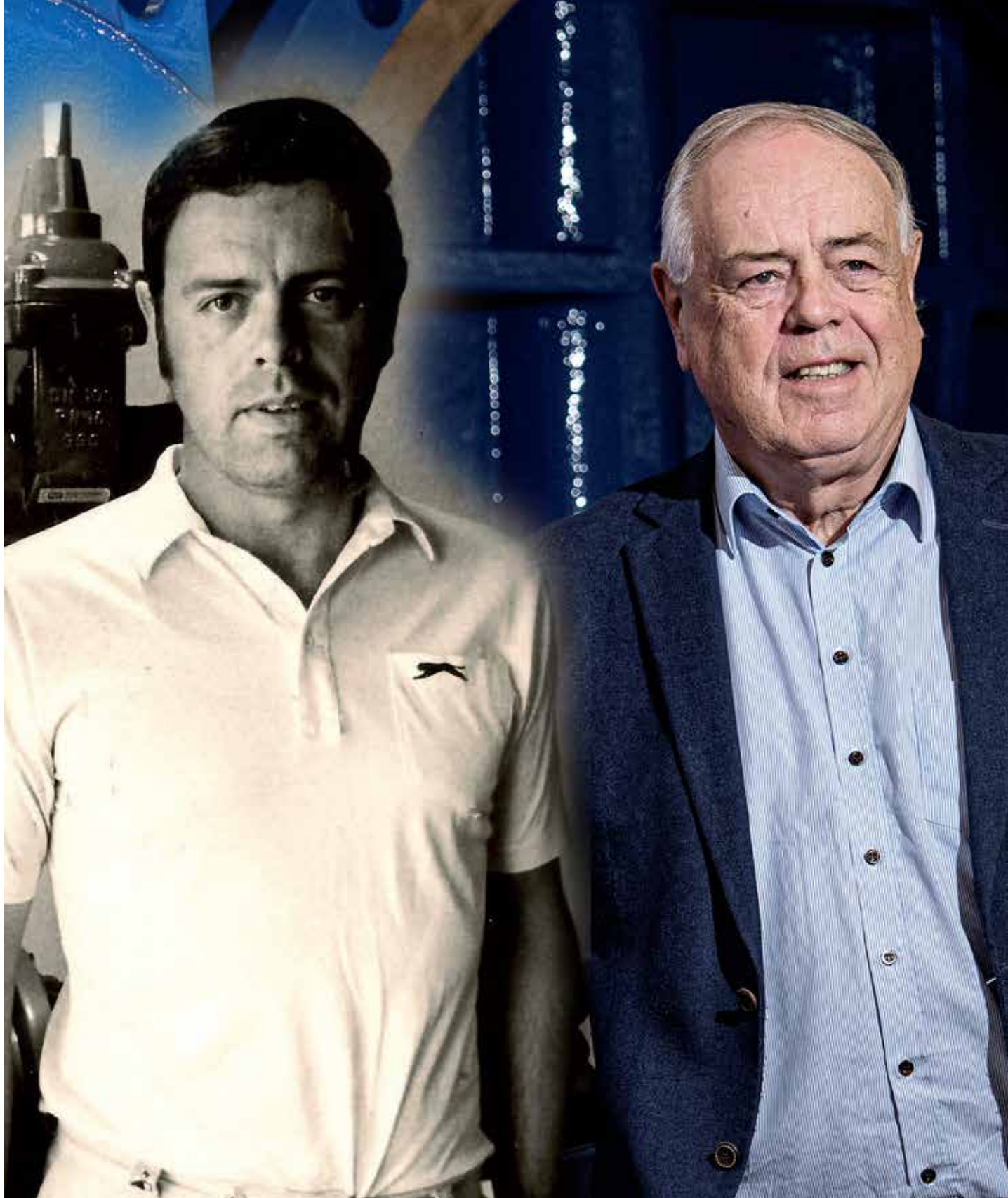




**EXPECT
STORIES FROM
THE AVK WORLD**

Expect... **AVK**

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Frontpage picture

Includes images of our founder & CEO, Niels Aage Kjær, in the 70's and now; half a century and an entire Group later.

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DEAR READER

Even though we have heard enough about Corona and really just want to move on and get back to life as we know it, I have to bring up this global occurrence which has turned our lives upside-down and has put other subjects in focus than the ones we usually deal with. The Corona crisis has of course made public health and ways of protecting ourselves the number-one topic on the agenda. Yet again, we are reminded of the importance of water to people's health. Keep your distance and wash your hands often. But what good is soap without water? How do you keep your distance if you're living with thousands of others in a cramped space in camps or slum districts and water is only available from a small dripping tap where people crowd? On the other hand, water can kill. More than two million people die every year from waterborne diseases or because of inadequate or complete lack of sanitation.

This spring, several large Danish water companies have published their annual report. These make for an interesting read, and even in a country like Denmark which we ourselves consider quite organised, there's room for improvement. "We want to supply healthy water to people and to Nature", one of these reports states. Imagine if all water companies felt that way? One report

used this image to demonstrate what it is all about:

All communities borrow water from nature and all communities should return this water in a cleaned and healthy state. All communities should be safeguarded against climate change, and water is usually an early warning that something is changing. Either monster rain that makes sewers overflow, leading to massive pollution at the expense of both people and Nature, or droughts that dry up lakes and streams and force people to move to other areas.

While the Corona crisis has made health the main topic, attention has also been drawn to ways of maintaining control and keeping an overview of an infrastructure as critical as water and wastewater. In many places, emergency crews and 24-hour staffing have been put in place to make sure nothing goes wrong. The answer to this challenge is automation. When employees of the water supply must be protected from contagion, must keep their distance, must no longer work closely together or sit next to each other in a control facility, these employees must still be able to perform their duties and surveil and control the facilities. Mobile units like tablets or smart phones are the obvious solution for supplying the necessary information.

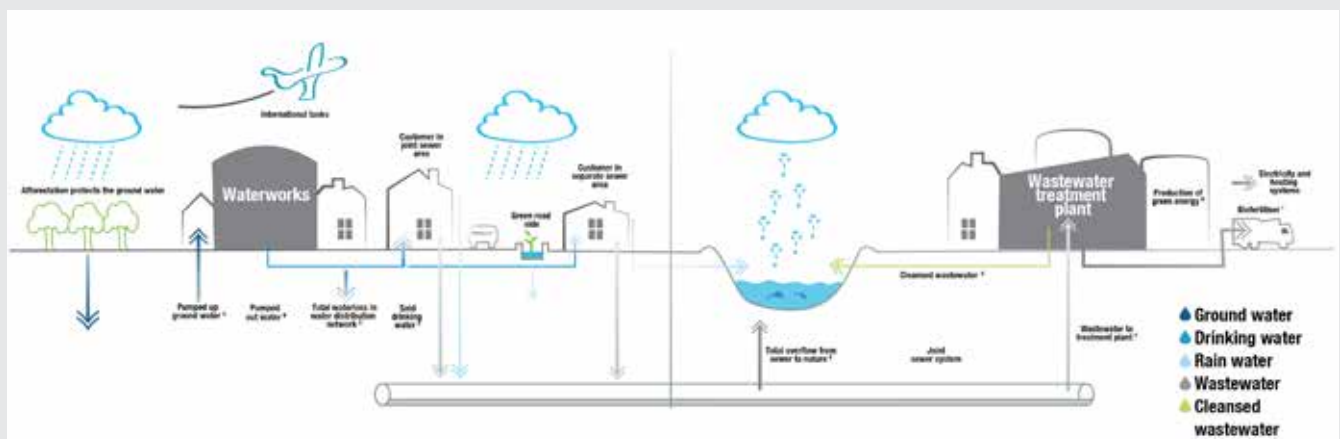
Solutions from AVK SMART Water not only supply information about the operations, but also about the geographical placement of a failure or damage. By digitising the supply, not only do you get valuable information about the state of the facilities, you also make employees more mobile which will lead to big savings in the long run. Both with respect to optimising the facilities but also with operational and maintenance costs

Golden jubilee

Prior to launching the new AVK Smart Water business unit, 50 years of AVK history have passed. In 1970, the first AVK valve was developed and sold to the Danish water supply, which at the time lacked a functional, sustainable shut-off valve for the distribution network. Inside the magazine, you can read about Niels Aage Kjær's 50 years jubilee as a manufacturer, and you can see one of the very first AVK valves manufactured back in the 70's which, after a thorough clean-up, still works. Also, there is more Smart Water on the agenda, and insights to where AVK contributes to climate adaptation projects around the world.

Enjoy reading.

Michael Ramlau-Hansen



Source: inspired by Vandcenter Syd, Responsibility report, 2019

WATERVILLE TO BE ON DISPLAY AT AVK PERMANENTLY

DENMARK



In 2016, 12 Danish companies joined forces to build a LEGO town with the purpose of illustrating Danish water competencies at the Water Summit Meeting of former President Obama at the White House in Washington DC.

*By Michael Ramlau-Hansen,
Global Brand Manager,
AVK Holding A/S*

The construction consists of 20,000 Lego bricks creating a 1x2 meter urban landscape displaying all the elements of a society's water infrastructure, from the point of locating groundwater, over water treatment, distribution, wastewater collection and treatment and up to the release back into Nature.

Waterville was built with the sole purpose of creating awareness. And indeed, it has. Since it was created in 2016 the construction has travelled

most of the world. And it is an amazing eye catcher at any exhibition, trade show or congress dealing with water. Immediately after the White House Water Summit, Waterville went on to the World Bank's Water Week in Washington DC and then returned home to the DANVA annual meeting on Frederiksberg. The construction has been in Munich at the IFAT-fair, it has

Article continues on the next page >

attended the Singapore International Water Week, the Copenhagen Vandtek, and it also visited the IWA World Water Congress & Exhibition in Brisbane, Australia. Waterville was presented to the Chinese during the IE Expo in Ruoyi Zhou and to Belgian water professionals during their delegation visit in Denmark. Waterville has seen Barcelona, Stockholm and Danish small-town Års and has spoken to the mayors of the C40 cities.

Last time Waterville touched upon AVK was last year as it created the background for the Danish story of water during our Advanced Water Management Summer School Course.

Now Waterville will be displayed permanently here at AVK. The many travels have affected the construction, and even though many bricks are glued together, it must be partially disassembled for transport which leads to a rather big reconstruction work every time a new destination has been reached.

At AVK Waterville is intended as a teller of the story of sustainable water supply, mentioning our products and how they fit into water infrastructure.



PUMP USAGE REDUCED BY 22 HOURS A DAY BY USING SMART WATER PRODUCTS

IRELAND

Through the installation of a Smart Water pressure management device, an Irish water company was able to reduce pump usage by 22 hours a day.

*By David Hurley
Business Development Manager,
Smart Products,
AVK UK*

Charleville is a small town located in Munster, the most southerly of Ireland's four provinces. The Charleville water supply scheme that delivers water to the town and surrounding area includes a covered distribution reservoir, similar to thousands across the British Isles. However, the reservoir is the location chosen by a major water supply company to install and trial an AVK Smart Water PMD (Pressure Management Device). AVK believes it is the first device of its type to be installed on this particular water network.

Plug and Play

The AVK Smart Water PMD is a 'plug and play device' that is capable of measuring pressure, flow and level; it can be fitted to a wide variety of different valve types. In the case of reservoir, an AVK Series 879 dual-solenoid control valve is installed below ground. It is linked, via a ducted hydraulic drive, to the associated PMD and valve controls housed above ground in a stone-built booth some 20m away. The PMD has now been

running successfully for over four months.

Energy Saving

Prior to the installation of the AVK Smart Water PMD, the pumps at the Charleville reservoir had worked continuously 24/7 to maintain the reservoir at full capacity. Now, the reservoir inlet (the location of the control valve and PMD) is closed off to allow the water level in the reservoir to drop before the pumps are activated.

This has brought two major benefits:

Water quality has improved due to increased water turnover, and there have been huge energy savings as the pump's activity has been reduced by 22 hours per day.

It is projected there will also be a major impact on the longevity of the pumps.

Internet of Things

Whilst the reservoir is a closed-loop installation, the full benefit of smart water devices like the AVK Smart Water PMD are realised when they



are distributed across the water network. The ability of smart water devices to send and receive data and instructions via the Internet of Things (IoT) enables water companies to respond to network events in real time. It is envisaged that the AVK Smart Water PMD will be integrated into the water company's SCADA (Supervisory Control and Data Acquisition) system.

Smart Solutions

The AVK Smart Water PMD is just one of a portfolio of smart water network products being launched by AVK during 2020. It places AVK Smart Water in the vanguard of companies developing solutions for water companies in this frontier technology.

LEAKAGE MANAGEMENT AND WATER QUALITY ON EU'S AGENDA

DENMARK

The European Drinking Water Directive from 1998 has been revised. Danish lobbyists have had a major impact on the directive which to some extent now follows Danish legislation and Danish guidelines. The new directive bears the name: Right2Water.



*By Michael Ramlau-Hansen,
Global Brand Manager,
AVK Holding*

In brief, the new Drinking Water Directive is concerned with water quality and water loss. In many European countries, there are strict requirements as to what materials may come into contact with the drinking water and to the presence of foreign substances in the drinking water.

In Denmark, our legislation does not permit leakage of more than 10% and leakages exceeding this limit are subject to pecuniary penalty. Unfortunately, it was not possible to introduce an immediate maximum leakage level into the new directive, but we have come part of the way as Right2Water now prescribes that:

“In five years at the latest, at least all major water suppliers that produce more than 10,000m³ of drinking water

per day or supply more than 50,000 people, must have measured their leakages.”

The Commission then calculates a threshold value on the basis of the water losses reported by the Member States. In Member States above the threshold, measures must be taken to reduce water losses. After eight years at the latest, the Member States must present an action plan to reduce their water losses. This is intended to improve the general under-investment in the maintenance and renewal of drinking water infrastructure in many regions of Europe.

AVK Smart Water is ready with products and solutions to help the water supply survey the situation, make the reporting simple and easy-to-read while pointing to the areas where an effective effort will make a big difference in bringing down leakage and energy consumption.

Better quality on the tap

As to the general quality of European drinking water, we have also seen an improvement: The Parliament and Council have decided that a positive list of all materials and substances that may come into contact with drinking water, will be pulled forward in the coming years:

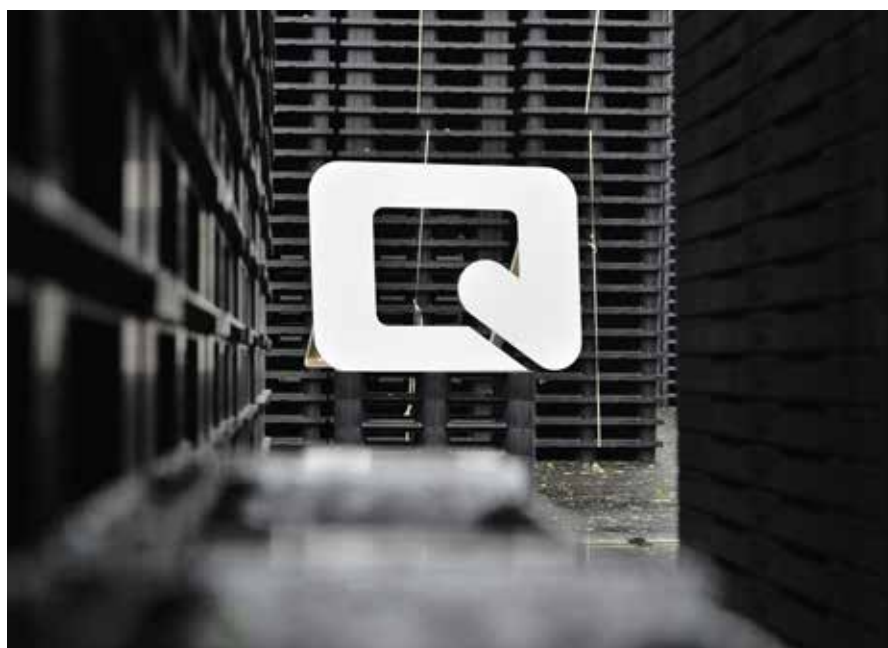
“Substances on this list must be regularly checked for their health risks. Only substances that do not pose a risk to health may end up on the positive list. Materials that are not on the list must not be used in drinking water systems.”

This initiative will reduce health risks for consumers, and at the same time, harmonised European rules will reduce unnecessary bureaucracy and save costs for manufacturers and their customers.

WE WELCOME Q-PALL TO THE AVK FAMILY

THE NETHERLANDS

On the 23rd of April this year, AVK Plastics BV has acquired a majority interest of 70% in the company Q-Pall Tooling BV. AVK Plastics now consists of 5 companies active in development, production and sales of high quality plastic products. The cooperation with Q-Pall, wholesaler of plastic pallets, originated in the year 2004. Sixteen successful years later, we welcome Q-Pall to the AVK family.



*By Jelle de Jong,
Technical Sales Coordinator,
AVK Plastics BV*

Q-Pall has become one of the biggest sales platforms in Europe for plastic pallets made out of recycled material and has a large network of dealers and end customers, generating a collective turnover of 25 Mio in 2019. Throughout the years Q-Pall has become a major contributor to the AVK Plastics' group turnover. Last year, approximately 19,000 tonnes(!) of recycled plastics were processed into good quality plastic pallets. At AVK Plastics we believe we can continue to grow this figure every year.

The Q-Pall way

Where traditional pallet wholesalers produce the pallets in one location and

then transport them to international clients, facing long delivery times and high transportation costs, Q-Pall follows the principle 'think global, act local'. The pallets are produced in local factories in multiple locations throughout Europe, mostly being AVK Plastics owned or controlled. The 'Q-Pall way' perfectly matches one of AVKs' promises: 'Expect global leadership and local commitment'.

Q-Pall serves a wide variety of customers across Europe, selling most pallets (>70%) in the Netherlands, Germany, France and Belgium. Q-Pall also covers many industry segments amongst which the Chemical, Consumer & Retail or Food sector.

Sustainability and cost efficiency

Contributing to a circular economy is one of the cornerstones of Q-Pall. All

Q-Pall pallets are made from recycled material. Furthermore, Q-Pall cleans and trades in used plastic pallets.

By having multiple production plants, i.e. being close to the customer, and moving moulds instead of pallets as much as possible Q-Pall not only keeps transport costs to a minimum, but also significantly reduces CO2 emissions. In addition, in good cooperation with all stakeholders Q-Pall always strives to save water usage, energy consumption, material consumption and waste.

The key to success is - and always has been - the combination of sustainability and cost efficiency.

NEEDLE VALVE FOR DAM BASE DRAINAGE RENEWAL

GERMANY



The water management association, Aggerverband, maintains several dams in the German state Nordrhein-Westfalen. For the renewal of the base drainage at one of these dams, AVK delivered a needle valve DN1200/PN16. The needle valve will be used as a bottom outlet for the dam in order to regulate the water level and keep it constant; even during heavy rainfall.

*By Ingo Sauer,
Product Manager, Water,
AVK Armaturen*

The first contact for the base drainage renewal project in Germany was made at the IFAT exhibition in Munich, where our showcased solutions made the executing plant engineer of the project aware of the possibilities of a partnership with AVK. The cooperation was then initiated by a meeting to discuss the technical operating conditions of a needle valve as well as an upstream butterfly valve and additional required fittings for the base drainage.

The executing plant engineer and the end customer went to our Italian AVK company AC.MO to inspect the production facilities as well as the quality of the equipment and a current installation with a needle valve of the requested design. Here, they were also given a computational proof of the flow rates to be provided, based on predetermined operating parameters.

During the technical approval of the needle valve with AUMA actuator, the strength, layer thickness and leakage rate were tested along with a dimensional test. The butterfly valve DN1200/PN16 with AUMA actuator was manufactured and delivered by Wouter Witzel, our Dutch colleagues within the AVK Group.

A year after the customers' first visit to AC.MO, the supplied valves and fittings were put into operation under surveillance of employees of the water management association, the executing plant engineer, a representative of the Cologne district government and employees of AVK Armaturen GmbH. The accurate function of the installation as well as the achievement of the required flow rates were observed and approved.

With this project, we had the opportunity to prove the performance and strength of AVK being "glocal", and we are pleased that the project has been successfully completed. Expect global leadership and local commitment!



AUTOMATIC CONTROL AND PRESSURE MANAGEMENT PREVENTS FLOODING, WATER LOSS AND DISRUPTED SUPPLY

INDIA

Especially when dealing with water shortage, every drop should be managed wisely. Through a water system upgrade, flooding issues and critical water losses have been eliminated, and the city of Chikodi now receives continuous water supply.



*By Peter Rajendran,
Managing Partner,
Evershine Enterprises*

and

*Chaitanya Krishna Karimsetty,
Business Development Manager,
Water Business India,
AVK India*

Chikodi is a town municipal council city in the Belagavi district of Karnataka, India. It functions as a subdivision of the district and has a population of around 40,000 people.

The water distribution network of the city runs on gravity with the river Krishna as its source. Raw water is pumped to the water treatment plant and is stored in a Master Balancing Reservoir (MBR), which is located at the highest point of Chikodi. From here, water is supplied to the network's five service reservoirs by gravity.

The project objective

Initially, the city experienced a recurring issue of water overflow at the service

reservoirs as the sluice valve was not closed in time. This led to a substantial amount of water wasted, not only causing lost revenue but also flooding of the nearby properties. The sluice valves had to be closed manually, and since there was no monitoring, this was only done once the issue had already emerged and water was overflowing.

To the five service reservoirs, water supply was run manually, and all reservoirs were supplied at the same time. This meant that water was not distributed equally, as by the time the water reached the fifth reservoir there was always a shortage of water.

Article continues on the next page >



AVK Products supplied to the project

- Sluice valves, DN80-250, 173 pcs
- Air valves, DN50-80, 21 pcs
- Wafer Type Butterfly valves, DN50-80, 21 pcs
- Pressure Reducing valves, DN80-150, 27 pcs
- One-way Altitude valves, DN80-150, 5 pcs



The AVK team conducted a survey and collected the actual demand of each service reservoir. Based on the survey, they designed and sized a one-way altitude control valve for each reservoir input and supplied them to site.

Immediate results

After installation of the valves, it was seen that the overflow of the service reservoirs was eliminated as the valves automatically shut off the supply once the required height was reached. The valves then automatically open once the water level drops more than 1-2 meters from the set point. This means no water loss (and non-revenue water) due to overflow, no flooding of the surrounding area and sufficient water available for the fifth service reservoir. The upgrade has also eliminated the need for human interference.

Pressure management securing continuous water supply

Before the project, water from each service reservoir was not distributed equally to all service connections, as the pressure was high closest to the reservoir and declining on its way to the farthest service connections. To make sure that all connections always have sufficient water, and that the

pressure is high enough, AVK also supplied pressure reducing valves to reduce and maintain a stable network pressure.

The AVK team did a pressure management survey and installed pressure reducing valves at critical nodal points. At the same time, sluice valves, air valves with isolation and butterfly valves from AVK were installed.

After installation of the valves it was observed that even the last service connection had enough pressure and that pressure was equal throughout the network.

AVK India worked closely with the contractor, Swastik Infralogic (I) Pvt. Ltd., during the installation and commissioning phases of the project, which was successfully completed by December 2018. The Project has helped the department of KUWS&DW (Karnataka Urban Water Supply and Drainage Board) to successfully run the new solution in the water supply system, and all further tenders have been changed to smart systems like the one in Chikodi.

COMPLETE REPLACEMENT OF SAND FILTER SYSTEM AT DANISH WASTEWATER TREATMENT PLANT

DENMARK

A complete replacement of the sand filter system at Herning Renseanlæg has been carried out, and VATECH 2000 has supplied 120 AVK butterfly valves fitted with pneumatic actuators for the project.

*By Martin Munk Pedersen,
Sales Manager,
Vatech 2000*



At Herning wastewater treatment plant, 25 years of operation of the sand filters had set their marks, and a complete replacement of the filters was necessary.

Increasing maintenance and decreasing performance were signs that the sand filters needed to be replaced. The valves were no longer closing properly and other parts of the system were worn out. For example, the slots at the bottom of the sand filter did not only pull water, but also sand and stones into the system.

Sand filtration is one of the final steps in the water treatment process before the water is discharged into nature. The taxes for discharge depend on the quality of the water purification. New sand filters to improve performance of the treatment process were thus not

only better for the environment but also for the economy, and in addition to the heavy requirements for maintenance, which took a lot of man hours, this also gave a financial incentive to replace the filters.

As a first step of the renovation, knife gate valves were installed to section the sand filter system, and allow each section to be individually disconnected for e.g. maintenance or other conditions that require the system to be taken out of service. Then one of the sections was shut down and inspected in details to get an overview of the conditions, and it became clear that the whole system needed to be replaced.

The wastewater to be cleaned in the sand filters is pumped into a trench, and from there it is distributed into

the 24 tanks in the system. The actual flow of wastewater into the system determines how many tanks are in use, and the amount of wastewater pumped into the trench and into each of the individual tanks is regulated by butterfly valves. Normal operation of the sand filter system has a capacity of approximately 300 l/s and a maximum capacity of approximately 1,500 l/s.

Part of the cleaning process in the filters is handled by biofilm, which is built up over time, and therefore it typically takes some time to reach the optimal performance of a new sand filter. However, shortly after the replacement, the new filters in Herning showed good results on the quality of water purification. Also, the sand filters became basically maintenance-free and immediately saved a lot of man hours.

AN EVERYDAY HERO IN A TIME OF CRISIS

The past months have been all about adaptations and new ways of working – and, for one of our own, direct supply of face shields to the local care and NHS workers out in the field.

*By Andrew Izod,
Managing Director,
Glenfield Invicta*

Rowan Speers joined Glenfield Invicta as a Technical Sales Executive in June 2019 and works out of Glenfield Invicta's Maidstone office.

As a graduate in Product Design from the University of West of England in Bristol, Rowan has a detailed understanding of 3-D printing. When he was furloughed at the start of April, Rowan decided to put his technical skills to good use by manufacturing plastic face shields for care homes and NHS workers, and has been doing so from his home;



“When I first started it was taking me about two hours to print each shield frame; 3-D printers can be a bit temperamental! Having made a couple of modifications to the hardware and change to some of the settings, I have now reduced this to around 50 minutes.”

Rowan is using a face shield design released by the Czech manufacturer of his 3-D printer (Prusa Research). He has been importing the material he uses from the Czech Republic too:

Creating the face shields is a family affair. Rowan's mother, Julie Speers, is the head of Design and Technology at Marlborough House School in Hawkhurst, Kent. The school has generously funded the materials. She has used the school's laser cutter to cut the plastic for the visor element of the face shield. By May 14th, Rowan and Julie have manufactured more than 500 face shields which have been distributed to people working in local NHS services, care homes and to the Air Ambulance Kent Surrey Sussex. Since then, many more have followed.

Rowan wanted to play his part and use his skills and expertise to support the frontline healthcare workers. Protective visors, although simple, are a fundamental piece of PPE that many frontline workers desperately need, and adds further about the future;

“We're talking to the end users and support groups who we are supplying reasonably frequently, so I think we'll just keep printing until they let us know demand is being met elsewhere (through traditional means) or the PPE is no longer required. Thanks to more generous funding from Glenfield Invicta in addition to that from Marlborough House School, I have another order of filament on the way and that should be enough for another 80-100 frames”

ORBINOX VALVES APPROVED FOR TRANSPORTATION OF DANGEROUS GOODS

ITALY

Back in March, ORBINOX obtained the approval certificate EN 14432:2014 for a range of their universal knife gate valves.

*By Leonardo Arsuaga,
Area Sales Manager, Italy
Orbinox, S.A.*



The EN 14432:2014 certificate indicates that the EX model knife gate valve is suitable for tanks intended for the transport of liquid chemicals and liquified gases.

EN 14432 requirements are very restrictive regarding valve tightness after high number of cycles, and the EX knife gate valve has successfully passed the specific type test. The product testing includes several air and water tightness tests.

In the specific case of Italy, ORBINOX EX knife gate valve has, besides the EN 14432-certification, met the qualifications of the production process according to ISO 9001 by the Ministero delle Infrastrutture e dei Trasporti.

The company was visited by two auditors from the Italian Ministry of Transport, and after checking that the valves performed according to the requested ranks, ORBINOX received the certificate of approval for the following knife gate valves:

- 14408 (CF8M) body, DN50-300, EPDM seat
- 14408 (CF8M) body, DN50-250, VITON seat
- 14408 (CF8M) body, DN80-250, NBR seat
- 0.7040 (GJS-400-15) body, DN100-150, EPDM seat
- All for 4 PSM (bar) and from -20°C up to +50°C

The EX model knife gate valve is a uni-directional wafer valve designed for use in various industrial service applications. The design of the seat and body assures non-clogging shutoff on suspended solids.



RETIRED VALVE FOUND ITS WAY HOME TO AVK HEADQUARTERS

DENMARK

At AVK, we continuously develop new and better products, but the older versions still apply safety to your pipelines - even after half a century of duty.

*By John Koch,
Technical Supporter,
AVK Holding*

Almost 50 years old, a valve from the 1970's was returned to our offices from Padborg Water Company, who thought we should experience its condition first-hand.

As our CEO Niels Aage Kjær celebrated his 50-year jubilee this June, the old valve joined the table as a symbol of many years of solid contributions to the water industry.

Back in the 1970's, the valve was sold from AVK Maskinfabrik; the original AVK machine shop which we now know as AVK International A/S. It was sold to Nordisk Wavin A/S, was then further distributed and ended up at Padborg Water in the South of Denmark.

Many years later, in 2018, the valve was returned to AVK International offices in Skovby, Denmark. It was sent to be inspected only, and not as part of a customer complaint. The customer



was simply amazed that the valve was in such a good shape after almost 50 years of active use.

Meanwhile, the valve has had a good brush-up and inspection here at AVK Tech's tool shop, as we are always very interested in understanding the conditions of our products after so many years of use.

The valve body, bonnet and wedge are produced from cast iron, and the rubber was, naturally, somewhat worn out. The old valve's body and bonnet had been coated with red primer, after which it had been top coated with blue epoxy.

After a thorough clean-up, the stem was rotating, the valve was able to keep tight and was basically fully functional. The valve has a bronze stem, which nowadays is mostly manufactured from steel.

The design back in the 70's had:

Bonnet, body and wedge core in grey cast iron, and flat bonnet gasket. The wedge (first generation) had part of casting epoxy coated, meaning not fully encapsulated and stem thread cut directly into the casting. The thrust collar was mounted with a lock ring.

All in all, the valve is a good example of how quality design and construction assure long-lasting, reliable products.

NIELS AAGE KJÆR CELEBRATED HIS 50TH WORK ANNIVERSARY ON 1 JUNE 2020

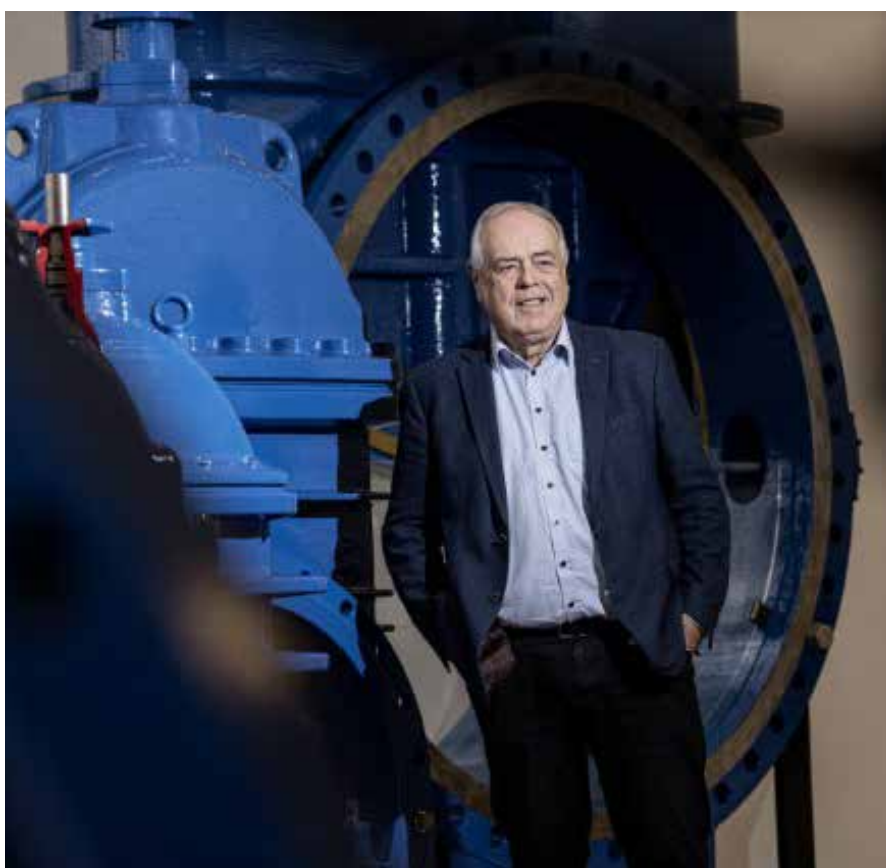
DENMARK

50 years ago, Niels Aage Kjær took over AVK from his father, Aage Valdemar Kjær. Through a great development, he transformed AVK from a small workshop to a successful worldwide group of companies.

*By Anne Sørensen,
Communication and Learning
Coordinator*

and

*Pernille Kjær,
Learning Manager,
AVK Holding*



Niels Aage Kjær is born and raised in Galten, Denmark. Already from a young age, he helped his father in the workshop on Søndergade in Galten. Later on, he was taken in as an apprentice before starting his studies. In 1967, he graduated from Odense Technical College as engineer, but he prefers to be called factory owner. On 1 June 1970, Niels Aage Kjær and his father became business partners. Sadly, his father passed away only a week after. At this time, AVK was a small workshop with only

AVK in Figures	1970	2020
Employees	3	+ 4350
Turnover	DKK 400,000	DKK 5,8 billion
Companies	1	103
Supplying to	Denmark	+ 80 countries globally
Segments	1 (Water)	3 (Water, Industrial Valves and Advanced Manufacturing)
Product series	1	209
Item numbers	1	+ 414,000

three employees that manufactured refrigeration systems and provided plumbing work in the local community. In 1970, Niels Aage Kjær developed the first AVK valve for water supply and built the first factory on Smedeskovvej in Galten.

With his drive and enthusiasm, Niels Aage Kjær has managed to turn the small, local workshop into a global group of companies with a billion Kroner turnover. Today, AVK is the leading manufacturer of valves and fittings within water and industry with factories and sales companies across the globe. In addition, AVK has also become an important player in the work towards greener solutions, clean drinking water and effective and sustainable solutions.

AVK's headquarter is still located in Galten, but today, the company employs more than 4300 employees in more than 100 companies worldwide.

During the last couple of years, AVK's development has accelerated via a number of strategic acquisitions – a strategy that will continue to shape the future. AVK is a company that is characterised by constant development, which indeed can be linked to Niels Aage Kjær's personal drive and enthusiasm. He is a charismatic leader, a skilled entrepreneur and business man and at the same time, he is a man with a strong will and perseverance.

The values quality, innovation, continuity and close customer relations were the foundation of the small workshop seven decades ago, but they still permeate the company today and will continue to shape the future of AVK.

Throughout the years, Niels Aage Kjær has received a number of honours – among others, the Order of the Dannebrog in 2010 and the award for honorary craftsman of the year in 2010

as well. But even with all the success and honours, this does not mean that he is all about the suit and tie. On the contrary, Niels Aage still likes to put on the yellow safety vest and the safety glasses and walk around one of the many factories – back to where it all began. Niels Aage takes great pride in AVK's products and ensuring that they are of the highest quality, but still takes his time to have a little chat with the employees. Therefore, throughout the years, AVK and not least Niels Aage have managed to attract and retain skilled and competent employees, and there is a mutual respect and interest for the wellbeing of AVK.

Apart from his success as a business man, the environment is high on the agenda for Niels Aage Kjær. He has worked with WWF and helped increase the focus on the rising consumption of plastic as well as the need for better handling and recycling of plastic in Denmark – a topic he has also included on AVK's agenda.

Niels Aage also has a great passion for art - something he shares with his wife, Ellen Margrethe. This passion for art is also very visible when visiting AVK Holding's headquarter on Søndergade in Galten as well as the AVK Academy and Visitor Centre in Skovby. Throughout many years, AVK has also been a proud sponsor of art, culture and sports in the local community. In his spare time, Niels Aage enjoys playing golf on the AVK golf course in Silkeborg-Ry Golf Club and when the weather allows for it, he enjoys sailing on the lakes in Silkeborg.

Due to COVID-19, the planned reception and celebrations for business partners and employees have been rescheduled for June 2021.



ZERO DISCHARGE OF INDUSTRIAL CIRCULATING WATER

CHINA

AVK provided a wide range of product options and advanced technical support for the water treatment centre project, and customised a complete solution for HBIS Group to match the various needs of valves in different process sections. The solution secured a safe and stable operation of the entire system.



*By Ken Yan,
BD & Marketing Director,
AVK Valves (Shanghai)*

As one of the world's largest steelmakers, HBIS Group Co., Ltd (HBIS) is devoted to providing various industries with the most valuable steel material and service solutions, aiming to become the most competitive steel enterprise. HBIS has become China's largest supplier for home appliance steel, second largest for automotive steel and the leading steel supplier for nuclear power, marine engineering, bridges and construction. Up to the end of 2019, HBIS has almost 120,000 employees, among which about 13,000 overseas employees are included. With revenue of 354.7 billion RMB and total assets of 462.1 billion RMB, HBIS has been the Global 500 for eleven consecutive years and ranks 214th in 2019.

In order to greet the XXIV Olympic Winter Games and improve the

environmental quality around Beijing and Tianjin city, HBIS decided to withdraw all its steel capacity from Zhangjiakou area, and implement the project of HBIS industry upgrade and Xuangang capacity transfer in Leting Economic Development Zone of Tangshan City, that required the supporting water system to achieve zero discharge of industrial circulating water.

It is generally known that an industrial water project is characterised by a complex treatment process with high technology requirements. Throughout the entire water system project, the construction of the water treatment centre is a key point. It covers an area of more than 80,000 m², with the treatment scale of 240,000 m³/h. The construction content includes the water supply system, the wastewater pretreatment system, the desalination system, a concentrated brine treatment system and supporting facilities.

AVK provided a wide range of product options and advanced technical support for the water treatment center project, and customised a complete solution for customers to match the various needs of valves in different process sections, which finally secured a safe and stable operation of the entire system.

Nearly 200 AVK valves are delivered to this project including resilient seated gate valves, metal seated gate valves, double eccentric butterfly valves, eccentric butterfly valves and swing check valves, which are mainly used in wastewater regulating tanks, high efficiency sedimentation tanks, V-filter tanks, sludge dewatering rooms and comprehensive dosing rooms.

Expect solutions, not just products

Each customer has unique needs. Some of them are covered by our

Article continues on the next page >

standard products, while others are so complex that they require a customised solution. Either way, it takes dedicated expertise to choose the right solution and achieve the highest quality - all at the best price. To choose the right solution for our customers, we are closely involved in the entire specification and implementation process. The more insight to these processes, the better the solution will be, saving both time and long-term costs.



GLENFIELD INVICTA PROVIDE VALVES FOR MAJOR REFURBISHMENT PROJECT

UNITED KINGDOM

By capacity, Kielder Water is the largest man-made lake in Northern Europe. Capable of holding up to 200 billion litres of water, it has a 43km shoreline and is the location of England's largest hydroelectric plant.



*By Jim McAllister,
Project Manager,
Glenfield Invicta*

The construction of Kielder Water began back in 1975 with the primary role of underpinning the Kielder Scheme, a regional water transfer system in the Northeast of England.

Maintaining the flow

The structure, which forms a fundamental part of Northumbrian Water's supply network, is designed to allow water from Kielder Water to be released into the Rivers Tyne, Derwent, Wear and Tees. The water is used to maintain minimum flow levels at times with low natural rainfall and allows any additional flows to be released for both domestic and industrial abstraction.

Refurbished by 2020

Riding Mill Pumping Station, which was the largest in the UK when it was built in 1979, is the facility that transfers the water from Kielder via a tunnel from the Tyne to the three other rivers.

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In 2019, Northumbrian Water started a €13.5m refurbishment programme of the pumping station, which is scheduled to be finalised by the end of 2020.

At its construction, the pumping station had four active pipelines (DN700, PN40) connected to the main manifold. On each of the lines, the pump was connected to a Glenfield Invicta multi-door recoil valve (DN700) by a long dismantling joint (DN1600).

Removing and replacing

Northumbrian Water's refurbishment programme specified that a further DN700 butterfly valve should be installed onto each of these four lines. This valve will provide a second point of isolation, in case future work on the pump will be required. To accommodate the second butterfly valve, the dismantling joint was

detached and replaced with a DN1600 long sub-assembly consisting of a spool piece (DN700), a manually operated butterfly valve and a shorter dismantling joint.

On a fifth line, the DN700 pipe had been detached and replaced with a DN300 line supplying the pipe, a non-return valve and two butterfly valves. The valves were fitted with gearboxes and actuators and were specifically coated to meet the client's engineering specification.

For the Glenfield Invicta team, this was a very interesting and challenging project. The installation tasks on all five lines had to be finalised within a five-day period during which the pumps were taken offline. To further complicate matters, there were several other aspects of the refurbishment

project under way on site at the same time.

The success of the project was primarily down to two key factors; Firstly, our package of works enabled us to design and fabricate all the subassemblies in the Glenfield Invicta workshop, as well as source all the fittings, fasteners and valves from within the AVK Group. This simplified communications and enabled us to keep a tight control over timelines.

Secondly, we invested considerable time and resources in planning the works before we arrived on site. The extent of our engineering capabilities significantly contributed to the completion of the project ahead of schedule, despite the tight time frame.

AVK AROUND THE WORLD

THIS GREEN AVK WATER POST SUPPLIES THE CITIZENS OF HELSINGØR WITH FRESH DRINKING WATER

By Arne Hjortshøj, Senior Group Procurement & Sourcing Specialist, AVK Holding A/S

The AVK 'Victoria' fountain post is manufactured in an elegant vintage 1900s style and is used for water supply in public areas and gardens. The operating knob closes automatically when not activated, and the entire installation is frost proof which is an advantage considering the Danish weather.

It is manufactured at AVK Haut Marnaise in Joinville, France.



AVK UK DELIVERS THE PREFERRED PIPE REPAIR SOLUTION

CZECH REPUBLIC

Based on years of trying different products and approaches, a Czech water company now considers UK's repair clamps the far best solution for fractured pipes with angular deflection.



*By Petr Mares,
Sales manager,
AVK VOD-KA*

The water company VHS Vrchlice-Malec, A.s., which is located in the famous historical city of Kutna Hora, uses repair clamps from AVK UK to fix pipe fractures. More specifically, they use the series 253/30 Supa Collar universal repair clamps and have been doing so for about 15 years now,

simply because they work so well when dealing with pipe fractures with angular deflection.

The workforce at VHS Vrchlice-Malec, A.s. had often experienced slight misalignment at the transverse fracture of the pipeline. This type of fracture happens due to the soil's massive pressure on the pipeline.

Ideal choice after broad testing

Before the company started to use the clamps, they tried many different solutions to tackle this specific type of fracture. Based on all their testing, they were able to conclude that at first sight, many standard cast iron repair clamps with full-surface sealing were actually able to repair the fracture. But, by using these full-surface sealing versions, the pipeline is immediately pressed back into its original position, which means the position in which the break was originally caused. In some cases, the following pressure on the pipeline is so great that another fracture occurs just a few meters

next to the first. So, while not just repairing the fracture but also avoiding unnecessary stress and new fractures to the pipeline, the series 253/30 was the obvious choice.

Main benefits of the series 253/30:

- Fit for repairing damaged piping, connecting and offsetting pipe ends up to 4°,
- A tolerance of almost 3 cm per dimension allows repair of different types of pipes and atypical external dimensions,
- Very simple to install thanks to compact design and minimal number of free parts,
- Fixed seal on recesses, o-rings to prevent the screw from falling out, and countersunk screw heads.



AVK CHINA SECURE THE RELIABLE DELIVERY OF EVERY ORDER

CHINA

2020 has been a special year, and also a challenging one for Chinese manufactories. We have kept a consistent focus on our customer's needs, and have ensured that every order is delivered on the customers' demand.



*By Ken Yan,
BD & Marketing Director,
AVK Valves (Shanghai)*

2020 is a special year with COVID-19. It is also a challenging year for Chinese manufactories. Due to the outbreak, the AVK Anhui factory was closed nearly one month and returned to normal operation on February 10. Since then, all AVK employees have been hardworking and making the scientific protection to face the current situation. We consistently focus on customer needs, make every effort to ensure the stable and reliable operation in the factory, arrange production

plans and logistics transportation in an orderly manner, and ensure that every order is delivered on the customers' demand.

In early April, the delegation of Jiaxing United Sewage Co., Ltd. and Zhejiang SUPCON Technology Co., Ltd. (EPC) came to the Anhui factory to witness the hydraulic test of a large diameter metal seated gate valve (DN 1800) which is used for Jiaxing wastewater treatment external discharge pipeline and pump station project. During the witness test, they conducted deep discussion on the valve's quality and technology, and full recognition was given to our reliable delivery ability during the outbreak.

Meanwhile, the delegation experienced our factory tour and intuitively saw the production process of each valve, from accessories, shot blasting, spraying,

packaging and delivery. Each step of the complete production line reflects the demand for product quality at AVK.

The project in details

This is an important part of Jiaxing wastewater treatment capacity expansion project. The pipeline covers about 63.5km with the diameter of DN1400-DN2200, the maximum wastewater transmission capacity at the end is 400,000m³/d, and 3 pumping stations will be built to support it.

This project is mainly based on industrial wastewater with relatively complex medium, and a large-diameter gate valve is essentially required to ensure the effective

Article continues on the next page >

operation of wastewater collection and transmission. Finally, AVK's large-diameter metal seated gate valve (MSGV) became the customer's first choice in views of its high quality, strong durability and cost effectiveness.

AVK metal seat gate valves for this project vary in sizes DN2200, DN1800,

equipped with AUMA electric actuator. One DN1800 MSGV weights about 17-18 tons as well as the huge volume, and DN 2200 MSGV will be heavier and larger. AVK have already made the comprehensive solution for packaging and transportation. Additionally, DN2200 MSGV will be the biggest one in Chinese market. It is a brilliant milestone for AVK China business.

THE SUPA LOCK™ SOLUTION GETS EVEN MORE REFERENCES

Throughout 2020, we will be supplying products to an extensive project of constructing utility lines near the capitol of Prague, Czech Republic. About 600 AVK service valve sets including saddles, service valves, telescopic spindles and street boxes will become part of the construction.

*By Milos Hybrant,
Sales manager,
AVK VOD-KA a.s.*

The preparation for the project has taken several months. As it turned out, a significant aspect in the selection of our products was the operator's good experiences with our products; he has been using AVK Supa Lock™ products frequently and with good results.



A broad range of benefits

The key argument was easy assembly of the valves, which will be highly appreciated by the construction company. Also, technical features such as greater clearance and elimination of the risk of threaded connections from the operator's point of view will add great value; the operator was aware of the risk of threads causing water losses at the operating sites. The construction company appreciated that there was no need for special tools, and that the solution was vastly time-saving. For the

operation company, the anti-corrosion coating and the thread-less design were clear benefits.

I worked closely with the construction company regarding all the design and investment before the project was finally implemented. Key fitters were trained in how to use the valves to assure the most optimal instalment and use. The value of the whole project exceeds 150,000 EUR.

AVK RECOMMENDATIONS WIN WATER DRAINAGE TUNNEL PROJECT

QATAR

Coping with storm water in Qatar, the Ashghal Abu Hamour (Mesaimeer) Water Drainage Tunnel is introduced in Doha – including the state's very first HPU-operated penstocks.



*By Dias Thottan,
Regional Sales Manager,
AVK Flow Control Qatar*

The southern areas of Greater Doha have expanded and developed rapidly in recent times. Consequently, there has been a requirement for increase in the capacity of the drainage system to accommodate additional surface water runoff. The drainage project is a part of Ashghal's mega plan for an enhancement of the sewerage network covering the Doha and Rayyan area.

Ashghal, The Public Works Authority of Qatar, is currently responsible for all infrastructural projects and public buildings in Qatar, managing and coordinating projects worth more than 100 billion Qatari Riyals.

The project

The Abu Hamour (Mesaimeer) Southern Outfall Scheme involves the construction of a storm water tunnel along the proposed F-Ring

Road from Musaimmer street at an average depth of approximately 25m. The tunnel is constructed to the site of a coastal pumping station located in the New Doha International Airport and will provide main trunk surface water drainage for the majority of the southern half of Doha – an area that covers approximately 170 square kilometers.

The scope of work involved the construction of a 9.5 km long and 4.5 m wide water collection tunnel, as well as the construction of 21 access shafts of various diameters and depths ranging from 15 to 30 m. The shafts will be carrying water with high concentration of chloride, sulphate and groundwater in a hot and humid environment.

In June 2018, Metito Qatar was awarded the Abu Hamour New Tunnel Shaft Discharge Works, Operation & Maintenance of pumping stations project.

Maintaining close cooperation with Metito, staying true to our "Expect AVK" promise and exceed customer expectations was key to winning the project. After several meetings and discussions, AVK Flow Control & Orbinox presented two of their key tailor-made innovations to Ashghal as solutions to the operation and maintenances of the pumping stations.

As per the tender project designs, Ashghal's specifications stated the use of hydraulically operated knife gate valves. AVK's recommended solution was to use hydraulically operated penstocks instead, each shaft with an Individual HPU, when considering the size, water heads, open/closing time, mounting location and ease of operation and maintenance.

Quick and easy operation is key. When working with natural, unforeseeable events such as storm and rainfall, quick action is crucial. Ashghal's key requirement was to be able to operate the valves quickly, and



the fast opening and closing times of both the knife gate valves and penstocks played a pivotal role.

Focused on the customer's needs, the solution was well accepted by Ashghal. July 2019 saw the installation, delivery and commissioning of the solutions at site to a highly satisfied customer.

The hydraulically operated penstocks from Orbinox were the first of its kind to be installed in Qatar.

Interesting fact

Up to 16.5 m³ of water flows through the Abu Hamour drainage tunnel every second, meaning it could drain an Olympic swimming pool in around two and a half minutes.

Products supplied

- Shaft 11 with 2 Nos of 1800x 2500 MM Hydraulically Operated Penstocks
- Shaft 22 with 3 Nos of 1800x1800 MM Hydraulically Operated Penstocks
- 2 Nos. of HPU's and 1 Control Panel for each Shaft

PIPE FAILURE AND PREVENTION ON THE AGENDA IN UK WEBINAR

The Institute of Water hosted an AVK UK Webinar regarding Water Network Safety; a technical talk on the common causes of pipe failure and how to fix them

*By David Hurley,
Business Development Manager,
Smart Products,
AVK UK*

During lockdown, AVK UK held a successful Network Safety Solutions Webinar on May 26th – thank you to all who participated.

The webinar explored the interesting subject around the common causes and prevention of pipe failure and was followed by questions and comments from the audience. Following the webinar, we have been asked for input and assistance on several projects.

The webinar invitation read as follows:

Pipe failures affect all UK water companies and can be quite costly; not only to repair but also in reputational damage. But how do we avoid them?

Did you know, that placing the right type of valve in the right spot can make all the difference?

The Welsh Area Institute of Water invites you to join in a collaborative webinar with AVK UK where we will discuss:

- common causes of pipe failure,
- prevention and innovative products, and
- AVK support tools.

AVK work closely with the UK Water Industry offering a range of products, including self-acting installations, and are dedicated members of the Institute of Water.

Thank you also to the Institute of Water who hosted the webinar. If you did not attend, but would like to know more about the subject, please do not hesitate to contact David directly.

CORONA: STAYING SAFE IS NOT FOR EVERYONE

DENMARK

I bet you've washed your hands more often over the past months? That is, if you are that lucky.

The Corona virus continues to hold a firm grasp on people's attention worldwide and the media cover the development, the consequences and compare to previous similar occurrences.



*By Michael Ramlau-Hansen
Global Brand Manager
AVK Holding*

Back in March, I came across a memo from the World Water Council whose headquarters are located in Marseille, France. The memo showed that the organisation has distributed 80,000 pieces of soap to the people of Senegal at a ceremony held in their capital Dakar. The memo reads: "The State of Senegal and the City of Dakar are the partners of the World Water Council in the organization of the 9th World Water Forum to be held 22-27 March, 2021. "It's a small but symbolic gesture of solidarity", said Mamadou Dia, Governor of the World Water Council, insisting on the fact that "water is life and during this pandemic, water combined with soap helps preserve life."

Given that two out of every five people in the world do not have running water and soap at their disposal at home, this symbolic gesture once again emphasizes the importance of water on the health and survival of people. Without water, there is no use for soap.

While the Corona virus has caused over 400,000 deaths (as per June 6, 2020) according to the UN, more than 2 million people die every single year from water-borne diseases. The Corona virus rightly claims the full attention of our politicians, but with this attention we need to remember how we continuously neglect the importance of water with regards to health. Both when it concerns a proper and sustainable water supply, but also when it comes to proper sanitation, a point also made by the UN in their latest World Water Report, published on World Water Day, 22 March. In areas where wastewater is handled properly and securely, the industry

can proudly say that it saves more lives every day than the entire medical profession does in a year.

Why then must we accept that up to 80% of the wastewater produced by humans is directed straight into Nature without any kind of treatment? Why must rivers, lakes and coastal regions continue to be a health risk and a source of massive pollution? And why must millions of people in big cities continue to wander around in a stench of sewers, because the river passing through their city is used as an open waste water pipe?

Let us continue to fight the Corona virus with all available means but let us also launch projects that make a difference in those areas of the world where water is insufficient or unsafe, and where wastewater is not treated properly, safely and sustainably.

NON-REVENUE WATER AND ENERGY-EFFICIENCY IN FOCUS AT SAUDI ARABIA VISIT

SAUDI ARABIA

Back in February, AVK Saudi Valves were invited by The Trade Council of Denmark in MENA to a three-day tour in Tabuk city, Saudi Arabia, to talk about cooperation opportunities within water distribution and wastewater treatment. Besides AVK Saudi Valves, the council was accompanied by the Danish companies of Aarhus Vand A/S, Danfoss and GRUNDFOS.



*By Mohammed Hamad,
Head of Product Management &
Export,
AVK Saudi Valves SVMC*

The first day was kicked off with productive discussions about the specific opportunities of increased cooperation between Denmark and Saudi Arabia in the water sector. The meeting was followed by a site visit to see parts of the water distribution system in Tabuk.

The second day included a site visit to a sewage treatment plant. It was a great opportunity to share knowledge about wastewater and the ways of obtaining more energy-efficient sewage treatment plants (STPs). Afterwards, a meeting was held to discuss the many

opportunities for cooperation and optimisation based on the plant visits.

On the last day, a workshop was held where the companies presented their solutions and ideas to the National Water Company for reducing the amount of non-revenue water and for creating energy-efficient sewage treatment plants.

The workshop was attended by the Head of the Northwestern Sector of the National Water Company Eng. Ayman Y. Yamani and his team. AVK Saudi highlighted the importance of using high quality pressure management design and equipment to ensure a healthy distribution system based on the critical points and the demand of the area. This includes among other factors, the right use and design

of the control valves, air valves and other solutions that can help reduce unauthorised water use and amount of network leakages. In addition, AVK shed more light on the importance of the fast reaction time when an accident or a burst happens and its big role in reducing non-revenue water.

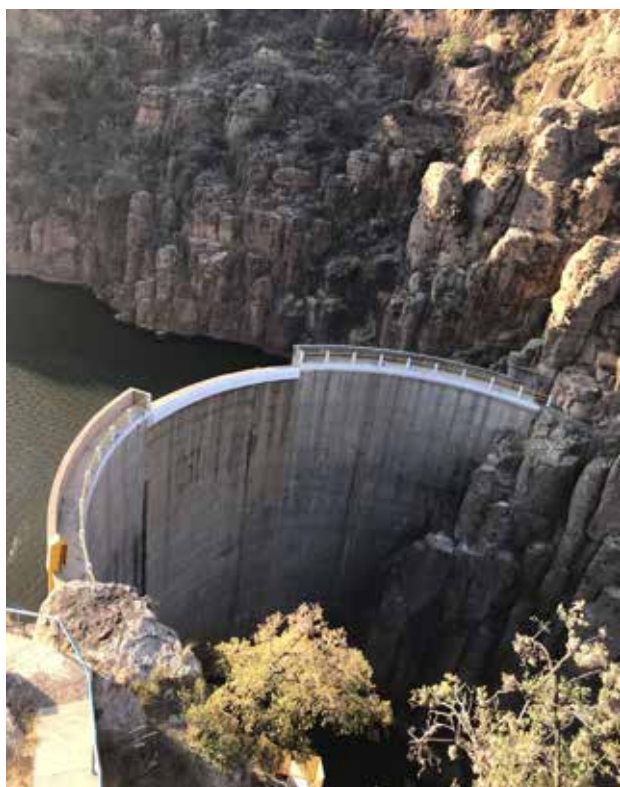
Water is a scarce resource and we need to consider, develop and operate every single part of the water cycle as efficiently as possible. AVK is playing an important role in the region to bring cooperation and efficiency to the next level. At AVK Saudi, we are pleased by the openness we have been met with and hope this is only the first step towards a new public private partnership within the water business.

CHALLENGING DAM REHABILITATION PROJECT IN AGUASCALIENTES

MEXICO

Under CONAGUA, which is the National Water Commission of Mexico, several rehabilitation projects for dams and reservoirs in the Mexican state of Aguascalientes were initiated at the end of 2019.

*By Ing. Juan José Avalos,
Sales Manager,
AVK México*



One of these projects concerned the El Potrerillo Dam from 1950. The dam has a 2,038,000 m³ reservoir, which was in need of new equipment, especially regarding two critically positioned gate valves. The two valves were DN30" (800mm) and DN18" (450mm).

Under CONAGUA's supervision, the local contractor was a bit challenged in replacing the DN30", which is a series 55. And by adding that this is a 2.3 tonnes heavy product, and that the pipe installation point is approximately 200 meters from floor level, it sure does not sound like an easy task.

But eventually, the task was successfully commissioned and as the Aguascalientes Manager of CONAGUA adds: "AVK met and exceeded our expectations, and we will keep AVK in mind for our next requests".

Aguascalientes is known for its industrial and economic development, and in 2020 the state was appointed the decade's fastest-growing state in Mexico.

WATER TREATMENT PLANT FOR THE CITY OF PÍSEK

CZECH REPUBLIC

*By Jiri Zimandl,
Sales Manager,
AVK VOD-KA*

and

*Ing. Roman Honzík,
Manager of the Water Department,
The city of Písek*



Recently, the water treatment plant for the town of Písek was put into operation. Písek is situated in the South Bohemian Region of the Czech Republic and is interesting for its history dating back to the 13th century. For decades, the city has been using resources brought in from many kilometers away.

Therefore, and decided by the city management, the main reason for the construction of the water treatment plant was to ensure independence from remote sources in the supply of

water to the city. The city now wants to only use local resources from which - thanks to good technology - can deliver drinking water of high quality. Despite the vast investment in new construction, the price of water will still be very favorable for the citizens of the city.

The treatment plant has a total capacity of 70m³/sec and will be supplying the nearly 30,000 inhabitants of the city.

The plant uses surface water from the Otava river situated at the outskirts of the city. The city's total investment in the project was almost 10M EUR, of which the included AVK fittings amounted to almost 200,000 EUR.

The investors, namely the town of Písek, has had previous experience with the AVK brand which turned out to be an advantage. Through cooperation with the designer company, and through presentations of technical solutions based on local area knowledge, the order ended up at AVK VOD-KA.

Expect quality in every step

During the construction, the customer appreciated the adherence to the deadlines for the delivery of materials and the flexible reaction to the requirements for on-site changes.

After a year of operation, everything works as it should and with no exceptions. The flawless results have already led to additional orders of AVK products to another investment project in the city.



AVK PRODUCTS OFFICIALLY DECLARED HALAL

INDONESIA

Expect us to exceed market standards; In AVK Malaysia, we can now document that our valves are manufactured based on halal practices.

*By Dinesh Thiagarajah,
Regional Business Development
Manager, S&SEA,
AVK Malaysia*

The concept of Halal

Halal is an Arabic word that translates into “permissible” or “lawful”; is a term exclusively used in Islam. Its contrast is haram, meaning “forbidden”. When most people think of Halal, thoughts are often confined to food and beverages. However, Halal and non-Halal covers all spectrums of Muslim life, also concerning aspects such as safety, animal welfare, social justice and sustainable environment. Many of us have probably heard about it, especially regarding which foods and beverages are accepted (or not) as Halal. But actually, Halal concerns the processes behind all kinds of products and services.

Market front-runners

Muslims make up about 42% of the total population of Southeast Asia. Being the official religion of Malaysia and Brunei, Islam is also one of the officially recognised religions of Indonesia, Thailand, and the Philippines.

Indonesia is the world's largest island country with 267 million inhabitants, of which 87% is Muslim. It is the world's 4th most populated nation as well as

the most populated Muslim-majority country in the world.

Malaysia is a country of great diversity, and of its 32 million population about 70% is of Malay origin and the remaining 30% are of Chinese, Malaysian Indian or Other origin.

82% of Brunei's 437,000 inhabitants are Muslims. Many cultural and linguistic differences make Brunei Malays distinct from the larger Malay populations in nearby Malaysia and Indonesia, even though they are ethnically related and share the Muslim religion.

Therefore, the concept of Halal is an important focus point and works as a driver within the society of these countries. At AVK, we have great respect for our culture, our communities, the principles of our customers and for enabling them to choose the products and services that best fits their needs and requirements.

Halal certified rubber compounds

Certain chemicals used in the production of synthetic rubber can be derived from different animal fats.

Since, especially drinking water, comes in direct contact with the different elements of the valves, it is important to assure that the elements are Halal. It is also a proof that the products have been thoroughly checked in accordance to the Islamic Sharia Laws by the concerned board.

From now on, our pricelists and marketing materials will include an official declaration that the organic materials used in our products are based on the halal principles. This signals to our customers that our company values their perspectives and principles, and hopefully it helps them identify with AVK as a brand. Additionally, it helps us stand out from the crowd as none of our competitors are halal certified. We see it as an additional benefit of choosing AVK as supplier, alongside high quality and lasting design.

As seen in the above image, we can now present halal certificates for our rubber compound produced at AVK Gummi for our valves.



BOOSTING DISTRIBUTOR PRODUCT KNOWLEDGE FROM A DISTANCE

INDONESIA

At AVK Fusion Indonesia, they have used their work-from-home period to create a better understanding of AVK products among some of their important customers; distributors.



*By Ahmad Fairu Zabadi,
Marketing Manager,
AVK Fusion Indonesia*

From March 20 to June 15, most of Indonesia has been working from home, and as in many other countries this has made it difficult to uphold the daily tasks. At AVK Fusion Indonesia, they saw it as an opportunity to reach out to their key distributors, who were now probably also working from home, and offer them valuable insight for use in their daily job.

The objective of the online training was to strengthen the distributors' knowledge about AVK products, and to afterwards measure the actual distributor knowledge to evaluate on potential gaps.

Different training tracks were created, including water, wastewater, the industrial segment and fusion, for

which they offered different sessions with the following subjects:

- Valve Basics
- Gate Valves
- Butterfly Valves
- Air Valves
- Ball Valves
- Check Valves, Repair Clamps & Fabricated items
- Valves for Wastewater Application
- Non-revenue Water and Control Valves
- Fire Protection Valves
- Electrofusion and Spigot Fittings
- Industrial Butterfly Valves, Vulcanised Bonded Lining / Teflon Lining
- High performance Butterfly Valves, Double / Triple offset
- Application of Industrial Valves, Oil & Gas / Desalination Plants / Dams, Reservoirs & Hydropower

The online training took place via Zoom, and links were sent out as e-invitations and e-mails. The session

was Live-streamed and saved on YouTube as well, available with a secure link. Afterwards, a follow-up quiz was sent out, and after submission the distributor was able to download and print a training certificate.

Part of future customer relations

Over the months of April, May and June, there has been 29 training sessions in total, and by the 19th of May almost 450 distributors had participated (with five sessions left). The feedback on the training has been great, and the distributors have left the sessions full of new knowledge for use in their work.

So far, no competitors of AVK Indonesia have offered anything similar, and it is the plan to keep offering online training; next up will be training directly to customers, as for example public water companies.

COMPETITION



We are happy to announce that the winners of the competition in AVK Interlink no. 53 are:

- Justine Dronfield, AVK UK Limited
- Anne-Marie Nielsen, AVK Tech A/S
- David Mares, AVK VOD-KA a.s.

Gifts are on their way.

The correct answer is: it takes 15 minutes to produce raw oil from waste at the AU test facilities in Denmark.

New competition:

How many LEGO bricks have been used to create the Waterville construction?

Send an e-mail with the correct answer in which you state your address and the gift you would like to receive – if you win.

E-mail to: lios@avk.dk

Choose between:



Beach towel with AVK valve



Picnic grill in a cooler bag



Ocean bottle

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