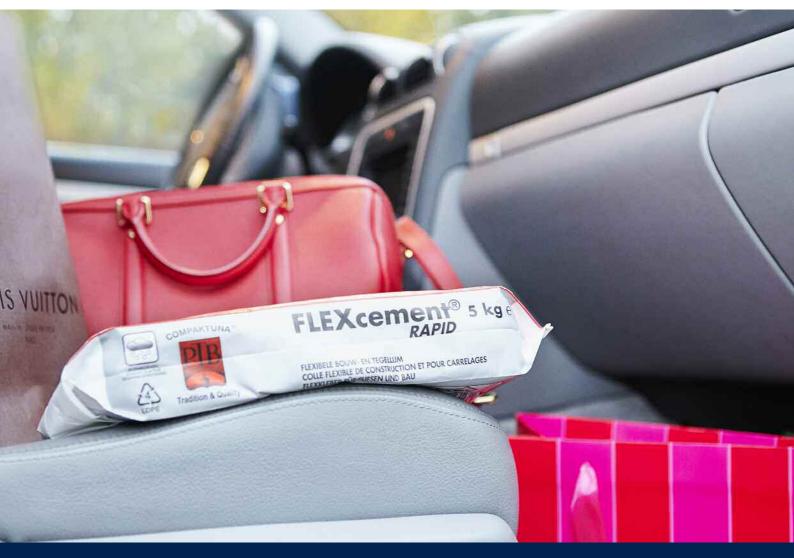


YOUR ADAMS® DIGEST

WATERPROOF. CLEAN. PROFITABLE.



HIGH PERFORMANCE FILM PACKING SYSTEM

With the HAVER & BOECKER ADAMS® technology we offer you an optimum film packing system for speeds of up to 2,000 bags/hr. With the ROTO-PACKER® mini ADAMS® Edition we have completed the range.



HAVER & BOECKER ADAMS® technology stands for the filling of powder-type products and those with difficult flow properties into watertight PE packaging.

Packing with Form-Fill-Seal machines has long been the rule for granular and grainy products. And to allow air escape, packaging material may be needled or micro-perforated. But this is not possible with powder-type products because the product's dust portion leaks out.

Product compaction inside the bag and air escape during filling are the fundamental requirements for achieving a clean and efficient packing result. The filling systems are based on the HAVER & BOECKER ADAMS® technology, and with their special technical features they are highly convincing.

Packaging spectrum

■ 1 – 50 kg

Packing speed

■ up to 2,000 bags/hr

Material variety

Powder-type, loose products also with difficult flow properties:

- Cement
- Building products
- Minerals
- Fireproof products
- Chemical products
- Food stuffs

Grain size

up to 14 mm

HAVER & BOECKER ADAMS® machines also save on film



consumption. Thanks to its efficient product compaction, smaller and more compact bags with less volume result in significant bag material savings for customers

when compared to conventional systems. These continuous savings in packaging costs signify a considerable operating cost advantage.

Product specific dosing and vibrating compaction systems (vibrating bottle; patented inner compactor)



The combined MEC® control and weighing electronics – a development of HAVER & BOECKER – ensures exact filling quantities.

Product compaction inside the bag is a fundamental requirement for achieving a clean and efficient final result. Inner and outer vibration compactors provide the required product compaction.

"The secret is the air removal from inside the product."

Reduced height – HAVER & BOECKER machines are compact.

HAVER & BOECKER ADAMS® machines are characterized by their minimal height. They are compact in design and completely enclosed. This also offers special advantages when existing machines need to be replaced.



Data-Driven Services – All systems are optionally available with the constant online data transmission of useful performance data and for remote technical maintenance.

THE SYSTEM ADVANTAGES

WATERPROOF, CLEAN, PROFITABLE.

In order to meet the market demands for greater product protection, dust-free handling and longer shelf storage times with higher resistance to weather elements, HAVER & BOECKER developed a packing system for powder-type products.



WATERPROOF - Top quality in PE bags

Tightly sealed PE bags stand for long lifetimes and a consistently high product quality for powdery products along the entire transport and storage chain.

- Less transport and storage damage thanks to robust PE packaging
- No quality loss through weather conditions, especially with hygroscopic products
- Less complaints from end customers
- Clean and safe storage inside and outside
- Reliable product protection, even if stored outside for a long time
- UV and aroma protection ensure the highest quality level

CLEAN - ... and attractively packed

At building sites, during transport or storage, on the sales floor, inside or outside – PE bags ensure dust-free surroundings, as well as a clean and attractive presentation along the entire delivery and storage chain.

- Clean surroundings along the entire delivery and storage chain
- Waterproof and tear-resistant PE bags ensure higher cleanliness
- PE bags protect the environment from contamination with dangerous products
- Dust-free production for high operator protection
- Attractive and clean design, even when stored outside
- Optimized print image with gloss effect offers new design possibilities

PROFITABLE - Highly (cost-)effective

PE bags handled with the ADAMS® technology offer cost savings in storage, transport, material and staff. Plastic bags can be presented in an appealing manner, and offer decisive competitive advantages.

- Less transport and storage volume for empty and filled bags
- Lower personnel costs for ordering procedures and equipping of machines
- Reduced dust development leads to less wear and tear
- Higher product yield, as residue is nearly fully removed from bags
- Consistent utilization of production capacity, reduced
- Significant energy savings and lower CO₂ footprint
- High market recognition value boosts image and sales

ROTO-PACKER® MINI ADAMS® EDITION

The small package filling technology for 1 to 10 kg capacity plastic film bags.



With the ROTO-PACKER® mini ADAMS® Edition, HAVER & BOECKER expands its weight spectrum so that stable PE bags of 1 to 10 kg made of flat film can be filled. Its product range also includes technology for filling into tubular film bags or into every type of pre-made film bag.

Filling weight

■ 1 – 10 kg

Speed

■ up to 1,000 bags/hr *

Filling station

■ Each 1 filling spout for coarse and fine filling

Bag sizes

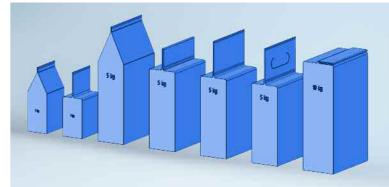
■ Width: 80 – 220 mm Length: 100 – 400 mm

* Speeds depend on the bulk density, product flow and compaction properties.

The ROTO-PACKER® mini ADAMS® Edition filling system offers you a variety of convincing advantages:

- Rapid set-ups when changing products or formats
- Upright standing packages due to high compaction
- Perfect consumer packaging
- Various head shapes are possible (see image below)
- Bags are waterproof
- High speed
- High weight accuracy
- Bags are according to standard dimensions of sales shelves
- Cost-effective packaging with flexible size adaptation and flexible bag materials
 - Flat film
 - Side gussets
 - Pre-made bags
- Easy cleaning between product changes
- Printing and marking the packaging in the machine is possible
- Low-cost packaging with flexible size adaptation
- Avoidance of spillage return, thus considerable savings
 - from reduced wear and tear = spare parts savings
 - = less maintenance costs
 - reduced cleaning





INTEGRA® ADAMS® EDITION

The stationary flexilbility for 5 – 50 kg.



The HAVER & BOECKER INTEGRA® ADAMS® Edition is a completely installed filling system. The system is a complete turnkey system, factory-approved and characterized by rapid, on-site installation and operation start-up. The system assures the greatest possible flexibility when changing over to other product types or bag formats. Moreover it is extremely space-saving.

Filling weight

= 5 - 50 kg

Speed

■ up to 1,000 bags/hr *

Filling spout

■ 1 stationary system

Bag sizes

■ Width: 210 – 400 mm Length: 300 – 1000 mm

Film thickness

- up to 200 µm
- * Speeds depend on the bulk density, product flow and compaction properties.



The **INTEGRA® ADAMS® Edition** edition is also especially ideal for filling micro-granulates into plastic bags for weights of 5 to 50 kg. Here product specific top speeds are reached.

The INTEGRA® ADAMS® Edition filling system offers you a variety of convincing advantages:

- Perfect consumer packaging
- Packages are waterproof
- High weight accuracy
- Highest compaction
- Easy cleaning between product changes
- Printing and marking the packaging in the machine is possible
- Low-cost packaging with flexible size adaptation
- Low noise level
- Intuitive operation
- "Plug & Pack" system
- Avoidance of spillage return, thus considerable savings
 - from reduced wear and tear = spare parts savings
 - = less maintenance costs
 - Reduced cleaning
- No production stoppages because of outdoor stocking capability = higher production and more sales
- Optionally available as a mobile system = more product paths

HAVER & BOECKER INTEGRA® ADAMS® Edition – Cleanliness and efficiency from production to consumption.

The **HAVER & BOECKER Service Pad**, a robust industrial tablet enables process optimization of all ADAMS® systems.

As a result the machine and plant control systems from HAVER & BOECKER are more comfortable, high performance and operator friendly.

ROTO-PACKER® 2 ADAMS® EDITION

Highest speeds when filling powder-type productss into PE bags with 2 filling spouts.



The HAVER & BOECKER ROTO-PACKER® 2 ADAMS® Edition with two filling spouts achieves the highest speeds when filling your powder-type products into PE packages.

The filling spouts sealed on all sides assure absolutely clean packages. Vibrating devices are used inside and outside and are matched according to the product properties.

Filling weight

= 5 - 50 kg

Speed

■ up to 1,200 bags/hr *

Filling spouts

■ 2 filling spouts, cycled

Bag sizes

■ Width: 210 – 400 mm Length: 300 – 1000 mm

Film thickness

- up to 200 µm
- * Speeds depend on the bulk density, product flow and compaction properties.

The ROTO-PACKER® 2 ADAMS® Edition is also especially ideal for filling micro-granulates into plastic bags for weights of 5 to 50 kg. Here product specific top speeds are reached.

This **ROTO-PACKER® 2 ADAMS® Edition** filling system offers you a variety of convincing advantages:

- Packages are water-proof
- High speed
- High weight accuracy
- Easy cleaning between product changes
- Highest compaction
- Printing and marking the bags in the machine is possible
- Low cost packaging with flexible size adjustment
- Grip handle optional with embossing
- Low noise level
- Intuitive operation
- Avoidance of spillage return, thus considerable savings
 - from reduced wear and tear = spare parts savings
 - = less maintenance costs
 - reduced cleaning
- No production stoppages because of outdoor stocking capability = higher production and more sales

HAVER & BOECKER ROTO-PACKER® 2 ADAMS® Edition – Cleanliness and efficiency from production to consumption.



Handle punc

ROTO-PACKER® 4 ADAMS® EDITION

Highest speeds when filling powder-type productss into PE bags with 4 filling spouts.



The HAVER & BOECKER ROTO-PACKER® 4 ADAMS® Edition with four filling spouts achieves maximum performance when filling your powder products into PE packages. The process of applying empty bags onto the spouts and removal of the sealed bags from the sealing unit is organized so that control over the bag is at hand at all times.

Vibrating units inside and outside are used for compaction and are matched according to the product properties.

Filling weight

■ 5 – 50 kg

Speed

■ up to 1,200 bags/hr *

Filling spouts

■ 4 filling spouts, rotationally

Bag sizes

■ Width: 210 – 400 mm Length: 300 – 1000 mm

Film thickness

- up to 200 µm
- * Speeds depend on the bulk density, product flow and compaction properties.



The **ROTO-PACKER® 4 ADAMS® Edition** is also perfectly suited for filling micro-granular products into plastic bags with bag weights of 5 to 50 kg.

The ROTO-PACKER® 4 ADAMS® Edition offers you a variety of convincing advantages:

- Packages are waterproof
- High output
- High weight accuracy
- Highest compaction
- Simple cleaning when changing the product
- Printing and marking of packages possible inside the machine
- Cost-effective packing with flexible size adjustment
- Punch handle optionally available
- Lower noise level
- Intuitive operation
- Avoidance of spillage return, thus considerable savings
 - from reduced wear and tear = spare parts savings
 - = less maintenance costs
 - reduced cleaning
- No production stoppages because of outdoor stocking capability = higher production and more sales



Pressing belt

High-performance filling system

ROTO-PACKER® 6-12 ADAMS® EDITION

The rotating high-performance system for 6 to 12 filling spouts.



The HAVER & BOECKER ROTO-PACKER® 6-12 ADAMS® Edition with up to twelve filling spouts achieves maximum performance when filling your powder products into PE packages. The process starts with placing the empty bag on the spout and ends with taking the closed bag off the sealing unit – it takes place during continuously rotating operation of the filling machine. For compaction of the powder product, inner and bottom vibrators are used and are adapted to the product characteristics.

Filling weight

= 5 - 50 kg

Speed

■ up to 2,000 bags/hr *

Filling spouts

■ 6 to 12 high-performance filling system, rotationally

Bag sizes

■ Width: 240 – 300 mm Length: 450 – 680 mm

Film thickness

- up to 200 µm
- * Speeds depend on the bulk density, product flow and compaction properties.

The ROTO-PACKER® 6-12 ADAMS® Edition is also perfectly suited for filling micro-granular products into plastic bags with bag weights of 5 to 50 kg.

The **ROTO-PACKER® 6-12 ADAMS® Edition** offers you a variety of convincing advantages:

- Packages are waterproof
- High capacity
- High weight accuracy
- Service pad available with direct works connection
- Cost-effective packing with flexible size adjustment
- Punch handle optionally available
- Lower noise level
- Intuitive operation via touch panel
- Avoidance of spillage return, thus considerable savings
 - from reduced wear and tear = spare parts savingsless maintenance costs
 - reduced cleaning
- No production stoppages because of outdoor stocking capability = higher production and more sales

HAVER & BOECKER ROTO-PACKER® 6-10 ADAMS® Edition – Cleanliness and efficiency from production to consumption.



Bag handling and bag placer



Filled bag before entering the closing station $% \left(1\right) =\left(1\right) \left(1\right)$

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FFS TECHNOLOGY LIFFS®

The HAVER & BOECKER INTEGRA® LIFFS® is a fully automatic system for filling pasty and liquid products into PE tubular film bags. It combines proven components of the HAVER FFS Technology and Feige FILLING systems.



The HAVER & BOECKER INTEGRA® LIFFS® revolutionizes the fully automatic filling of pasty and liquid products. The bag filling system is controlled via the weighing software of the filling valve. You thus achieve precise filling weights over a short filling time. After the filling process, the remaining air inside the bag is sucked off and the plastic bag is closed tightly.

The integrated design enables a fast on-site installation and commissioning. All components, from bag manufacture to bag discharge, are installed, wired and controlled within an integrated system.

Filling weight

= 5 - 50 kg

Speed

■ up to 600 bags/hr *

Filling spout

■ 1 filling spout

Bag sizes

■ Width: 240 – 420 mm Length: 300 – 1.000 mm

Film thickness

- 120 200 µm
- * Speeds depend on the bulk density, product flow and compaction properties.

HAVER & BOECKER INTEGRA® LIFFS® – for the filling of pasty and liquid products



High speed filling spout



Bag at the filling spout

The **INTEGRA® LIFFS®** offers you a variety of convincing advantages:

- Flexible packaging
- Air-tight packaging
- Cost advantage in terms of packaging material
- Lower loading volume
- Fast and complete emptying of bag by means of pressing rollers
- Significantly reduced waste disposal for the emptied bags
- High speed filling unit
- Simple cleaning when changing products
- Low noise level
- Punch handle optionally available
- Intuitive operation



PE bag – with handle on request

HAVER & BOECKER INTEGRA® LIFFS® – the economically and ecologically perfect solution – from production to consumption.

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COMPONENTS

- Gross or net weighing
- Vacuum de-aeration by vacuum lance, vibrating lance or vibrating table
- Weighing electronics MEC® with touch panel high weight accuracy
- Double or triple reel changer HAVER & BOECKER Reel Changer – product diversity and short set-up times
- The following print settings are optionally available:
 - Empty bag printing with laser (CO₂ + fiber laser), thermal transfer or labeler
 - Full bag printing with inkjet

PALLETIZING SYSTEMS

With HAVER & BOECKER palletizers made by NEWTEC BAG PALLETIZING, your products are firmly and cleanly palletized. We offer complete end-of-line solutions for palletizing thanks to its network of industrial partners in bagging and packing. As the first international offspring of the original inventor of the palletizer, we expanded our diverse line of palletizing systems to include automatic truck loading systems, railcar loading and fully flexible bag loading systems.

Our palletizing systems on a view:

- Bag palletizer for 300 up to 5,000 bags/hr
 - with layer deposit
 - with robotic gripper
 - Polyarticulated robot for bags
- Stretch hood machines for speeds of up to 120 pallets/hr
- Wrapping machines for stabilizing pallets



Weighing electronics MEC® with touch panel / Fully automatic Reel Changer Filled bag transport / Long shelf life – also outside



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