

NEWS LETTER

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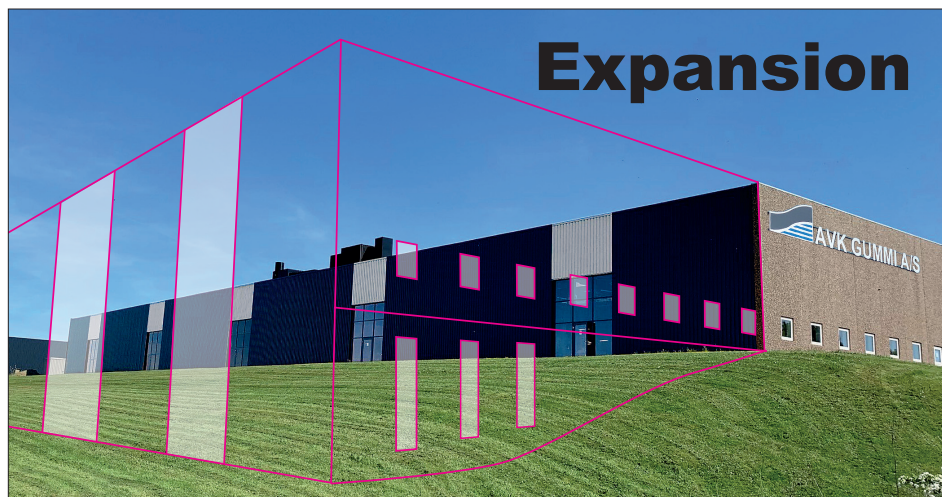
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High activity in most markets and with all customers. That is what AVK GUMMI is currently experiencing. "The recovery was first seen in China, and 3 months ago a similar change could be noticed with our customers in the rest of the world," says Anders G. Christensen, Sales and R&D Director.

Particularly within the food and healthcare segments the change has been significant. AVK GUMMI delivers critical equipment to both industries, and during the entire COVID-19 pandemic, our focus has been on keeping the wheels turning. Therefore, we are well prepared to face the challenge of the strong increase in order intake.

"During the time preceding the financial crisis in 2008, we experienced delivery problems – at the time, this was caused by an extreme increase in demand, which led to lack of machine capacity and difficulties in recruiting new employees," says Peter Lorentzen, Managing Director, and continues:

"At the moment, we are facing a similar situation; only now the primary reason for the longer delivery time is a shortage of raw materials. This is reflected by a delay in raw materials and in some cases difficulties in actually obtaining the materials. A few of our suppliers have even claimed Force Majeure. We spend a lot of time searching for remaining stock amounts or alternative raw materials. However, most of our rubber compounds are locked due to approvals especially for drinking water and food applications, meaning that we cannot use different raw materials."

Apart from the fact that there is a lack of raw materials, we also face heavy

price increases as a consequence of the high global demand. When the price increase exceeds the normal market development, unfortunately we are forced to pass on this increase to our customers. "We sincerely hope that the prices will return to a normal level again during 2021, so that we can reduce our prices correspondingly," says Anders G. Christensen.

We have also received significant freight rate increases, especially for shipments from China. The price for shipping containers has increased by 4-5 times since the beginning of 2020. We saw a small reduction in freight prices in March 2021, but now prices are rising again, which may be due to the situation in the Suez Canal. "We are following the development of freight prices closely, and we have a close dialogue with our freight forwarders," says Peter Lorentzen.

Naturally, we are happy to see such a high level of activity with our customers, which has led to an investment in further machine capacity as well as an expansion of our production with a new 2,100 m² production hall.

"Fortunately, we decided to invest in additional machines at an early stage, which means that we can more or less increase the capacity along with our customers' increase in demand," says Anders G. Christensen and adds: "Therefore, we hope and believe that we will not encounter any problems due to machine capacity."

"No doubt the situation has given us certain challenges, however nothing beyond our control," says Peter Lorentzen and concludes: "Having said this, it is very important that we stay in close dialogue with our customers concerning forecasts."

Production of rubber components in relation to EHEDG



European Hygienic Engineering and Design Group is an organisation that works out guidelines concerning hygienic design of equipment for food contact.

There is no actual legal requirement that an equipment must be EHEDG-approved, but to many customers this is an additional requirement to the equipment manufacturers. This makes good sense – especially in relation to the cleanability of the equipment.

An equipment consists of several single components – pipes, fittings, valves, pumps, etc. It is these separate parts that are tested. If as an example we take a valve, again this will consist of a number of single components, including gaskets.

This is where AVK GUMMI comes into the picture. We make it easier for you to obtain an EHEDG approval by



developing easy to clean compounds as well as to manufacture high quality rubber components.

Furthermore, our compounds must have all the relevant approvals, depending on the markets in which the product will be distributed. As a minimum, this will include Europe and with that EC1935:2004.

The most important guidelines:

Guideline 2 – A method for assessing the in-place cleanability of food processing equipment

This is a method describing how to measure the cleanliness of the equipment after the cleaning process. The degree of cleanliness is assessed in accordance with a standardised soiling and cleaning process.

Guideline 8 – Hygienic design principles

Essential elements here are product contact surfaces, classification of hygienic equipment and material requirements.

Guideline 48 – Elastomeric seals (Draft)

This document is still under preparation. The guideline concerns advice and counselling in connection with the design of gaskets as well as a catalogue of typical failures.

How can we procure the right rubber component that will help you obtain an approval of your equipment

There is a wide range of EHEDG guidelines. Depending on the type of equipment, you need to identify the guidelines that are most relevant for your product. Based on our experience, we can help you identify the guidelines that are relevant to the rubber component.

We help you design and test your equipment

During the design phase of your equipment, we can give you advice concerning the design of the gasket, e.g. in relation to surfaces, edges, marking, etc. – all of which are critical aspects in relation to the cleanability and with that the approval of the equipment. Once we have determined the design, we will have a tool manufactured that will live up to the many requirements.

The next step is to identify the EHEDG test centre to carry out the tests.. All the test centres use the same guidelines, but the test capacity, delivery time and price may vary.

Prior to the full EHEDG equipment test, the rubber component itself will be examined as the actual test is rather costly. After a satisfying microscopy verification, an acid test and an assessment of microbial potential, the full test is initiated. The purpose of the acid test is to ensure that the acid potential of the compound will not bias the test result.

If your equipment is to be used for many different purposes, it will often be necessary to use different gasket materials. If this is the case, the equipment must be approved with all the different rubber types. After approval of your equipment, the approval must be maintained. The certificate must be renewed every year, and the equipment must be tested every five years.

AVK GUMMI is a member of EHEDG and 3-A Sanitary Standards

AVK GUMMI A/S has been an EHEDG member since 2009. We have participated in working out guidelines, given presentations and carried out training of engineers. The same is the case for 3-A Sanitary Standards, the American equivalent of EHEDG.

FACTS:

EHEDG is a consortium of equipment manufacturers, food industries, research institutes and public health authorities. Furthermore are consultants specialising in the food industry.

EHEDG was established in 1989 with the aim to promote hygiene during the processing of food products, among others by working out guidelines concerning hygienic design of equipment for food contact. The guidelines are worked out by experts from the companies that are a member of EHEDG, thus combining theory and practice.

AVK GUMMI and subsidiary companies

With a strong presence in Europe, China and the US, AVK GUMMI and our subsidiaries support your business with manufacturing and sales support.

AVK Sealing Technology in Kunshan, China, was established in 2004 and has continued to expand since then. The manufacturing technology and facilities are to the same standard as at AVK GUMMI, and the company has been certified in accordance with ISO 9001, ISO 14001 and ISO 45001 since 2011. From the start, the scope has been to manufacture high quality products for demanding applications. Therefore, the QHES management from Denmark has carried out audits at AVK Sealing Technology on a regular basis. This procedure has of course continued along with BVQI third party audits.

A very important driver for our success in China is the high loyalty of our management. Terry Wu, General Manager of AVK Sealing Technology since the foundation, has a strong background within process equipment for the food industry and a degree in mechanical engineering. "Terry and his team are doing a great job, not least after Covid-19 where the Chinese market has recovered very fast," says Peter Lorentzen, Managing Director at AVK GUMMI.

In January 2019, AVK GUMMI acquired Ravestein Rubberparts BV., now AVK Ravestein BV. in order to enhance growth as well as our presence in the Netherlands and Benelux. AVK Ravestein is a lean company with a versatile machine setup. The main focus is on technical products.



*Terry Wu, General Manager
AVK Sealing Technology*

With a degree in Economics and many years of experience, Arno Kolijn was appointed Managing Director of AVK Ravestein. "My focal point is to achieve profitable growth for AVK Ravestein and at the same time provide new business for AVK GUMMI," says Arno Kolijn.

In order to strengthen our position in the US market, AVK GUMMI established AVK Elastomer Technology last year and appointed Ted O'Connor as Sales Manager. Ted O'Connor is located in Richmond, Virginia, but is serving current and new customers across all states.

Ted O'Connor has a Mechanical Engineering degree and his work experience ranges from engineering design work on hydraulic actuators and valves through application engineering for a company that manufactures mechanical seals, Product Manager for a manufacturer of hydraulic motors to Industrial Sales Engineer with sales of pumps, seals, filtration systems and industrial equipment.

"Luckily, I managed to spend some time in Denmark before Covid-19 stopped all travelling activities," says Ted O'Connor and continues: "During my time at AVK GUMMI, I was given a thorough introduction to AVK GUMMI and the product portfolio, including training in rubber technology. This has given me a sound basis for providing US customers with competent advice concerning the choice of material and design solutions. Furthermore, I take pride in providing excellent customer service and developing strong relationships."



*Arno Kolijn, Managing Director
AVK Ravestein BV*

"We are grateful to have Ted on board on our exciting journey in growing business in the US," says Anders G. Christensen, Sales- and R&D Director at AVK GUMMI, and continues: "We expect to grow a strong position – not least in the food, tech and energy segments."

With the establishment of AVK Ravestein and AVK Elastomer Technology, AVK GUMMI has once again strengthened its competitive position as one of the world's leading companies in the production of rubber gaskets for the drinking water sector, the food industry, the energy sector, the healthcare industry and the technical and chemical industries.

The rubber compounds used for production at AVK Sealing Technology in China and AVK Ravestein in the Netherlands are produced in our Danish mixing plant and transported in climate controlled containers ensuring that the unique properties and the durability of the rubber is maintained. To start with, products for customers in the US will be produced at AVK GUMMI in Denmark.

Naturally, all three subsidiaries follow the same CSR regulations as AVK GUMMI, which means that quality, environment, occupational health and safety matters are always given top priority. Therefore, all objectives concerning complaints, accident frequency and handling of scrap are equally important. The fact that the actual level is even higher only confirms that the organisation has a well-established system.



*Ted O'Connor, Sales Manager
AVK Elastomer Technology Inc.*

Automated sliding shoe assembly in the wedge production

Throughout the past many years, AVK GUMMI has implemented automation solutions where this could lead to an improved working environment, or where the type of product and production quantity has justified this.

Our most recent initiative is a comprehensive project where the process of assembling sliding shoes onto AVK valve cores has been automated. The purpose of the shoes is to reduce friction when opening and closing the valve. Until now, the operator has mounted the two plastic shoes just before the moulding process, which has involved manual lifting and time-consuming specialised operations.

We started out by mapping the process in detail and identifying the requirements concerning the positioning of the shoes. After that, we designed an equipment that could handle 7 different types of shoes as well as 9 different types of cores without having to have any manual steps during the process.

After the operator has entered the order for the valve core into the computer, the reprogramming is fully automated. All the operator has to do is to refill a container with plastic shoes.

The flow in the robot cell is as follows: First, the shoes are transported from a container to a conveyor belt underneath a camera. Here, the grip position is determined after which the

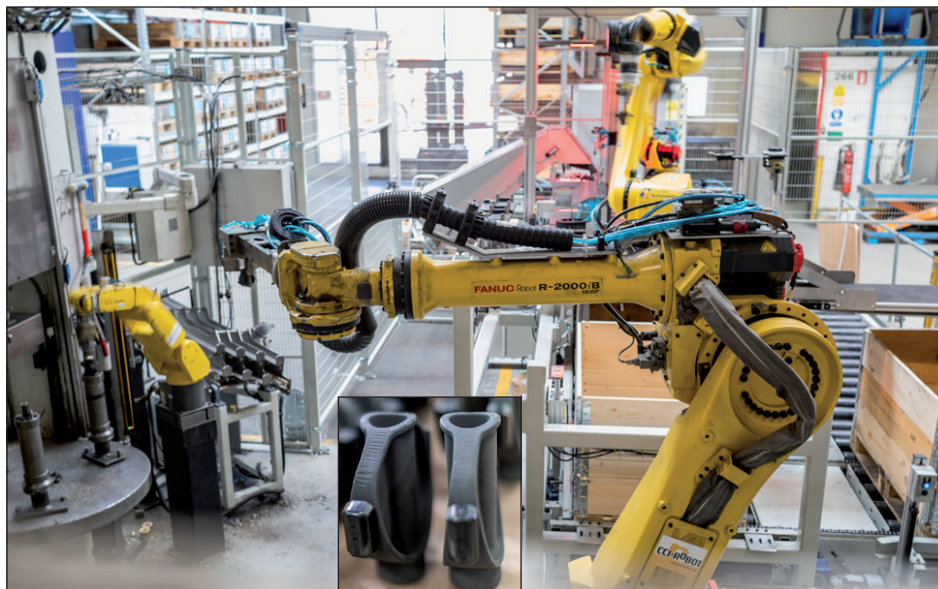
robot picks and mounts the shoes in the feeder. Another robot then picks the correct valve core from a rack, places the valve core in the feeder for mounting of shoes. Finally, the valve core is delivered to a pallet for downstream processing.

We have worked on many different possible solutions, made drawings, 3D prints and simulations, tested the different solutions and discussed the project with our operators – all of which has helped to find the best solutions in each corner of the robot cell.

"The robot cluster was installed and tested with one of our suppliers. Even though we had prepared everything thoroughly, we were quite excited to see how the setup would interact with the existing robots that presses brass nuts into the valve core," says Kresten Krogh, Production Manager, and adds:

"It has been an extremely complicated project, totally dependent on internal resources. The teamwork between our production and technical department has been very positive – and of decisive importance for the result."

With the automated wedge production, once again we have optimised the working environment in the production and at the same time minimised the risk of errors. "It is important that we keep looking for new areas in which automation solutions may contribute to increased efficiency and reduce monotonous, repeated work," concludes Kresten Krogh.



NEWS

New Sales Manager



As of 1 September 2020, Arnth Henriksen joined AVK GUMMI as Sales Manager in order to further strengthen and develop our sales organisation. Arnth Henriksen has a degree as Export Technician, a Graduate Diploma in Business Administration and a Pre MBA.

Arnth Henriksen has a long career in the food industry, among others with Danish Crown and Atria, and he has been based in the US, Germany and Hong Kong.

Arnth Henriksen thus has a sound knowledge of the industry and is already in a constructive dialogue with existing as well as potential customers.

We welcome Arnth Henriksen at AVK GUMMI.

Visit our new website
www.avkgummi.com

NEWSLETTER

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