

HAYER & BOECKER



DIE MASCHINENFABRIK

THE INTEGRA® ISF

REDEFINING AN ICON

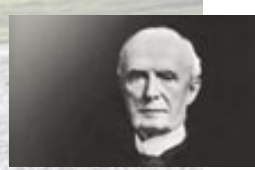


HAYER & BOECKER



CONTENT

Inspiration	4-5
Motivation	6-7
Modular	8-9
Intelligent	10-11
Profitable	12-13
Clean	14-15
Prosperous	16-17
HAYER & BOECKER	18-19

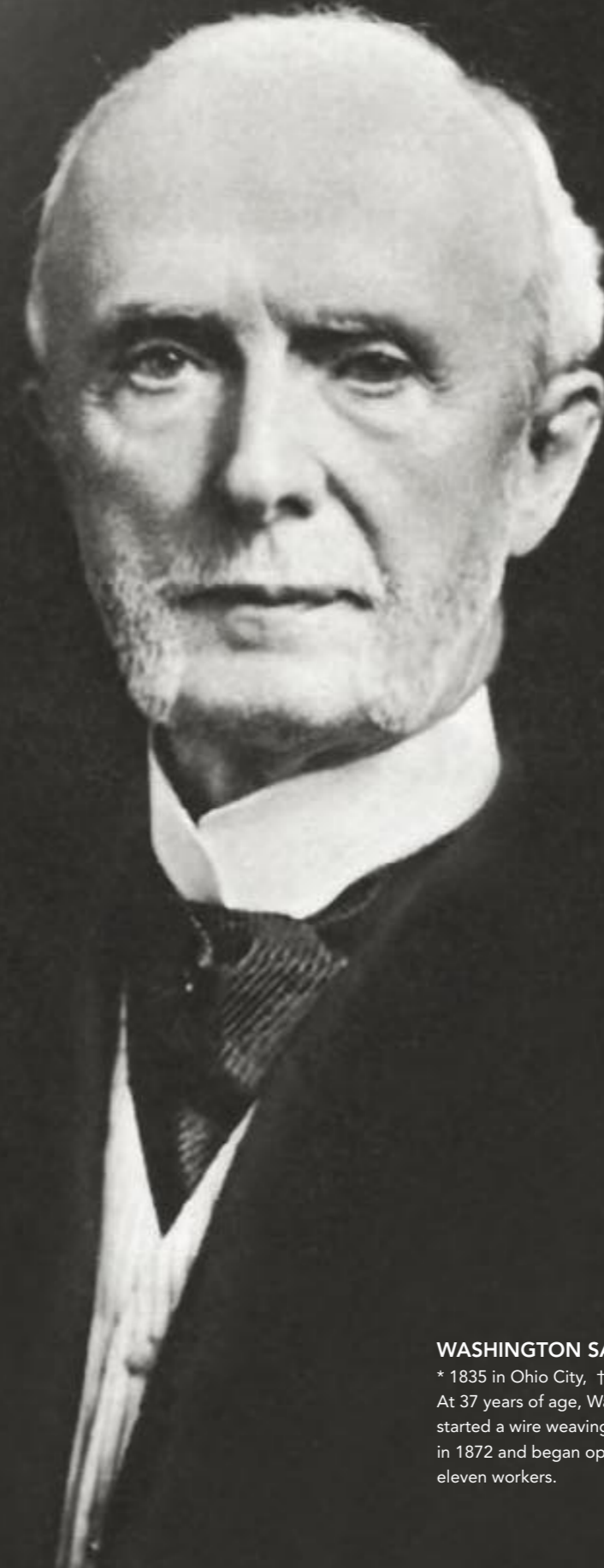


INSPIRATION

*“Our products are not an end in themselves,
but a means by which our customers can
accomplish something useful and profitable.”*

Washington Samuel Tyler

While HAVER & BOECKER was founded in 1887, our subsidiary W.S. TYLER is even older and was established in 1872. Washington Samuel Tyler captured in words the philosophy that has been the driving factor to every product we have ever designed. The foundation for the development of our INTEGRA® ISF, which stands for Integrated Packaging System for the filling of tubular film (*Schlauchfolie* in German) using **F**ree-fall technology, is the realization, that it is not an end in itself, but a tool for its owner to create something useful and profitable.



WASHINGTON SAMUEL TYLER

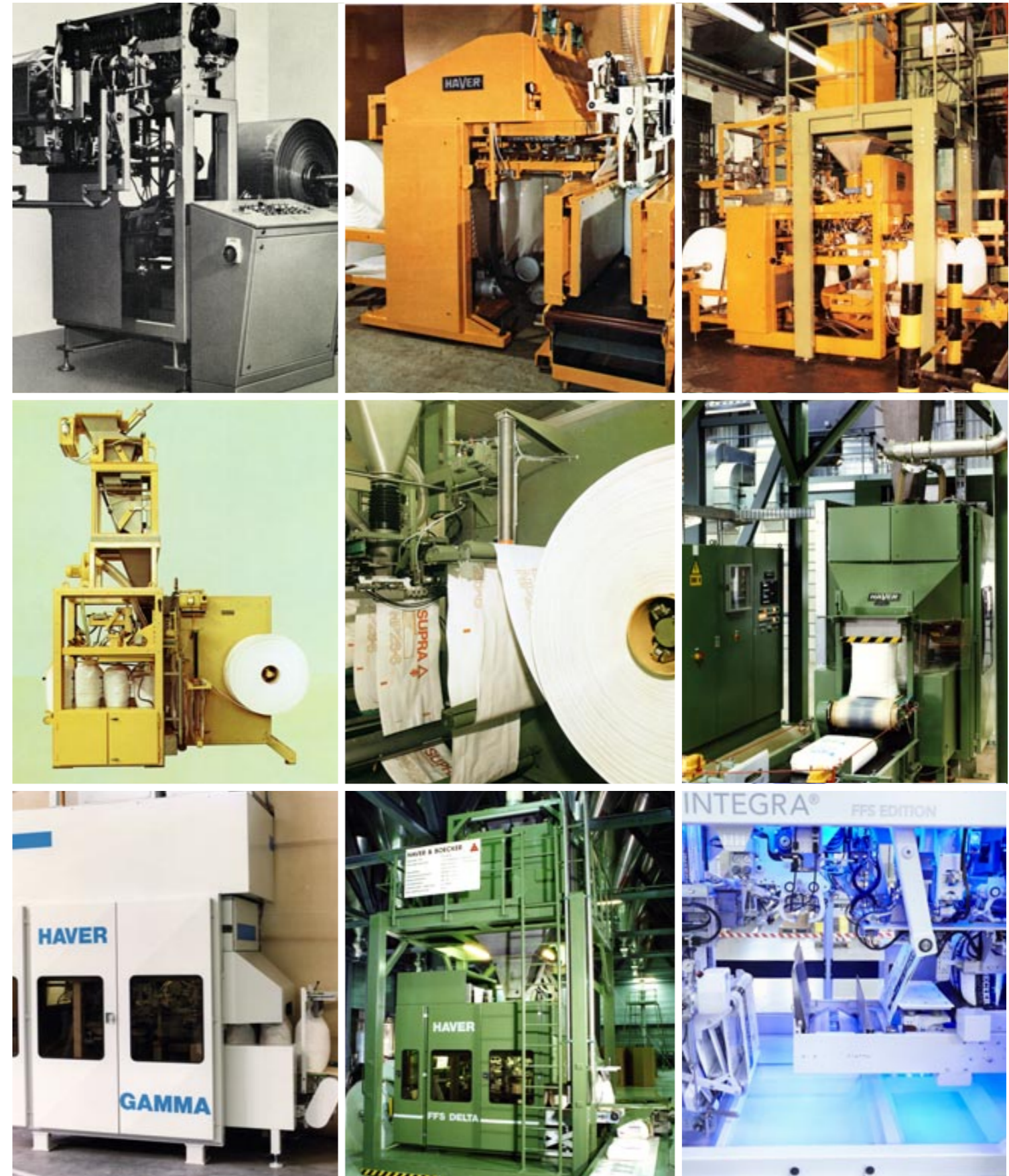
* 1835 in Ohio City, † unknown
At 37 years of age, Washington S. Tyler started a wire weaving mill in Cleveland in 1872 and began operations with eleven workers.

MOTIVATION

“The FFS machines available in the market today almost all look, feel and perform alike. In redesigning the INTEGRA® ISF, we need to do something different. We need to set us apart from the competition. We need to break barriers when it comes to cleanliness, intelligence and profitability.”

Heinz-Peter Felling, ISF Project Manager

FFS Technology has been around since the 1970's. At the time FFS was a technological revolution. However, almost all the FFS machines sold in the market today, while a bit faster and more reliable, are in general still the same machines we have come to know forty years ago. At HAVER & BOECKER we believe that needs to change. We therefore wanted to set a new technological footprint. That is why we designed the INTEGRA® ISF as the next generation FFS to reach new heights when it comes to cleanliness, intelligence and profitability.



MODULAR



“Whatever we do, we must design a machine that can be adapted to any performance requirement our customers may have. The machine must be configurable in every way that is important to the client. He should not pay for anything that he does not need, but at the same time have the option to upgrade the machine to everything he wants.”

Bernhard Pagenkemper, Chief Sales Officer

The ISF version of the INTEGRA® is designed to fulfill any and every performance requirement you may have. Similarly to an automobile you can configure your ISF in any way you want. Even if you are not sure about your performance requirements for the future, you can choose to configure your ISF in a manner that it can be upgraded at a later point in time. The INTEGRA® ISF offers various high-tech features never before seen in a FFS machine. There are no limits to the configuration of your machine. You tell us what you need and we will help you to configure you the ISF in way that is perfect for you.

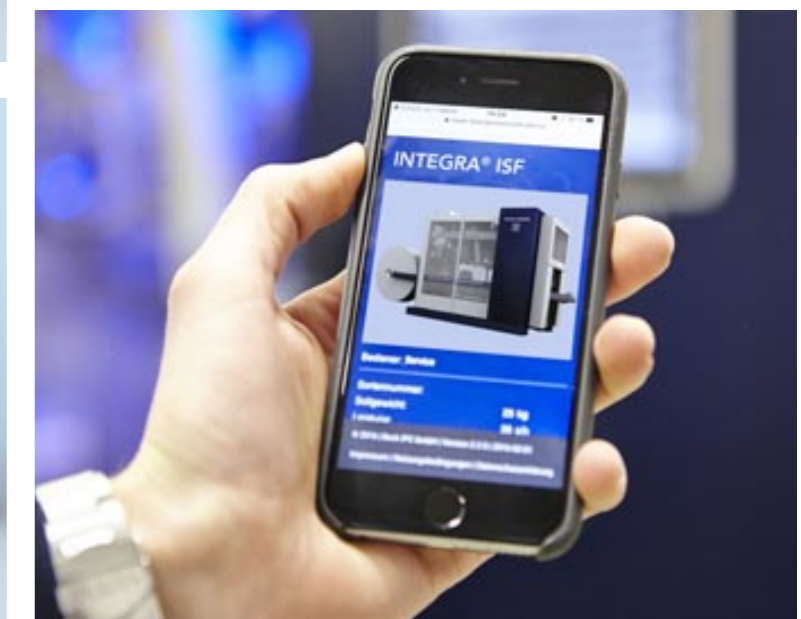
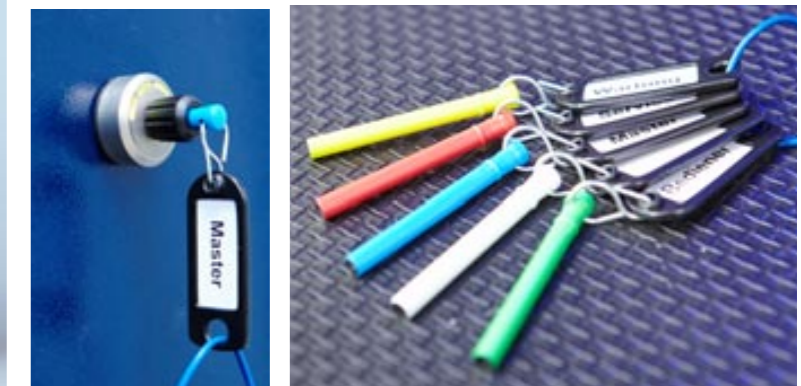
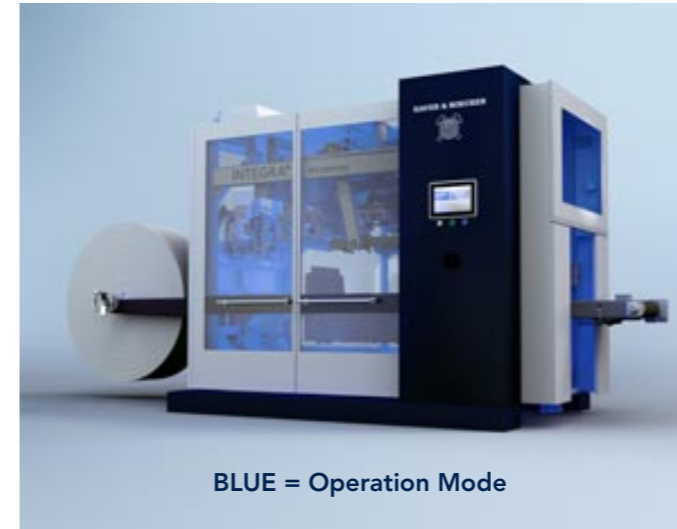


INTELLIGENT

“Build me a machine that makes it easy for us to operate. It has to be simple. It has to talk to us. It has to let us know what we should do.” – YOU

Prior to developing the INTEGRA® ISF we spoke to many of you. Your message to us was clear. You wanted a packing system, which made it easy for you and your team to operate it. You told us that the experience of your team is becoming a more and more important issue. With less time for training and a much increased rate of job rotation and added process complexity, you require a packaging system that can be operated intuitively. It should be easy to understand, quick to learn and most importantly, it must communicate with you. The ISF accomplishes the goals you gave us. Using LED mood lighting the INTEGRA® ISF talks to you. A blue light indicates it is running fine. The red light tells you it has a problem and a white light helps you in maintenance mode. The large touch-screen panel offers you all features at a click of a button. You can not only detect faults in the system, but also watch movies on how to repair them.

The system can be set to different user interfaces such as operator, maintenance or service technician. The HAVER QUATTRO technology allows you to document and to adapt the ISF's operational settings according to your team's desires. It also enables you to monitor the machine's conditions remotely.



PROFITABLE

“The key to making money in this business is time. It cannot be wasted. The process to make my product is too expensive to be sitting idle. The product must flow continuously and the process should not be interrupted.” – YOU

We understood. In reaction to your determination to generate constant flow, the INTEGRA® ISF is designed with your highest operation and maintenance comfort in mind. The machine body is protected by glass to give you a transparent insight into all aspects of the machine during operation. All components are easily accessible once you have opened the extra-large doors. Critical parts are exchangeable using snap in place solutions. For the utmost convenience you can also equip your ISF with specially designed tool boxes, which contain critical spare parts and tools directly in the machine. In order to minimize set-up times, you also have the option to an automatic reel-changer.



- 1 The secure BAG GRIPPER**
 - New low-maintenance bag gripper assures secure bag handling.
 - Especially robust with lasting grip strength.
- 2 The intelligent DIAGNOSTIC ILLUMINATION**
 - Diagnostic illumination allows recognition of the machine status from afar and reaction without delay:
 - → BLUE = the machine is in operation
 - → WHITE = inspection mode with open doors
 - → RED = indicates fault mode
- 3 The optimum ACCESSIBILITY**
 - Through large side, rear and front doors.
 - Visual process monitoring through large windows.

- 4 The automatic PERFORMANCE OPTIMIZATION**
 - Self-adaptive, the machine decides “by itself”.
 - Sensors in the material flow determine continuously and precisely the flow characteristic and thus constantly assure efficient results.
 - Using these data, the machine automatically and optimally adjusts to reach the highest possible performance.
 - No manual adjustment necessary.
- 5 The simple MAINTENANCE and CLEANING**
 - Maintenance-targeted accessibility to the different assemblies.
 - Maintenance-friendly through a collection tray.
- 6 The reliable SAFETY SWITCH**
 - Considerably enhanced machine operator safety via mechanical latching and unlatching (opening of doors during operation is no longer possible).
 - Less dust.
- 7 The interactive TOUCHPANEL**
 - Parameters in 3D images for various operating messages (use of images, text and button descriptions).
 - 15-inch display available as an option.
- 8 The personalized RFID LOG-IN**
RFID = radio frequency identification
 - Personalized log-in via a chip or stick with immediate display of the operator’s authorization level.
 - Entering or remembering a password no longer necessary.
 - Feel of responsibility and haptic experience by the operator.
- 9 The ingenious TOOLBOX**
 - For tools and spare parts.
- 10 The preventive MAINTENANCE**
 - Continuous recording of “operating data” and automatic maintenance advisory.
- 11 The modular EXPANDABILITY**
 - Modular expandability from 600 bags/hr, 800 bags/hr, 1,000 bags/hr, 1,200 bags/hr, 2,200 bags/hr and up to 2,600 bags/hr
- 12 The continuous DATA TRANSMISSION**
 - Machine with DSL connection and UMTS access as standard equipment:
 - Technical remote maintenance.
 - Recording of production data.
- 13 The reduced NOISE LEVEL**
 - Significant reduction of the noise level by an intelligent diversion of exhaust air from the cylinders
- 14 eco-line equipped to be energy-efficient**
 - Electrical energy savings from:
 - Energy-efficient motors.
 - Utilization of brake energy.
 - Reducing compressed air consumption by:
 - Using water cooling instead of compressed air cooling at the welded seams
 - Using an electric linear drive instead of a pneumatic cylinder for the cutting unit.
 - More economical on-site installation of the entire energy supply.

CLEAN

"The health and safety of our staff is our top priority. Therefore, any machine designed for today's requirements must ensure a clean working environment by minimizing product spillage." – YOU

In order to allow you to clean the INTEGRA® ISF as quickly and as thoroughly as possible, all of the main assemblies are bolted to a one piece top-plate, which can easily be removed from the machine if ever required. This means the components are not in contact with the machine floor, allowing you to sweep or wipe the machine quickly and effectively whenever you feel the need to do so. The machine floor is made up of a large drawer, which is supported by wheels. This allows you to simply remove the complete floor within seconds, giving you full access to its every corner or even allowing you to have it pressure washed, should the need arise.

To a certain degree noise is also a form of pollution. In order to protect your staff, the ISF features a specially designed air exhaust system, including mufflers. This results in the quietest FFS machine of all time.

PROSPEROUS

“My process is vital. The quality of my process determines my costs, my bottom line, my image and my overall success. Help me create a process, which is as efficient as possible.” – YOU

We understand how important your process is to you. Having a reliable, effective and efficient process radiates your image to your market, customers, competitors and even your own employees. In response to your demand we have created the **eco-line**.

Available in every new and upgradable to every existing INTEGRA® ISF, the eco-line system allows you to maximize energy efficiency. This cuts your operational expenses and sends a message to your team, customers and partners of how important the optimal management of resources is to you, while at the same time making your personal contribution to the environment. The electrical power savings stem from the use of energy-efficient motors in combination with a kinetic energy recuperation concept, similar to what you know as hybrid technology in your automobile. Pneumatic cylinders are replaced with electric linear drives. Finally, by using a water-cooled system to reduce temperatures quickly on all welds seams of your bags rather than investing into traditional compressed air, you add further savings to your energy bills.

The resulting additional profit to your operation far outweighs the extra expense of installing the eco-line system.



HAYER & BOECKER

Since the inception of business as we know it, the measurement of success for a company has always been the profit it generates. The dictionary defines profit as "the ratio of pecuniary gain compared to the amount of capital invested." At HAYER & BOECKER we believe that the key to maximizing this ratio for any company lies in perfecting the quality of its flow in terms of product and process. We are convinced that a single perfect flow applicable to any and every product or process does not exist. Instead we are driven to identify the ideal flow for each product, customer and operation. In essence, at HAYER & BOECKER we are a family of flow designers and engineers focused on finding your perfect flow. The foundation for our endeavors is our range of premium technologies, which can be combined to form complete systems of flow. From processing and materials handling over mixing, packaging and filling to palletizing, loading and automating, HAYER & BOECKER can partner with you in all aspects of your business. With W.S. TYLER, IBAU HAMBURG, SOMMER, Feige FILLING, BEHN + BATES, NEWTEC BAG PALLETIZING and of course HAYER & BOECKER itself, we have assembled over time nothing but the best and strongest brands in our industry to ensure that we will not make any compromises when designing the perfect flow for you. Maximize your success by allowing our family of flow specialists and professionals to be a part of yours.

PROCESSING STORAGE MIXING FILLING PACKING PALLETIZING LOADING AUTOMATION



HAYER & BOECKER OHG

Carl-Haver-Platz 3 · 59302 Oelde · Germany

Phone: +49 (0) 2522 30-0 · Fax: +49 (0) 2522 30-403

E-mail: haver@haverboecker.com

Internet: www.haverboecker.com

HAYER & BOECKER



DIE MASCHINENFABRIK

ELEMENTRA® AND INTEGRA®

WITH FILLING SYSTEMS FOR EVERY APPLICATION





CONTENT

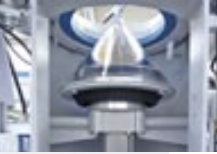
ELEMENTRA® 4-5



FILLING SYSTEMS
IMPELLER
vertical / horizontal 6-9



FILLING SYSTEM
AIR ENTRAINMENT 10-11



FURTHER FILLING
SYSTEMS 12-13



COMPONENTS 14-15



SEAL TECHNOLOGY 16-17



BAG PLACING
TECHNOLOGY 18-19



INTEGRA® 20-21



PALLETIZING
SYSTEMS 22-23





STATIONARY PACKING SYSTEM **ELEMENTRA®**

ELEMENTRA® are stationary packing machines for filling fine and coarse bulk materials into 25 to 50 kg valve bags made of paper, polyethylene or polypropylene. Also mixed and granulated products can be filled with our **ELEMENTRA®**.

Your speed requirements determine whether the HAVER ELEMENTRA® packing machine is equipped with one, two, three or four spouts. The ELEMENTRA® is available in manual, semi-automatic or fully automatic versions. That means a manual or automatic bag placing is possible. To boost productivity, it is also possible to add a HAVER & BOECKER automatic bag placer.



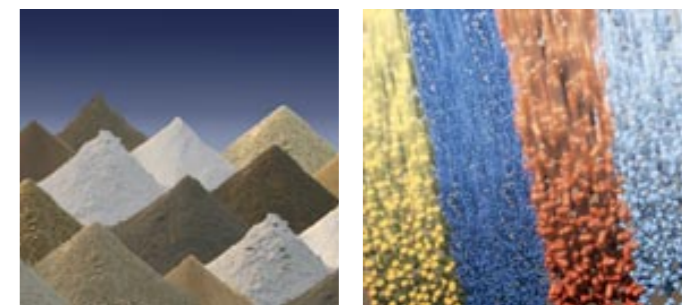
HAVER & BOECKER has optimum solutions for

- Every bulk material property
- Every commercially available valve-bag type and dimension
- All customer requirements, tailored to fulfil local requirements

Optimum concepts, analyses, tests Successful and complete system solutions are based on HAVER & BOECKER's analytical approach and its broad-based expertise and experience with:

- Continuous research and development
- Its own in-company laboratories
- Its own, self-developed test methods
- Detailed sampling for determining product flow characteristics
- Exact air permeability tests on empty bags using precision instruments
- Economically sound concepts
- Assessment and design of the paper and plastic packaging means

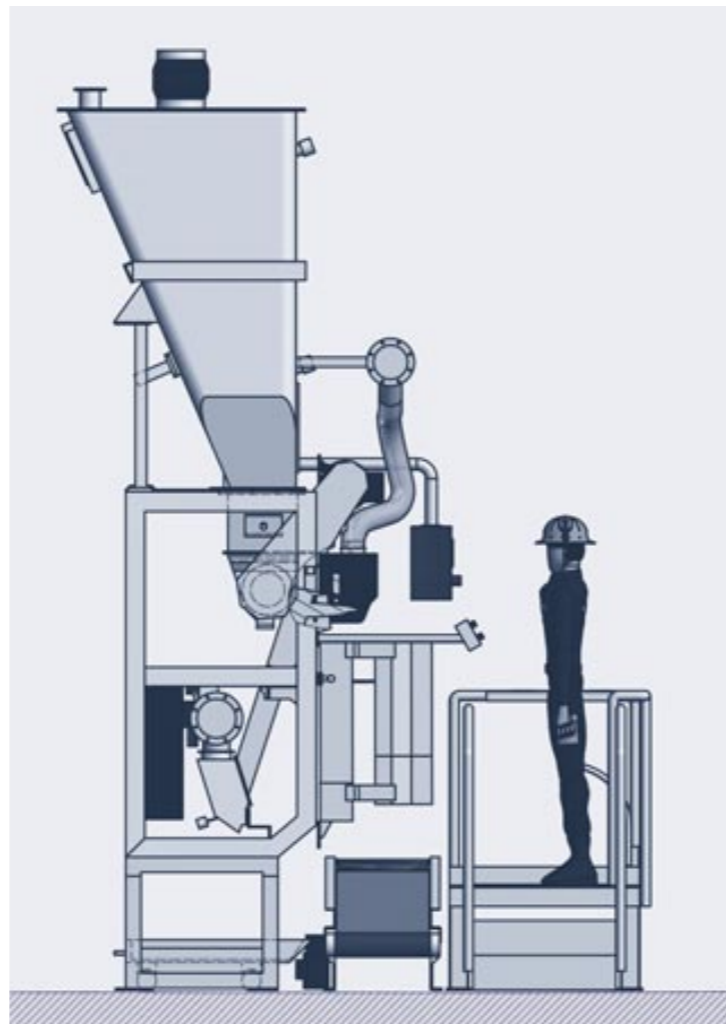
PACKAGING TRIANGLE



ELEMENTRA® for filling granulated, mixed and powder products

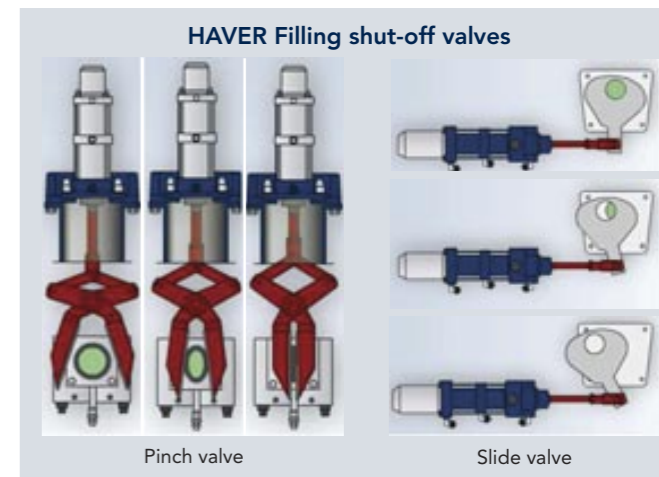
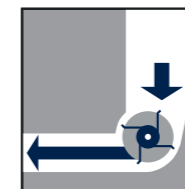
- Vertical Impeller Filling System
- Horizontal Impeller Filling System
- Air Filling Systems
- Further Filling Systems:
 - Gravity Filling Systems
 - Auger Packer
 - Pump Packer
- System Components
- HAVER & BOECKER Bag Application Technology
- INTEGRA®
- HAVER & BOECKER Palletizing Systems





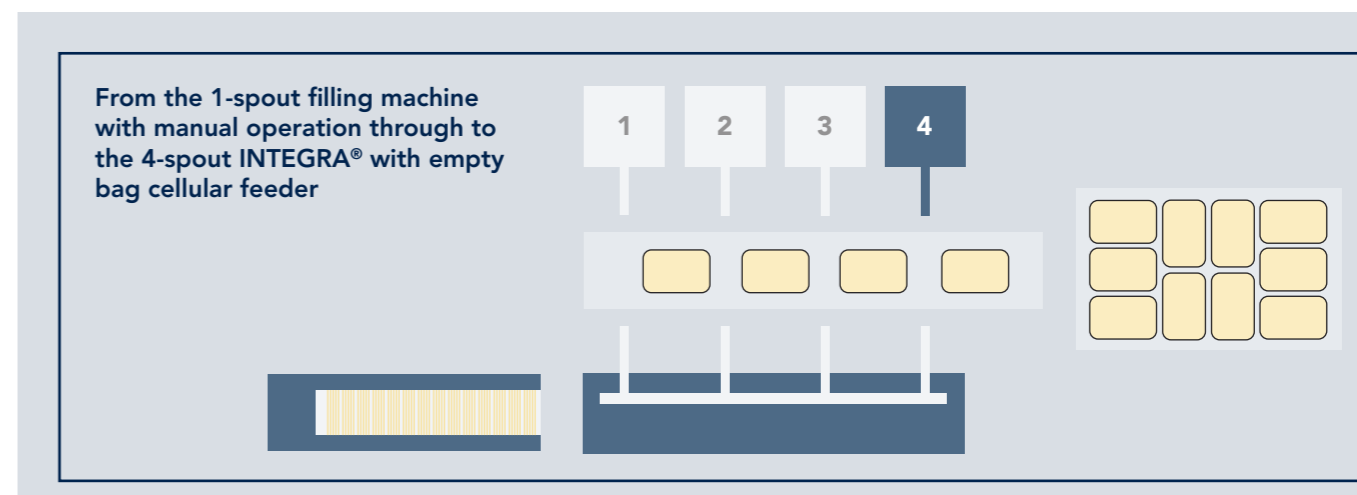
Your benefits

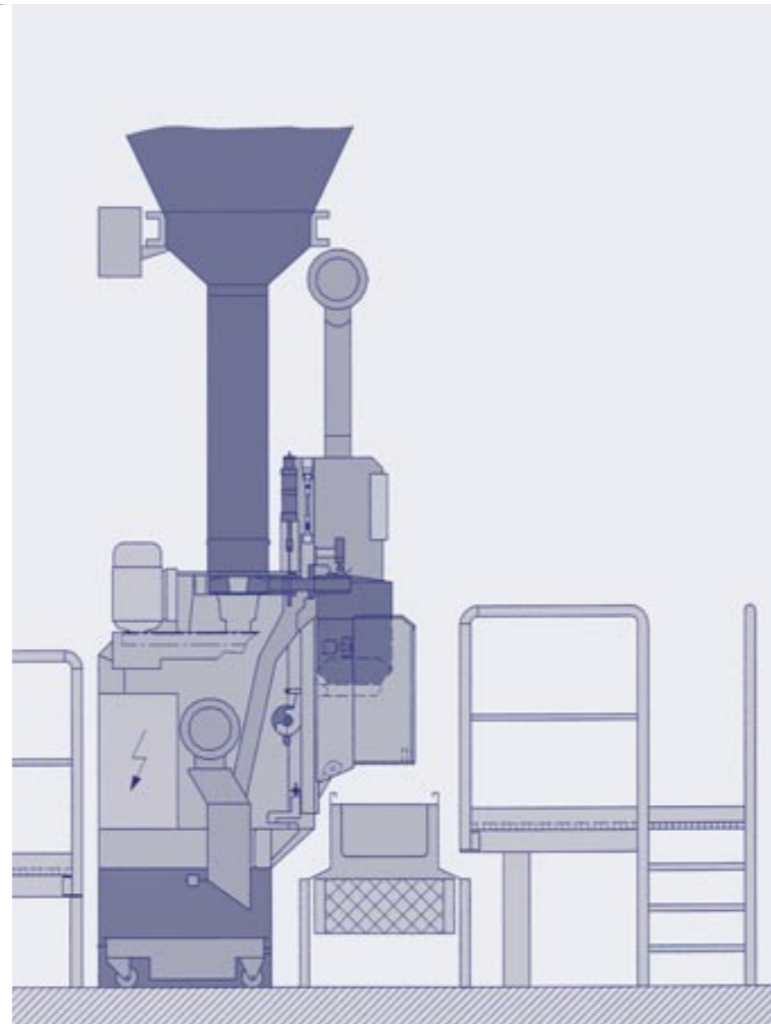
- Production rate of up to 350 bags/hr
- Precise weighing during the filling process
- High compaction levels
- Low aeration amount during filling produces high density packaging
- Minimal spillage
- Rapid emptying of the packing silo and filling machine via a second (optional) impeller outlet
- Easy accessibility for effective maintenance and cleaning
- Modern drive system design and optimally designed wear parts assure maximum operation time for a higher availability and a low-wear filling of abrasive products



HAVER & BOECKER VERTICAL IMPELLER

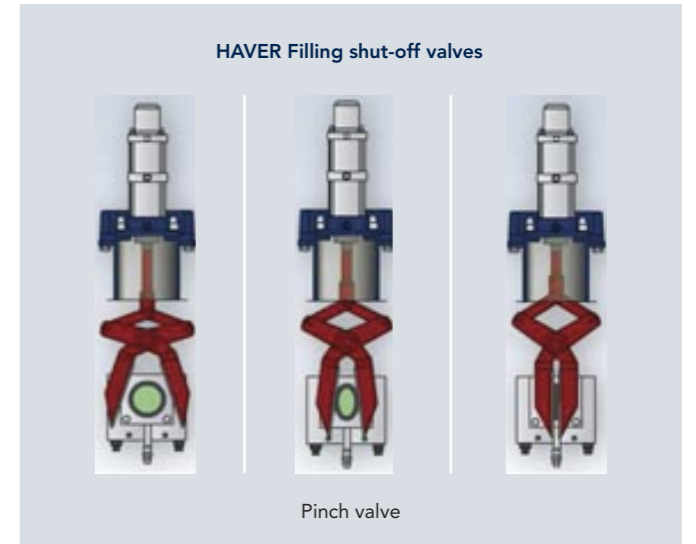
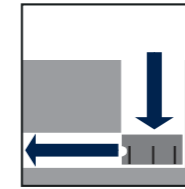
HAVER & BOECKER valve bag filling machines using the vertical impeller filling system are a highly successful technology for filling loose, powder-type bulk material into valve bags according to the gross weight system.





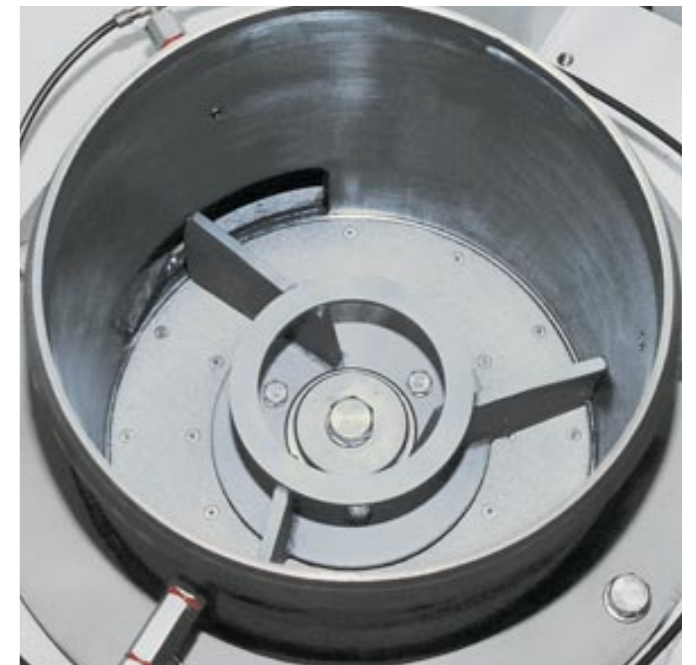
Your benefits

- Special adaptability to different materials and material flow characteristics
- Large material inlet cross section
- High filling speeds
- Continuous material feeding (no clogging, no bridging)
- High filling speeds while maintaining tight weight tolerances

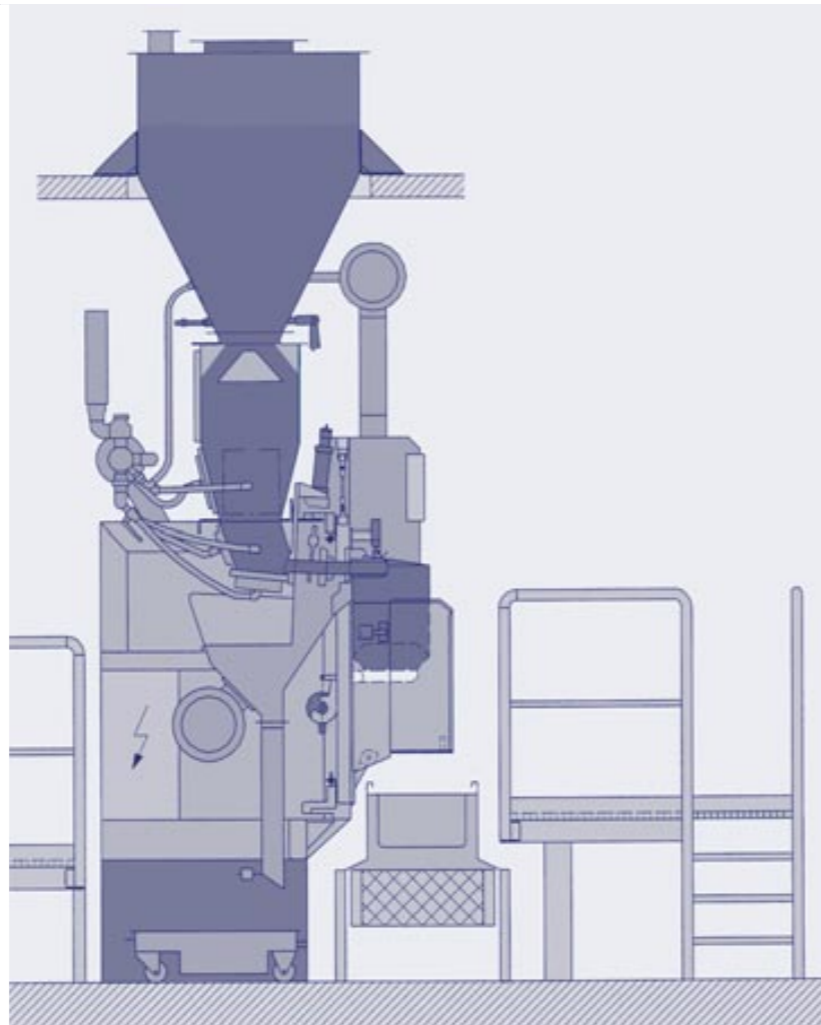


HAVER & BOECKER HORIZONTAL IMPELLER

Through continuous development, HAVER & BOECKER's horizontal impeller filling machine is designed to pack highly flow-resistant, powder-type, loose materials that are prone to clogging.



HAVER & BOECKER horizontal impeller with servo-drive



The air filling machine according to the gross weight filling system is used for filling free flowing materials as well as filling technically difficult powder-type and granular products.



The pressure chamber aeration concept provides optimum product flow with minimal air consumption. Aeration rates depend on the product characteristics and are individually adjustable.

The universal air filling system has gained wide acceptance for filling fine to granular products into valve bags.

Inline filling machines are available for manual or fully automatic operation and for integration into existing packing plants with up to four filling spouts.

Universal application for filling many products types, which vary in particle size and density, where the air flow rates can be optimally adjusted independent of each other and where the air pressure can be centrally regulated.

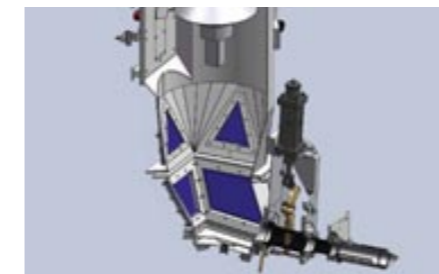
Your benefits

- Gentle product handling
- Material components do not become separated during the packing process
- Production rates of up to 400 bags/hr per filling spout
- High weight precision
- Fully aerated pressure chamber
- Homogeneous product/air mixture
- Dust minimization
- Automatic cleaning program
- Trouble-free filling of paper, PE and PP valve bags
- Operator friendly design
- Entire system requires minimal maintenance
- MEC® weighing electronics with spout control and setting options

As an option, this adjustment process may be automated via the sort selection of the HAVER & BOECKER weigher electronics.

HAVER & BOECKER AIR ENTRAINMENT

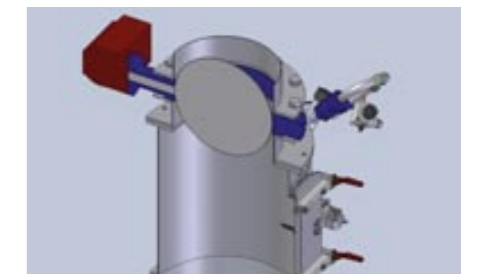
The ideal area of application is the packing of products that consist of a mixture of fine and coarse particles.



Conical valve in our universal air filling system



Conical valve in our inclined bottom air filling system



Butterfly valve



Cone from above



Fully aerated



Maintenance flap at the pressure chamber



Maintenance flap at the filling box chamber



Gravity packer / gross



Gravity packer / net

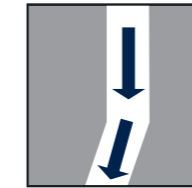


Pump packer

GRAVITY FILLING SYSTEM

The HAVER & BOECKER Gravity Packer is the all-round solution for grainy, granular and lumpy products.

The product is filled according to the gravity principle – without additional conveying air or mechanical assistance. For optimum product densification the packer can be extended to incorporate a vibrating compactor.



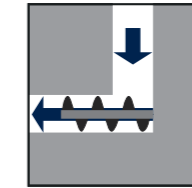
Your benefits

- Cost efficiency through the compact, low-maintenance machine design
- Ease of operation through the clear machine design
- Fully automatic ultrasonic valve sealing possible

AUGER PACKER

The HAVER & BOECKER Auger Packer is used for the compact filling of badly flowing light products.

The constant product flow into the auger housing is achieved by the continuously operating agitator positioned above the dosing auger. The rotation speed of the dosing auger is adjusted to your product and your requirements for weight-accurate coarse and fine flow product dosing.



Your benefits

- Space savings from the low machine height of only 1,560 mm
- Material savings through the compact filling of very fluidized products
- Improved product storage from the filling of tight bags

PUMP PACKER

The HAVER & BOECKER Pump Packer is appropriate for filling of products with low density.

The product transport is made by means of a double-acting diaphragm pump. Since the system is self-priming, it is often possible to do without a packing silo. This filling system can be completed by a pressing station.



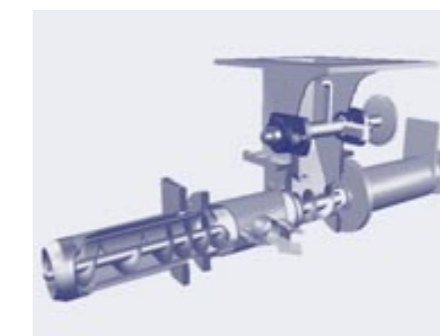
Your benefits

- Bag filling with low amount of air
- Compact bags due to an integrable pressing station for improvement of performance and shaping of the bags
- Optimal weight accuracy
- Ultrasonic valve sealing possible

FURTHER FILLING SYSTEMS GRAVITY, AUGER AND PUMP PACKER



Gravity filling system



Auger packer



Pump packer



Haver & Boecker Filling tube variants

For our different filling systems, we offer a variety of system components:

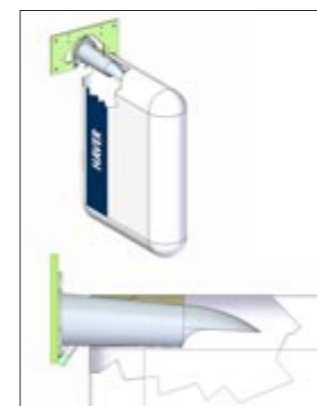
- spillage rejector
- pressure jaws
- various types of filling tubes
- various types of bag chairs



Minimal bag valve extension



Pressure jaws



Filling tube: conical design



Filling tube: with inflatable sleeve

The spillage rejecting flap

offers a big improvement in bag cleanliness. During discharge, the rejecting flap prevents the bag from becoming contaminated with product that could drip out of the filling tube. The rubber flaps are activated automatically.

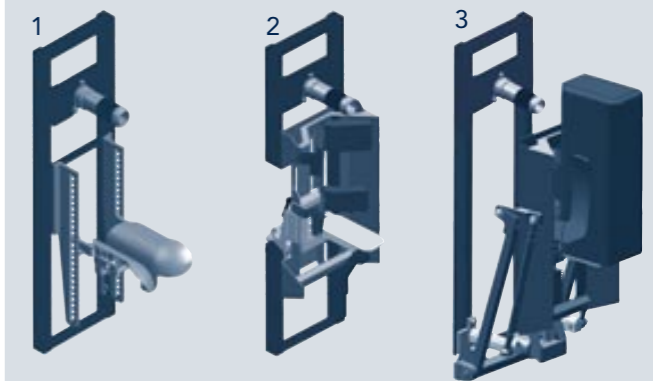


Spillage rejecting flap during filling process



Spillage rejecting flap during bag discharge

Haver & Boecker Bag Chair Variants



1 - Bag chairs for manual removal, manually height adjustable
For machines with the manual removal of filled bag, the bag chair may be adjusted to suit the length of the bag using just a few motions of the hand.

2 - Bag chairs for automatic, vertical bag discharge - manually adjustable (optionally motor-driven, continuous)
When only one bag size is used or when bag changeovers are seldom, then the tip-chair for automatic discharge may be height-adjusted using standard tools.

3 - Bag chair for automatic vertical bag discharge, motorized, continuous height adjustment via bag type pre-selection
For different bag lengths and frequent sort changes, the automatic bag chair height adjustment (through a gear reduction motor and spindle) is recommended. Adjustment is done simply by a sort selection key during product or bag changeovers.

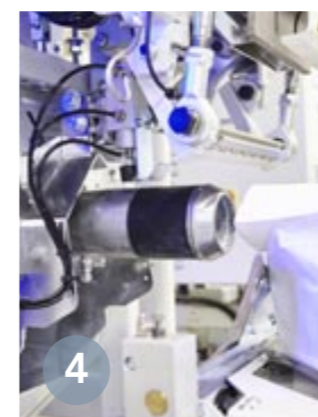


COMPACT, CLEAN AND COMPLETELY CLOSED PACKAGE **SEAL TECHNOLOGY**

All we need in the face of change and challenge is the courage to take the next step, even more so, if everybody benefits from it. The SEAL Technology is developed with one target in mind: to create a new standard when it comes to cleanliness, safety and profitability of traditional valve bag filling technology. And this is how it works:



2



5

6

7

- 1 The bag is automatically or manually placed on the filling tube.
- 2 The bag holder fixes the bag, a pneumatic sensor checks whether a bag is correctly placed, and whether it is in the correct position.
- 3 The activation of the inflatable sleeve seals the bag valve during filling, and ensures that no product escapes between the bag valve and the filling tube during the filling process.
- 4 After filling, the upright bag is pushed from the filling tube into the sealing position. This process ensures that no product escapes from the still open bag valve.
- 5 The ultrasonic sealing unit automatically moves to the bag valve.
- 6 The bag valve is closed via ultrasonic sealing by pressing the anvil against the Sonotrode, heating and closing the valve with a high frequency of 20,000 Herz. The sealing time for most common types of sacks is about 0.5 Seconds.
- 7 After the sealing process, the ultrasonic sealing unit opens, returns to the initial position and releases the bag for discharge. A new cycle can begin.

A separate valve closing unit on every filling spout

For greater cleanliness over the entire filling and subsequent transport process - until the bag reaches the consumer - we recommend equipping your ELEMENTRA® with an ultrasonic bag closing unit.





ELEMENTRA® with movable automatic bag placer - bundle system

HAYER & BOECKER BAG PLACING TECHNOLOGY

Automatic bag placers by HAYER & BOECKER for valve bags automate and enhance the packaging process.

In contrast to manual bag placing, they ensure the high efficiency of a packing machine. Empty valve bags – from a bundle or a reel – are placed mechanically onto the filling spouts of the packing machine and adapted to its speed. The placing process is consistent and reliable. The types of bags that can be used are glued valve bags made of paper, polyethylene or polypropylene. The placing technology is easily adaptable to different bag sizes.

The automatic bag placer compact by HAYER & BOECKER can be used with stationary packing machines with 1 to 4 filling spouts.

Your benefits

- Capacity of up to 900 bags/hr
- Compact design
- Low-wear drive engineering
- Easy and fast adjustment to different bag sizes and types
- Integrated bundle magazine carriage with a storage capacity of 200 to 250 bags
- If required, usage of different types of empty bag magazines



Magazine carriage



Vertical magazine



Empty bag cellular feeder

The automatic bag placer LV-Z (traversing linearly, cellular feeder) by HAYER & BOECKER is a compact and flexible, linear high-capacity placing system. It is the optimum solution for the automation of your multiple-spout inline packing plant.

Your benefits

- Capacity of up to 1,300 bags/hr
- HAYER & BOECKER valve bag placing technology, modular integrated
- High availability and maximum efficiency in all performance areas
- Universally usable with respect to bag materials and provisioning of empty bags
- Reliable processes and sensitive control systems

Your output requirement determines what kind of empty bag provisioning system will be used.

Depending on the required storage capacity and the available space, different empty bag provisioning systems can be used:

- Vertical bundle magazine (400 to 500 bags)
- Empty bag cellular feeder (450 to 550 bags, depending on its length)
- Reel magazine

The system can be quickly and flexibly adapted to different types of bags. HAYER & BOECKER automatic bag placers are of modular and compact design and require little space.

Flexible installation

Your automatic bag placer will be adapted to your local and specific conditions! This is made possible by the construction of the HAYER LV-Z according to the proven modular system. The empty bag provisioning system can be installed on the right or left side of the ELEMENTRA®. This way the filling plant can be manually operated and maintained from the front without barriers.



STATIONARY PACKING SYSTEM **INTEGRA®**

Fully automatic filling system for valve bags made of paper or PE in modular design, completely assembled and available with 1-4 spouts.

The INTEGRA® is a completely assembled filling system for loose materials inside a dust-encapsulating housing that consists of the following components:

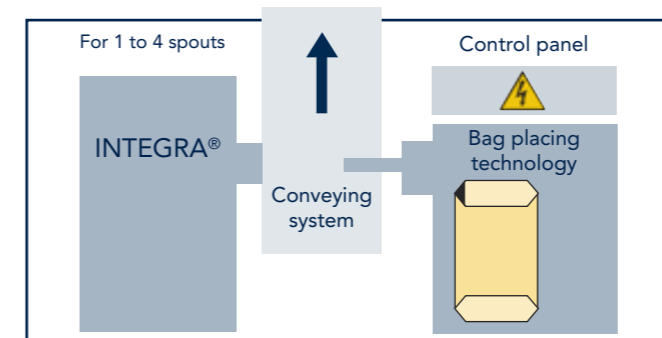
- Filling machine
- Valve sealing system
- Bag placer
- Control system
- Operating unit
- Bag discharge belt

It is a turnkey unit that is ready to operate and allows rapid on-site installation and start-up. Only the product and energy supply systems need to be at hand at the customer's as well as a final assembly for a 3-spout and a 4-spout system.

Explosion protection is a part of the technology that has to do with prevention of the occurrence of explosions and their impacts. This belongs to the field of Safety Engineering and has the purpose of preventing damage by technical products, systems, and other equipment to persons and property. Explosion protection consists of technical solutions such as ignition protection types and legal requirements such as the ATEX Directives of the European Union.



The INTEGRA® has received the European type approval from DEKRA EXAM. Qualified HAVER personnel check systems that require monitoring in the ATEX range.

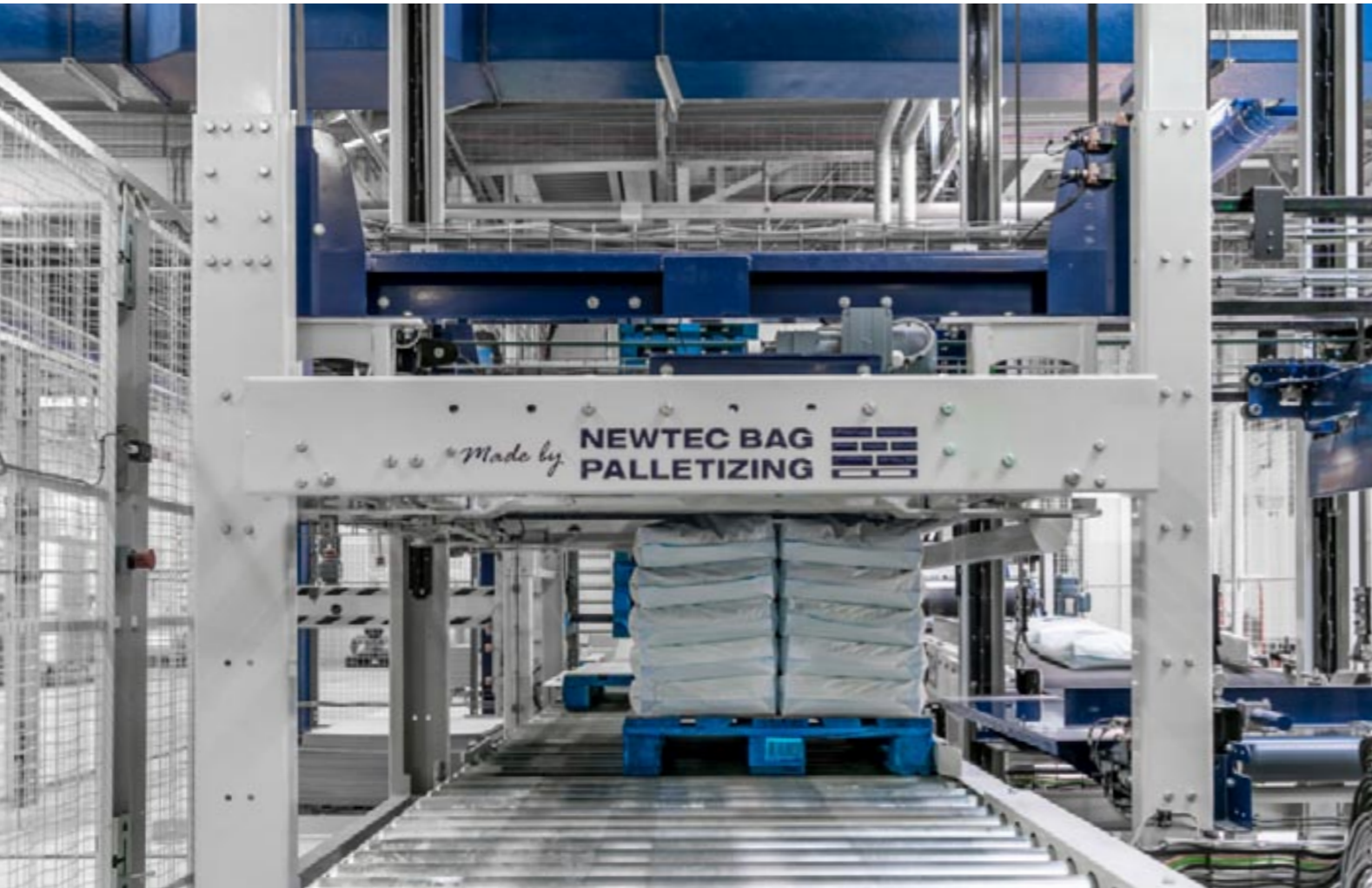


Other INTEGRA® system characteristics:

- Compactness = minimal space requirements
- Encapsulated (less noise and dust emissions)
- High operational reliability
- Easy installation and start-up, easy to reposition or move if needed
- Greatest possible flexibility, rapid changeovers to other bag types or products
- Large maintenance doors, easy access to all components
- Scratch-resistant safety glass for easy viewing
- Operating terminal
- Operator guidance in dialog (text messages) and machine setting

INTEGRA® performance overview	
Spouts	up to bags/hr to range from 10 to 50 kg
▼	▼
1	300
2	600
3	900
4	1200
depending on the product	





The palletizer - G 300 series - is designed for low capacities of up to 300 bags/hr of 5 to 50 kg.

The Automatic HAVER & BOECKER Palletizing Systems

Your bags are packed. They are tight, clean and offer optimum protection of your products. But: They have not yet arrived at your end-users' sites. Before they have to be stacked accurately and the pallets have to be packed carefully in order to:

- Protect the filled bags against damage
- Optimally use the available loading space and avoid loss of space due to irregular bag piles
- Avoid loss of time during handling and transport because of badly stacked pallets
- Prevent the pallets from tumbling due to irregular bag piles



The palletizer - 4000 series - is used in the building materials industry and is suited for capacities of 2,500 - 4,000 bags/hr.

In order to successfully implement these goals in your company we offer an extensive programme of packaging systems and palletizers in close cooperation with our subsidiary NEWTEC BAG PALLETIZING:

■ Palletizer G300

for bag palletizing by a robotic gripping arm
This palletizer is especially suitable for low-output applications of up to 300 bags/hr with bag weights of 5 up to 50 kg.

■ Palettizers - Series 500/1000/2000 to 5000

Bag palletizing row by row
These palletizers are equipped with simple, reliable and proven kinematics. The modular machine design ensures optimum palletizing results. This model is particularly designed for applications of up to 5,500 bags/hr with bag weights of 10 to 50 kg.

Together we are strong

Optimally stacked and packed pallets help you save time and money. As overall costs can thus be reduced, the profit is increased. In addition, nicely stacked pallets have an excellent advertising impact.

HAVER & BOECKER PALLETIZING SYSTEMS

made by NEWTEC BAG PALLETIZING – your products are firmly and cleanly palletized.



HAYER & BOECKER OHG

Carl-Haver-Platz 3 · 59302 Oelde · Germany

Phone: +49 (0) 2522 30-0 · Fax: +49 (0) 2522 30-403

E-mail: haver@haverboecker.com

Internet: www.haverboecker.com