PE bags will become the standard

The HAVER ADAMS® technology stands for the filling of bulk powder products with difficult flow properties into air-tight PE bags. These bags are not only clean, tightly and weatherproof; their compact size also facilitates space-saving transportation and storage and also offers several advantages for your marketing!

“The packing of powder products into PE bags is becoming the standard and is seeing an even higher degree of acceptance by the market,” looks Sebastian Südhoff, product manager at HAVER & BOECKER, into the future.

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All HAVER & BOECKER

Burkhard Reploh and Robert Brüggemann (from left)

HAVER & BOECKER OHG

Packing of powder products into PE bags will become the standard

The Haver ADAMS® technology stands for the filling of bulk powder products with difficult flow properties into air-tight PE bags. After its introduction in 2005 the technology quickly established itself on the market. With the ROTO-PACKER® for small PE bags, Haver & Boecker from Oelde, Germany has now extended its weight spectrum so that bags with a weight range from 1 to 50 kg can be filled.

Both Product Manager Robert Brüggemann and Business Unit Leader Burkhard Reploh, experts at H&B on use of the Haver ADAMS® technology in the building materials and minerals industry, look back at the history of the technology and look into the future.

ZKG: *Just a few years ago nobody would have foreseen that building products and minerals could be filled into environmentally friendly and weather-resistant PE bags. How was this development achieved?*
Robert Brüggemann: A customer approached us with the wish to fill powder into air-tight PE bags. We took up the challenge and together we developed the Haver ADAMS® technology.

ZKG: *What exactly was the real challenge?*
Burkhard Reploh: For granulated and grainy products, packing with Form-Fill-Seal systems has been common for a long time. However, very fine powder products have very high dust content. At the same time compaction of the product inside the bag is the fundamental requirement to get a clean and efficient final result. PE bags for granulate products can be needled or micro-perforated to allow air escape. This is not possible with powder-type products because the product leaks out.
Robert Brüggemann: Using the given requirements we developed a completely new bag and filling concept. To do this we solved every technical challenge individually, checked them over thoroughly and developed a compact machine on that basis. Vibrating bottles and vibrating table or bottom vibrators provide the needed compaction. Thanks to micro-vibration air bubbles automatically rise inside the product.

ZKG: *What was the reaction of the building materials and mineral industry?*
Burkhard Reploh: The first experiences we had with the Haver ADAMS® technology were in the cement sector. At first the market was somewhat sceptical because the system meant changing the entire filling process with the FFS technology. However our customers quickly recognised the advantages of filling their powder-type products into PE bags. So the ADAMS® made its mark in the building materials and minerals industry. We shipped out the first ADAMS® system for the building products sector already in 2005.

ADAMS® at the Lafarge cement plant in Cookstown, Northern Ireland

ZKG: *What advantages does the customer get from filling into PE bags?*
Burkhard Reploh: First and foremost our customers appreciate the optimum protection their products receive, more security during extended storage, the greater cleanliness throughout the logistical chain, and durable packaging. Also, from a marketing standpoint, plastic bags offer additional advantages over paper bags. Plastic bags can be printed over the entire surface and in multiple colours with photo-quality images, product information and barcodes.

ZKG: *What makes the Haver ADAMS® unique?*
Robert Brüggemann: With the ADAMS® we offer customers a high performance system with a universal spectrum of applications and product-specific dosing and compaction systems (vacuum lance; patented vibrating bottle). It is also characterised by reduced height. Our systems are very compact in size. Haver ADAMS® systems require especially little film because of the efficient compaction function and the compact bags that result. This saves costs for customers.

ZKG: *How many systems has Haver & Boecker delivered so far?*
Burkhard Reploh: So far we have delivered approximately 70 systems in over 15 countries worldwide. For us it is especially important to offer comprehensive service during the installation and start-up phase, and later for maintenance and repairs. We support the customers on-site with highly qualified service technicians.

ZKG: *In which sectors are the ADAMS® systems being used successfully today?*
Burkhard Reploh: In addition to the systems for the cement, building materials and minerals industry, we have also delivered systems for the chemical industry. Fundamentally we work also with hygroscopic powders; this is where the advantages in filling into plastic PE bags really come into play.

ZKG: *What lies ahead concerning the development of the Haver ADAMS®?*
Burkhard Reploh: Once the first system had a possible speed of up to 1200 bags per hour, it did not take long before the customer wished for even higher speeds. We optimised the technology and now, thanks to a new filling module and continuous rotating system, we offer a high performance filling system with up to twelve spouts. In doing so, we combined our experience with our ROTO-PACKER® and the expertise we had in the Form-Fill-Seal technology.
Robert Brüggemann: At the POWTECH 2014 in Nuremberg our ROTO-PACKER® for small PE bags will be making its debut. This packing machine is based on the ADAMS® technology and fills for the first time powder-type products into compact and freely stackable small PE bags. The machine reaches a speed of up to 600 bags per hour for the first step, with a design target of 1200 bags per hour, and features a stepless bag weight selection of 1–10 kg. So with this packing machine for small bags, we are extending the filling weight spectrum. Here it is possible to fill into bags made from a tubular film, or into every type of prefabricated bag. Using an additional module, our customers can form the small bags directly from a flat film inside the ROTO-PACKER® system.

ZKG: *Does Haver & Boecker offer potential customers the possibility of testing their own products and their packaging?*
Robert Brüggemann: In our R&D Center we test and analyse products for filling together with the packaging material. The technical equipment at

In the R&D Center Haver & Boecker tests and analyses products for filling together with the packaging material

this facility, which has carried out over 20000 various analyses since it was founded 60 years ago, allows us to find the most optimum solution through systematic filling trials.

Burkhard Reploh: The product analyses and filling trials are always viewed positively by our customers. They appreciate that we are not only focused on only the machine technology, but also on the packaging and all parameters that play a role in filling. This underscores our expertise and creates customer trust in reliable performance that is supported by filling-trials.

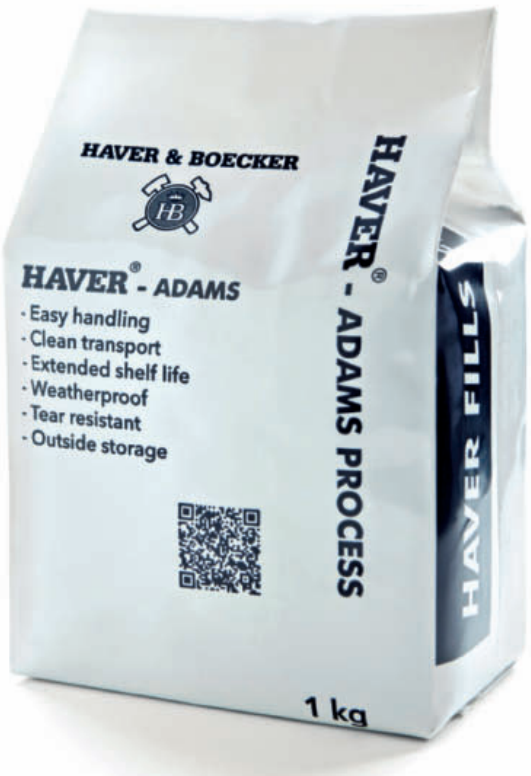
ZKG: *What about the palletizing systems Haver & Boecker offers for filled PE bags?*

Burkhard Reploh: We have made linking our premium technology to form complete systems a top priority. For two years Newtec Bag Palletizing has supplemented and enriched our well-known product line-up with their automatic palletizing systems. The Haver palletizers made by Newtec are customised to suit the requirements of the Haver ADAMS® filling systems. Our customers get complete plants from a single source. This reduces possible interfaces and leads to greater communication efficiency.

ZKG: *How do you see the future of filling and packaging in the building materials and minerals industry?*

Robert Brüggemann: The packing of powder products into PE bags is becoming the standard and is seeing an even higher degree of acceptance by the market. End-buyers are opting for products filled in PE packaging or even directly requesting it because of their attractive store shelf appearance and other clear advantages, like cleanliness and protection from weather elements.

ZKG: *Many thanks for an interesting and informative interview.*



Small bags are sealed air-tight and are impermeable to the weather