and minimal dust generation due to the special BEHN + BATES deaeration nozzle with product recirculation to the pre-storage silo.
- Gentle handling of difficult-to-fluidise products through our fully ventilated filling chamber
- Low cleaning due to minimal residual product quantities
- Reduced energy consumption due to minimal air requirements

The technical refinement of our pneumatic packer:

- Filling tube with an inflatable sleeve for valve sealing
- Fine flow dosing, adjustable depending on the product
- Separately adjustable conveying air volumes depending on the product
- Quickly replaceable aeration plate
- Integrated product collecting tray for easy cleaning

Options:

- Automatic conveying air regulation
- Automatic emptying of residual product
- ROTO-LOCK dosing system
- Automatic dosing regulation
- Valve bag closing station with ultrasonic technology
- Low-wear design for abrasive products
- Metal detector, integrated in the filling channel, with a test device for different types of metal

Machine capacity:

- 250 bags/h per spout, 25 kg each
- Filling weights from 5 kg to 50 kg

Type BP - particularly suitable for:

- Fine powder flours
- Coarse meal
- Baking mixes
- Texturized proteins

Type BPV - suitable for:

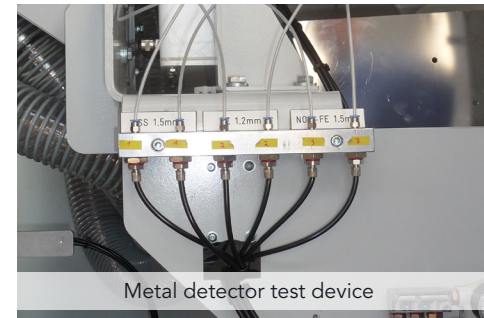
- Bran
- Oatmeal



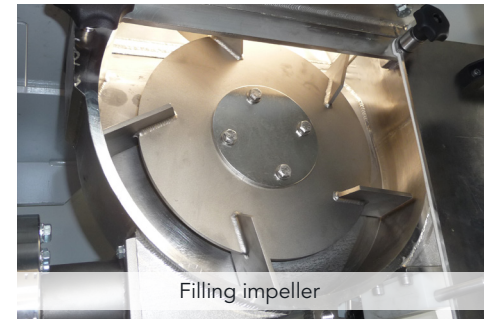
Fastest filling technology for powders - Our impeller packer



Discharge plate for residual product



Metal detector test device



Filling impeller

Our impeller packer stands for fast and low-dust filling, even of finely powdered and easily flowing products. Your product is decisive for the choice of a vertical or horizontal impeller wheel as well as the design of the impeller wheel diameter.

Your advantages:

- High packaging performance due to bag filling without overpressure and minimal deaeration times
- Weight-accurate filling due to coarse and fine dosing
- Optimum pallet utilisation due to particularly low-air and compactly filled bags
- Reliable filling even of air-tight bags for improved product protection
- Reduced maintenance due to the use of low-wear components

Compact bag filling thanks to the sophisticated impeller packer concept:

- Dust-tight sealing of the bag to be filled by means of the BEHN + BATES filling nozzle with the inflatable sleeve

Options:

- Metal detector, integrated in the filling channel, with a test device for different types of metal
- ROTO-LOCK dosing system
- Automatic emptying of residual product
- Valve bag sealing station with ultrasonic technology

Machine capacity:

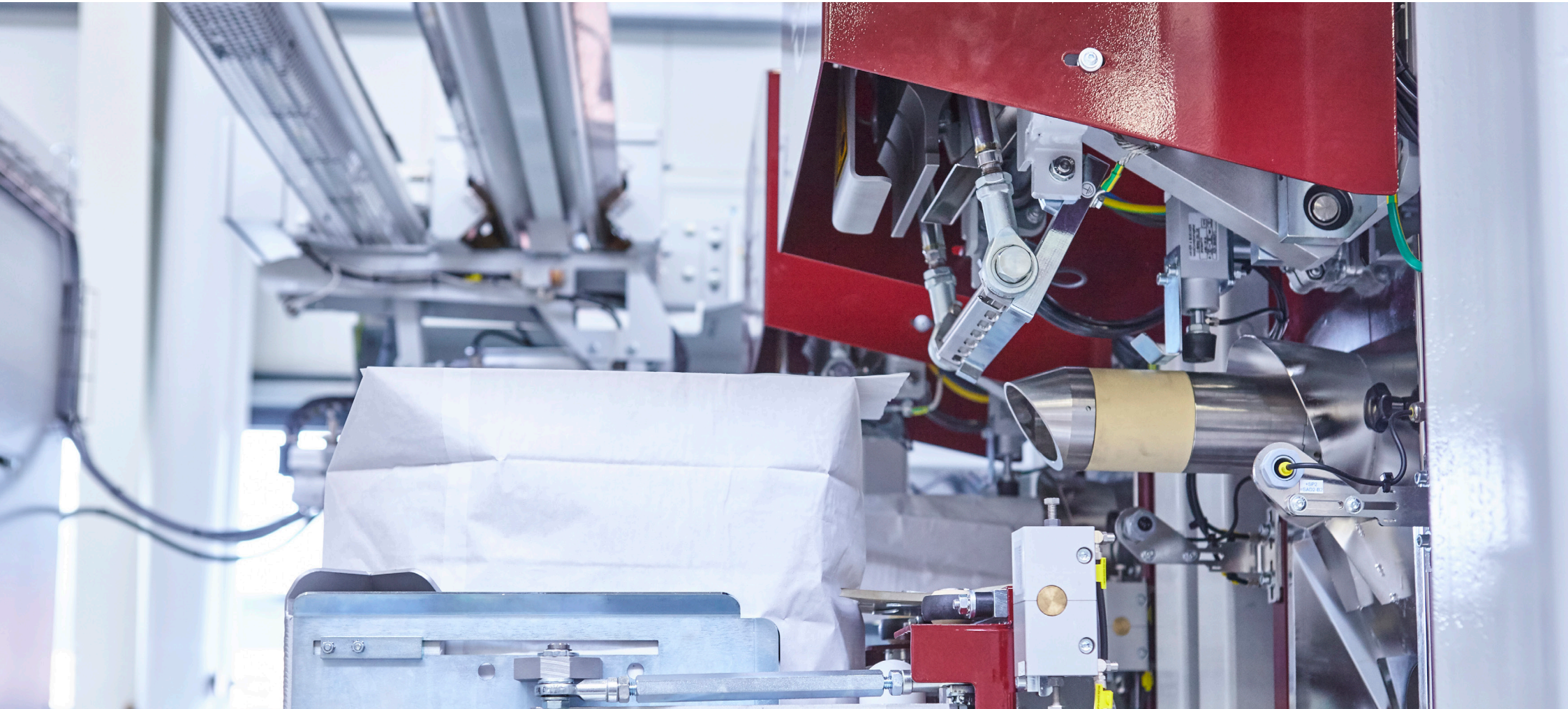
- 300 bags/h per spout, 25 kg each
- Filling weights from 5 kg to 50 kg

Type BTS - especially suitable for:

- Fine powdered flours and mixtures
- Proteins



Your product under seal - Our ultrasonic sealing station



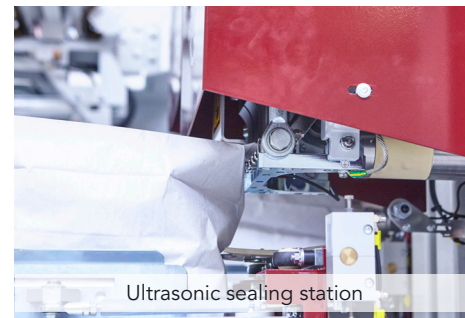
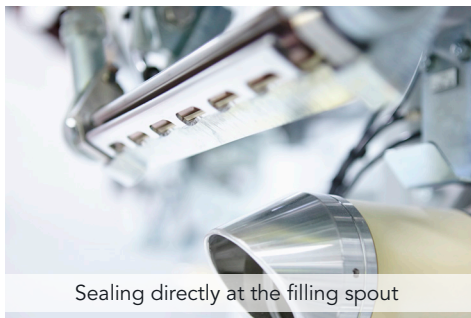
Your products only meet the quality required on the market if they arrive at your customers perfectly protected from external influences. To ensure that this is the case, we equip virtually every filling machine that leaves our production facilities with our ultrasonic sealing station. It closes all valves with a PE coating directly at the filling spout, cleanly and tightly.

Your advantages:

- Optimum product protection
- Maximum cleanliness of the entire filling line
- Space and cost saving integration in the filling machine frame
- Dust explosion protection with ATEX certification

Options:

- Pressure changeover for welding of paper and PE bags
- Double welding seam
- ATEX version for Zone 21



A sign of quality.

It is only in a tightly sealed bag that your product will arrive hygienically to your end consumers - an outstanding quality feature for which you stand with your name.

Straight ahead - Our valve bag applicator



For automation of your bagging system, we offer you our FRONTLINE and COMPACT valve bag applicators.

Your advantages:

- Safe application of the bags through linear movements
- Optimum pre-opening of the valves through opening cones
- Flexible space planning due to free choice of bag magazine
- Reduced maintenance required due to good accessibility
- Easy conversion to different bag sizes

Options:

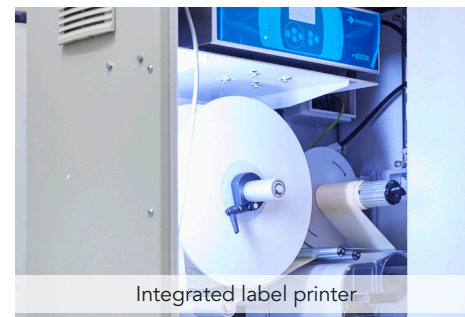
- Integration of a labeller for marking the empty bags
- Design of the empty bag magazine with a bundle magazine carriage, vertical magazine or horizontal magazine
- Extendable versions for later retrofitting of filling spouts to increase capacity
- Motorised drives



Opening cone



Bag placing



Integrated label printer

The special feature.

All of our bag applicators place the bag linearly on the filling spout.

Plug 'n Pack - Our INTEGRA FD



Reduced machine noise, a clean working environment: thanks to our Plug 'n Pack concept, the entire process of bag application, filling and sealing takes place in a dust-tight enclosed cabinet.

Your advantages:

- High cleanliness of the working environment
- Reduced commissioning costs due to complete pre-assembly
- Integrated pneumatic and electric cabinets
- High operating comfort due to the touch panel and large polycarbonate windows for visual control

Options:

- Over-pressurisation with filtered air to create a hygiene zone
- Extendable versions for later retrofitting of filling spouts to increase capacity
- Different bag magazines depending on the desired capacity and space conditions



Empty bag horizontal magazine



Bundle carriage



Vertical magazine

The right filling technology for your product.

Air or impeller.
The number of filling spouts is determined to suit your product. From 1 - 4 nozzles, everything is possible, even retrofitting at a later date.

The high performer - Our ROTO-PACKER



Product entry into the rotating packing hopper



Automatic empty bag placing



Residual product funnel

Highest bagging capacities of up to 2,400 bags/h can be achieved with our ROTO-PACKER for valve bags. The filling spouts on the ROTO-PACKER are mounted on a rotating frame. The bags can be placed on the filling spouts both manually and by our RADIMAT bag applicator. Before discharge, bag sealing is possible directly at the filling spout, using our ultrasonic sealing station.

Our ROTO-PACKER works with the correct filling system for your product: Air or impeller. You decide how many filling spouts your ROTO-PACKER will have: what counts is performance or also your desire for expandability at a later date.

Your advantages:

- Cost efficiency through a central product supply and a central full-bag transport system
- Improved economic efficiency due to a higher performance in a small space
- Clean product handling thanks to an on-demand filling system and ultrasonic sealing directly at the filling spout
- Reduced maintenance efforts due to continuous gentle operation of downstream units
- Simple automation with the RADIMAT valve bag applicator
- Successive increase in production due to an extendable machine design - without changes to the periphery
- Higher maintenance efficiency due to individual filling spouts that can be switched off

Options:

- Horizontal empty bag magazine in an extended version for up to 700 bags
- Alternative version with a roller magazine
- Automatic emptying of residual product
- Second product inlet

Machine capacity:

- 2,400 bags/h,
25 kg each
- Filling weights from
5 kg to 50 kg



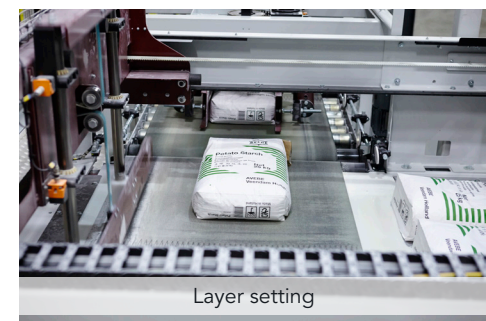
Down to earth and up high - Our TERRAM and ARCUS palletising systems



Press belt



Turning cross



Layer setting

Particularly gentle bag handling; that is what our palletisers stand for, which are produced by our sister company NEWTEC BAG PALLETIZING.

The G300 and G600 palletiser

The filled bags are placed directly on the pallet individually by the gripper robot according to the specified measurement.

The TERRAM palletiser

The palletiser with the bag feed at floor level, capable of up to 1,000 bags per hour. A turning clamp or a cross aligns the bags. The palletiser is low-maintenance and easily accessible for maintenance at all levels.

The ARCUS palletiser

Bag palletising systems from 600 to 2600 bags / hour. These automatic palletisers are suitable for a very wide range of products and bag types. A turning clamp or a cross aligns the bags. The layers are built up row by row, taking into account the shape of the bag. Each layer is balanced and pressed to optimise the pallet geometry. The modular design can be expanded as throughputs and pallet patterns change.

Your advantages:

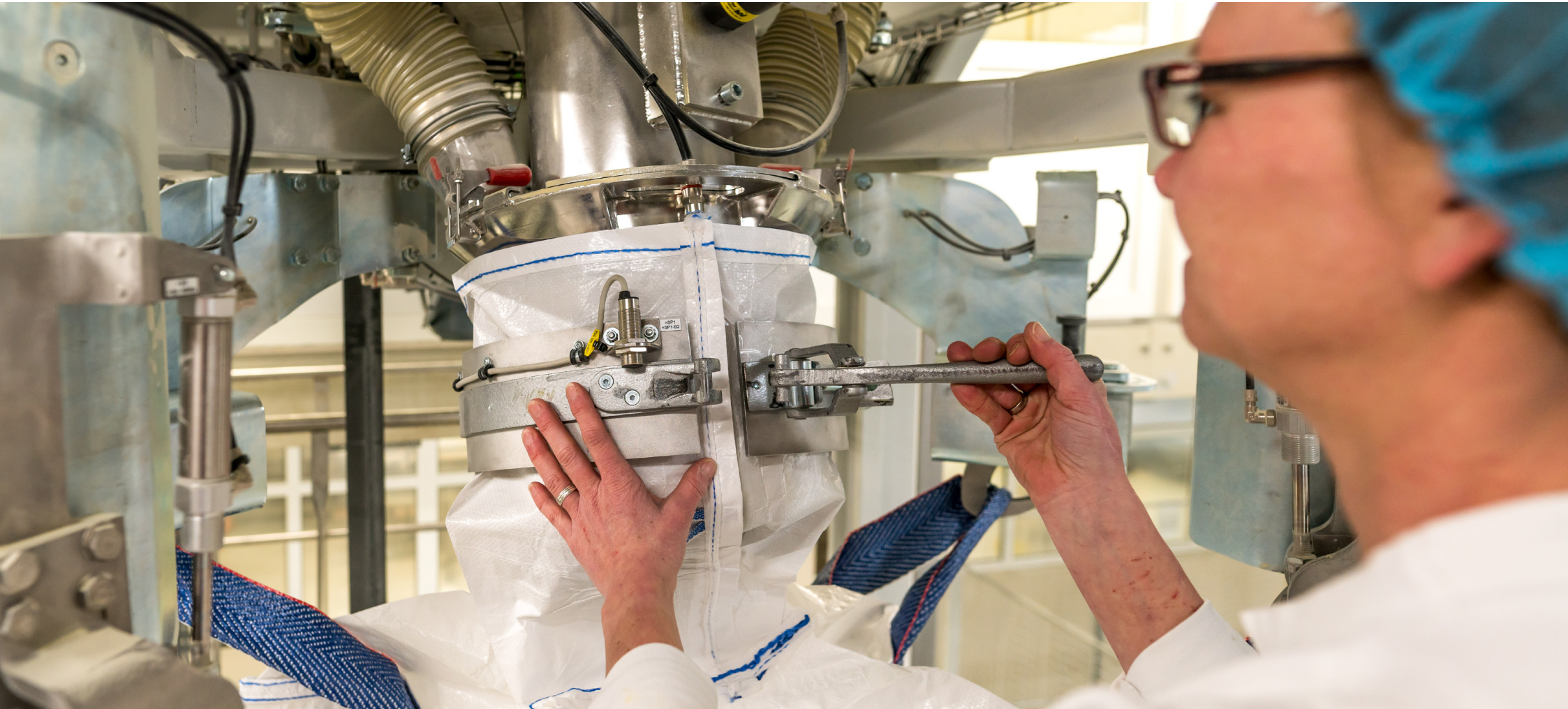
- Project-oriented machine design due to the standardised modular machine construction
- Gentle bag handling due to the full bag gripper, turning clamps or cross and precise positioning on the pallet or stripper plate
- Optimum straight and attractive bag stacks through use of conforming and centering plates as required
- Reliable handling of different bag formats - and also of difficult-to-handle bags with a low fill level or easily flowing products
- Software with automatic pallet calculation and position determination depending on the bag/pallet format and palletising scheme

We deliver.

Complete storage, packaging and loading systems for bulk materials and liquids in a premium quality from a single source. You have one contact person and benefit from the expertise of an entire system chain.



Weighty - Our filling stations for BIG BAGS



BIG BAGS are a cost-effective alternative to conventional bags. They are available in different designs, e.g. with internal stiffeners for improved stability. However, they all have one thing in common: they should be processed fast and cleanly - goals you can easily achieve with the BEHN + BATES big bag filling station:

Your advantages:

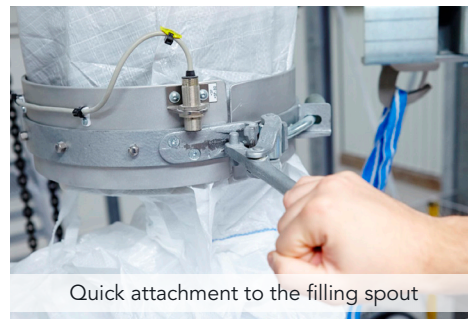
- Operator friendliness due to the swivelling rear hooks for good accessibility by operating personnel.
All four hooks open automatically after filling.
- Cleanliness due to an inflatable sleeve with a counter pressure ring, which seals the big bag during filling.
- Stable bags due to product-appropriate dosing, filling and compaction, for which we use a vibrating table.

Options:

- Magnetic grids and metal detectors with a testing device
- Automatic empty pallet feeder with cover sheet dispenser
- Automatic full pallet transport
- Palletless BIG BAG transport



Automatic sample taking



Quick attachment to the filling spout

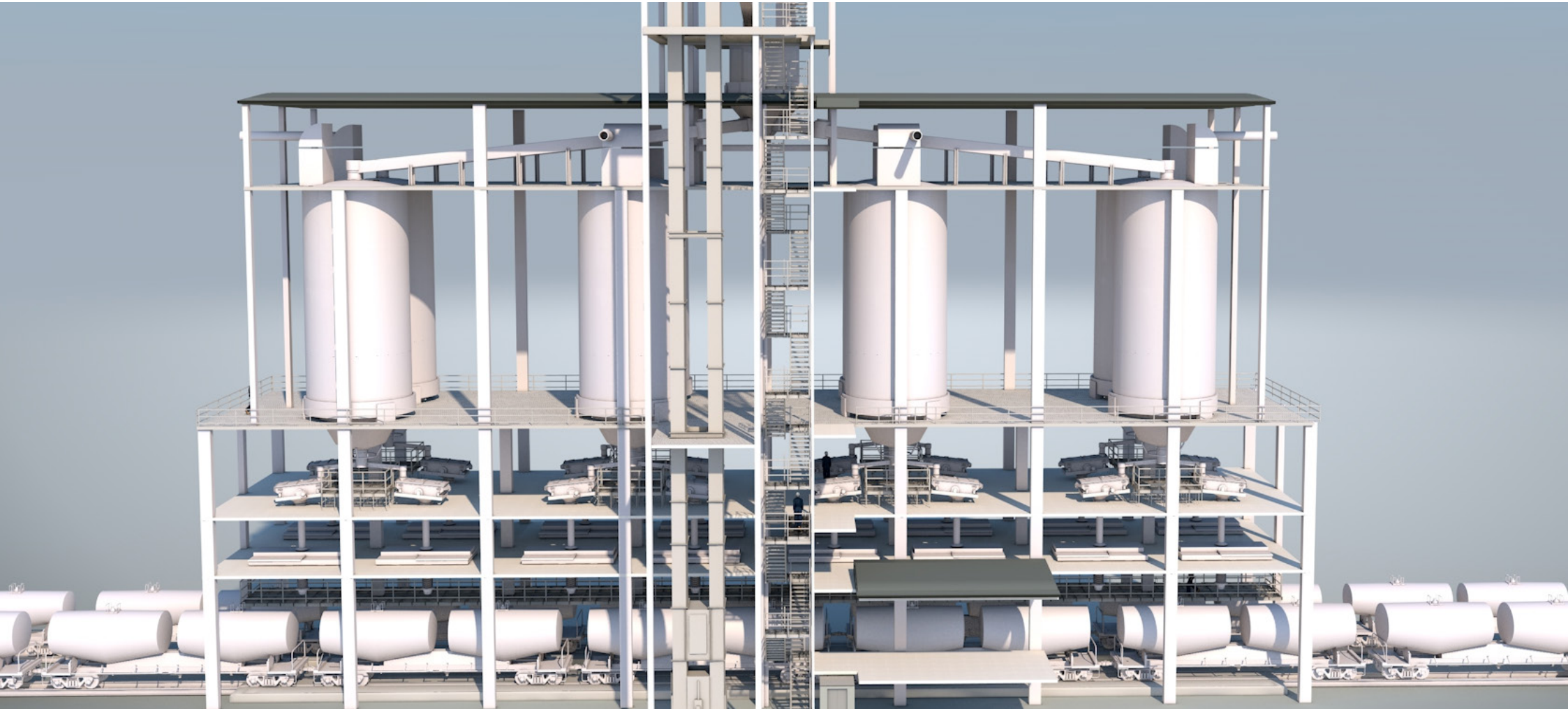


Automatically opening hooks

Machine capacity:

- 15-20 bags/h,
1000 kg each
- Fill weights from
200 kg to 1400 kg

And what else counts - Plant planning and engineering



Your packaging success is the result of comprehensive planning, carefully selected filling technology and an overall concept optimally matched to your project, which also includes the upstream and downstream system components, for example:

- Silo technology
- Filter systems
- Conveyor systems
- Ship loaders and unloaders
- Loading technology for loose products

We develop comprehensive solutions for hygienic, reliable and economical processes in food processing in close cooperation with our sister company IBAU HAMBURG. Through careful system planning and great ingenuity, our sister company always manages to design and implement convincing turnkey solutions - for a wide variety of applications on land and on water.

IBAU HAMBURG as a facility planner has only one goal: To always deliver the right, customised and high-quality process solution for your specific application. We continuously innovate and improve all processes and products. Every new idea is integrated. We make it immediately feasible for your business - and always in close cooperation with you.

Original solutions - tailor-made while taking into account modern food standards.

Holistic concept planning.

We plan your complete packaging line - from product pre-storage to the ready-for-sale full bag pallet.





PROCESSING STORAGE MIXING FILLING PACKING PALLETIZING LOADING AUTOMATION



BEHN + BATES Maschinenfabrik GmbH & Co. KG

Robert-Bosch-Straße 6
48153 Münster | Germany
Phone: +49 251 9796-0
E-mail: sales@behnates.com
www.behnates.com