

# The Glue of the Operation

Wilden® AODD Pumps are the right choice for SABA Dinxperlo B.V.'s adhesive- and sealant-manufacturing operations

By Bernd Reitemeyer, Wilden® and Pump Solutions Group (PSG®)



*It was twenty years ago that Gerrit Klaassen, left, commercial director of Holland Air Pumps, recommended Wilden® air-operated double-diaphragm (AODD) Pumps to Henk Blom, right, SABA Dinxperlo B.V.'s manager technical service, for the company's sealant-manufacturing operation. Since then, neither Blom nor Tonny Zaarbelink, center, technical manager foam bonding at SABA, have had any reason to regret the decision to choose Wilden.*

As a high-volume manufacturer of adhesives and sealants, SABA Dinxperlo B.V. has, it goes without saying, encountered some “sticky” situations over the years. Founded in 1933 in the Dutch

municipality of Wieringen, with relocation across the country to the German border town of Dinxperlo in 1935, where its operations remain today, SABA has grown into a leading independent producer of high-quality

adhesives and sealants for industrial and building applications.

Over its eighty years of operation, SABA has been at the forefront of the industry while building a reputation as an innovator. For example, the

## About The Author

Bernd Reitemeyer is the regional manager – Western Europe for Wilden® and Pump Solutions Group (PSG®). He can be reached at [bernd.reitemeyer@psgdover.com](mailto:bernd.reitemeyer@psgdover.com). For more information on Wilden AODD pumps, visit [www.wildenpump.com](http://www.wildenpump.com). Wilden is a member of Dover Corporation's Pump Solutions Group (PSG®), which is comprised of several leading pump brands, including Abaque®, Almatec®, Blackmer®, Ebsray, Finder, Griswold™, Maag, Mouvex®, Neptune™, Quattroflow™, and Wilden®. You can find more information on PSG at [www.psgdover.com](http://www.psgdover.com).



*SABA Dinxperlo B.V. has grown into one of the world's largest independent producers of adhesives and sealants by identifying the challenges in product manufacture and handling, and choosing the technology that makes the process as safe as possible. Wilden® AODD pumps help optimize the process, from raw-material transfer to the packaging of finished end-products.*

company was the first in the world to manufacture a water-based adhesive that stuck immediately. This was quite the revelation for the foam-processing

industry and, thanks to that innovation, SABA remains a global leader in manufacturing and supplying a wide range of adhesives for the foam-

converting, mattress and furniture industries.

SABA's Business Unit Industry-Adhesives is tasked with producing and supplying adhesive systems that are used around the world in the foam-processing and PVC markets. In the end, though, SABA has used its eight decades of experience to confidently identify the challenges inherent in the adhesive- and sealant-manufacturing business and taken great pride in developing the best and safest process systems.

"SABA is proud to say that we are the top supplier of adhesive systems to the bedding and furniture market, and we are very focused on safety and quality for the industry," says Tonny Zaarbelink, technical manager foam bonding for SABA. "We produce our adhesives in the most safe way possible and transfer that safety to our customers."

#### **PRIORITIZING SAFETY**

Safety in the production process has had to be a main consideration for SABA because the raw materials that are used to make adhesives and sealants need to be handled carefully.

# CASE Studies

The typical adhesive-production chain at SABA's manufacturing facility sees the raw materials delivered by truck and then transferred into holding tanks. From there, a computerized system dictates how much of the raw material will be needed to make a specific adhesive. For example, if four tons of adhesive need to be produced,

the computer lets the system know how much of each raw material must be transferred into the mixing and blending tanks. After the new adhesive is created, it can be held in a storage tank or transferred into individual containers, 55-gallon (210-liter) barrels or 330-gallon (1250-liter) IBCs before being shipped to the end-user.



*Manufacturing adhesives and sealants requires working among hazardous raw materials. Wilden® pumps offer the operational advantages necessary to handle these substances in the safest way possible for the environment and SABA's manufacturing personnel.*

## FINDING THE RIGHT PUMP

In terms of operation, the pumps that are used to transfer both raw materials and finished products cannot leak, as this not only results in lost revenue from product waste and increased maintenance and cleanup expenses, but is also a safety hazard for plant personnel. The pumps must also offer low-shear operation as the adhesives and sealants can be damaged during their production if subjected to excessive agitation.

After experimenting with many different types of pumps through the years, including centrifugal and gear styles, and trying out numerous brands of air-operated double-diaphragm (AODD) pumps, twenty years ago SABA identified the perfect solution in AODD pumps from Wilden® Pump & Engineering.

Since 1955, Wilden, which in 2008 became a founding member of the Dover Corporation's Pump Solutions Group (PSG®) has been a premium manufacturer and supplier of AODD pumps for a wide range of industries, including those that require no-leak, low-shear product handling and the capability to be reliably used in potentially explosive manufacturing atmospheres.

Recommending the Wilden pumps to SABA was Gerrit Klaassen, commercial director of Holland Air Pumps, Oirschot, The Netherlands, a dedicated supplier of Wilden pumps in The Netherlands.

"SABA needed a pump that performed well in pumping sticky materials and they were having leakage issues with gear pumps," explains Klaassen. "We solved those problems by suggesting they use Wilden pneumatic pumps twenty years ago."

#### THE PERFECT CHOICE

"We made a good choice with these Wilden pumps, they are still going very strong," says Henk Blom, manager technical service for SABA, who was



Several of the Wilden® T8 model pumps, inset, that Henk Blom chose two decades ago are still in operation today, while newer PX pumps have helped SABA reduce its air-consumption costs.

actually the person who made the final decision to stake SABA's lot with Wilden pumps two decades ago. "It is important for water-based adhesives that these pumps have less shear than a centrifugal or a gear pump, so it's very good for us to use Wilden pumps with these kinds of materials."



The unique characteristics and requirements of the raw materials that SABA uses and the finalized products it produces also means that stainless-steel pumps with PTFE (Teflon®) diaphragms, elastomers and check balls are required. Wilden delivers that to SABA with its Original™ Series PX4 and PX8 (1.5 and 2 inches; 38 and 51 millimeters) clamped AODD pumps and Advanced™ Series PX400 and PX800 bolted AODD pumps.

For all of its operational advantages, AODD pump technology has always had to fight the battle of optimizing air usage. Wilden has made many breakthroughs in this area over the

## THE PERFECT PARTNER

While air-operated double-diaphragm (AODD) pumps from Wilden® make up the bulk of the pumps that SABA Dinxperlo B.V. uses in its adhesive-manufacturing systems, the company has found additional success with the products from another member of the Dover Corporation's Pump Solutions Group (PSG®). Almatec®, of Kamp-Lintfort, Germany, is a premium manufacturer of AODD pumps that have a solid-body design, are dry-run and self-priming capable, offer gentle product displacement, can handle solids and feature the patented PERSWING P® air control system.

Specifically, SABA utilizes several CHEMICOR Series pumps in its production processes, which have been supplied by Holland Air Pumps, an exclusive distributor of Wilden and Almatec pumping technologies in The Netherlands. CHEMICOR pumps offer a compact, solid design that feature product chambers with soft contours that result in smooth flow channels and no dead spaces in chemical-processing applications.

"We have incorporated some Almatec CHEMICOR Series pumps where appropriate into our operations and they are ideal because they produce less noise and are so easy to use," says Tonny Zaarbelink, technical manager foam bonding for SABA. "Their solid construction also makes them perfect for use in handling the specific raw materials that are required in adhesive manufacturing."

years, including the development of its innovative Pro-Flo X™ Air Distribution System (ADS), which allows the pump user to dial in the most efficient flow rate for the pumping application.

## IT NEVER STOPS

"We don't have any problems with the ADS, it never stops," Blom says. "We've turned to Pro-Flo products from Wilden to maximize our efficiency and air consumption."

In total, SABA has upwards of thirty Wilden AODD pumps in operation, including several T8 (2 inches; 51 millimeters) models that have been operating faithfully for more than twenty years.

"Over the years, we've had a lot of

different brands of air-driven pumps in the factory and we were always looking for a pump that we could use everywhere and had the special features that we needed," says Blom. "With other brands, it was hard to get Teflon membranes and we are able to do that with Wilden, and the price of the pumps is good considering the quality we get. With Holland Air Pumps, we also have a partner that can deliver all the spare parts we need, and if we need a new pump, in a few days we have a new pump because they have all of the parts in store."

Rarely, if ever, are any spare parts needed because the Wilden pumps are truly leak-free, which means that not only are costly cleanups avoided, but so are the ancillary manpower costs that go with them.

"With other types of pumps we had to clean them every week, which took 1.5 to two man-hours and with the Wilden pumps we are cleaning them every three months or so, which is a huge savings in man-hours per week," says Zaarbelink. "We also found



*CHEMICOR Series AODD Pumps from Almatec® also play a prominent role in helping SABA Dinxperlo B.V. optimize its adhesive-manufacturing operations.*

that most of the competitive pumps after a certain time will have an internal leakage that means the raw material will get into the pump's air engine. We find that with Wilden the diaphragms really stand up to aggressive materials for a really long time."

### **CONCLUSION**

SABA has recognized the potential pitfalls in manufacturing adhesives and sealants, and has worked for eighty years to remain innovative and create products that satisfy the needs of many industries, including bedding and furniture. Side-by-side with SABA for the past twenty years, Wilden's stainless-steel AODD pumps have provided the reliability and operational excellence that SABA demands.

"Twenty years ago we switched to Wilden pumps and we have stayed with them ever since," says Zaarbelink. "After twenty years we have found that they are very reliable. The ongoing maintenance costs are very low, so we are very happy with the Wilden pumps." ■