

SEAL YOUR BAG

CLEAN. SAFE. PROFITABLE.
Your system guide for
Production, Sales and Marketing



INTRODUCTION

SEAL YOUR BAG

More and more cement and building products manufacturers are making sure that their packages are compact, clean, completely closed and look great. As a reaction to this market trend HAVER & BOECKER introduced its SEAL Technology. The packing system was 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.

If you want a clean, safe and more profitable valve bag, find out more about how to SEAL Your Bag. If you have further questions, please feel free to directly contact our SEAL Technology Manager:

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www.sealyourbag.com www.haverboecker.com



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PROCESSING STORAGE MIXING FILLING PACKING PALLETIZING LOADING AUTOMATION

















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FOCUS:

Your advantages as a manufacturer of cement and building products

For your Production

- Tight, clean and compact packaging
- Dust-free work surroundings for workers produce a satisfying work atmosphere
- Clean bag filling means less production downtime from cleaning works
- Longer storage stability
- Safe transport allows for trouble-free handling
- Increased process reliability for the entire packing line
- Precisely weighed packaging

For your Sales / your Marketing

- Potential for price increases
- Boosting market share
- Strong arguments against competition with the new, higher performance packing:
 - tight
 - clean
 - compact
 - attractive
 - stable in storage
- Positive impact on the company's and product's image for customers and employees
- Attractive appearance directly at the point-of-sale makes your product stand out above the rest
- Safe transport means satisfied customers and endconsumer

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FOCUS:

Your advantages as a dealer

- Potential for price increases
- Boosting market share
- Longer storage stability
- Attractive and clean presentation
- Dust-free work surroundings for workers produce a satisfying work atmosphere

- Strong arguments against competition with the new, higher performance packing: clean – attractive – tight – compact
- Safe transport means trouble-free handling and satisfied customers and end-consumer
- Positive impact on the company's and product's image for customers and employees
- Attractive appearance directly at the point-of-sale makes your product stand out above the rest
- Less material loss and criminal extraction due to safe packaging

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FOCUS:

Your advantages as an enduser

- Less material loss due to the safe and tight packaging
- Safe transportation and clean handling
- Longer storage stability
- Positive impact on the company's image for the customer and emlpoyees

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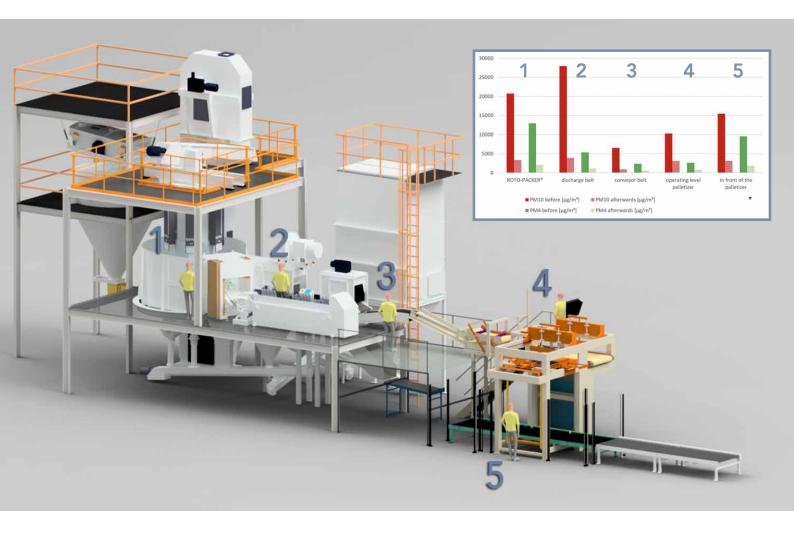


CLEAN bag

The result is an absolutely compact and clean bag which excellently and attractively presents your product and your company. The SEAL technology assures clean filling and prevents product loss across the entire supply chain: from bag discharge at the filling spout, through transport and during stocking.

From the end-consumer's point of view, the bag/ package automatically reflects on the quality of the manufacturers product and process quality, his plant and his environmental conscious. In other words, clean bags do not only reflect image of the product, but also that of the manufacturer, who produces, fills and sells it. The packaging's quality radiates the manufacturer's positive image to the market, his customers, competitors and even his own employees. This leads to considerable product marketing benefits.

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CLEAN working environment

The clean filling and SEAL package ensures a dust-free work environment, which provides a much increased standard of health & safety for your plant and most importantly for your and your customers' people.

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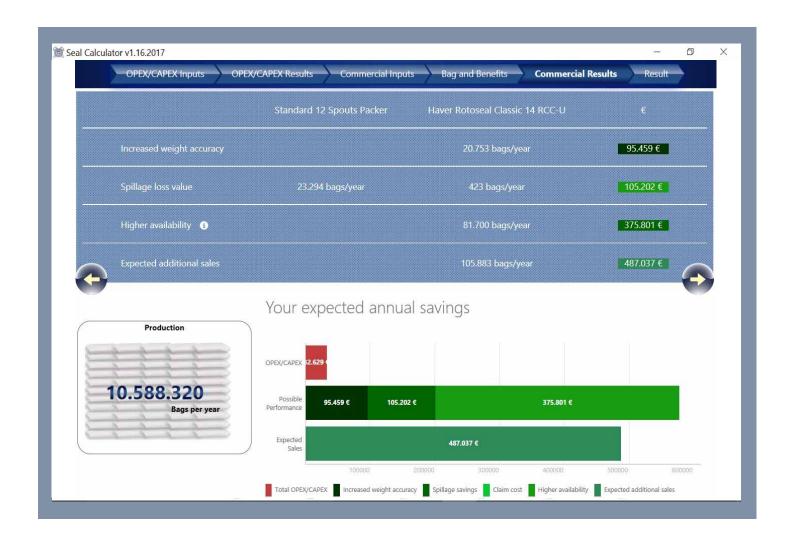
 $^{^\}star$ These are the results of a dust measurement on an existing packing line. The dust values PM10 (=10µm) and PM4 (= 4µm) were measured before without SEAL technology and after the retrofit to SEAL technology. The exact position of the individual measuring points 1 - 5 are marked on the project drawing.



SAFE

The completely sealed shut bag creates a safe package that protects the environment from possible contamination during filling, transport and storage. It also protects you and your customers' from the risk of product contamination, extraction and criminal motivated theft.

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PROFITABLE

Clean and safe packages lead to the potential of differentiation to other competitors. This in return allows you to increase the asking price of your product without losing sales, on the contrary. Clean filling leads to less wear & tear in the entire packaging plant, it's machinery and any downstream equipment. The expenses for maintenance, repairs and cleaning drop significantly and the machine availabilities are greatly increased. This results in higher, more constant capacity utilization and reduced operating costs.

The completely shut bag and associated weight accuracy prevents product loss during the entire transport without the need to overfill the bag as compensation.

The resulting additional product gains are significant. While in the past manufacturers wasted product during production, today they are able to sell close to 100% of the product, they invested so much money, energy and personnel in making. In order to calculate the exact profit gains you will achieve in using SEAL, simply ask us about your personal SEAL calculation.

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THE TECHNICAL SOLUTION:

SEAL YOUR BAG

The SEAL technology prevents material loss as an inflatable sleeve in a specially designed filling spout inflates during the filling process. After dust-free filling, the bag is carefully extracted from the spout and the specially designed bag valve is welded shut by an ultrasonic sealing system. Most manufacturers see a payback on their SEAL technology investment in less than 12 months.

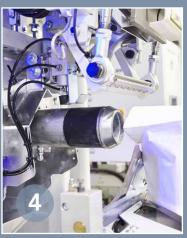
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AND THIS IS

HOW IT WORKS

- 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 Hertz. 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.

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UPGRADE YOUR

PACKING SYSTEM

If you already have a HAVER ROTO-PACKER®, INTEGRA®, ELEMENTRA® or Inline packer – great news. The SEAL technology can be retrofitted to all existing valve bag HAVER Packers procured after the year 2000. This eliminates the need to replace the entire machine and reduce your investment requirement. In order to find out how his works exactly, simply contact us and ask us about our SEAL upgrade kits.

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REFERENCES: (Selection)

"My bag is my business card." We have now installed more than 265 SEAL spouts worldwide, continuously filling cement into clean, compact and tight bags.

More references on our website: www.sealyourbag.com



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The machines and equipment shown in this brochure as well as the technical parameters represent only examples of customer-specific technical solutions. We reserve the right to make changes at any time without noticel The ® symbol indicates a registered trademark of HAVER & BOECKER oHG in Germany. Some of the trademarks are also registered in other countries.

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