



**EXPECT  
STORIES FROM THE  
AVK WORLD**



# GLOBAL WATER BANKRUPTCY

The world is not on the verge of water bankruptcy – it has already gone bankrupt in terms of water.

This is according to a new report published by the United Nations University Institute for Water, Environment and Health.

As our water resources become increasingly polluted, as climate change intensifies, and as consumption patterns change – with larger cities in particular experiencing population growth and increased industrialisation – water supplies are coming under enormous pressure to deliver the required volumes to maintain a 24/7 service. The report states: “Groundwater now provides about 50% of global domestic water use and over 40% of irrigation water, tying both drinking water security and food production directly to rapidly depleting aquifers. Around 70% of the world’s major aquifers show long-term declining trends. Excessive groundwater extraction has already contributed to significant land subsidence over more than 6 million square kilometers – almost 5% of the global land area – including over 200,000 square kilometers of urban and densely populated zones where close to 2 billion people live. In some locations, land is sinking by up to 25 centimeters per year, permanently reducing storage capacity and increasing flood risk. Surface waters are shrinking at scale. A growing number of major rivers now fail to reach the sea or fall below environmental flow needs for significant parts of the year. More than half of the world’s large lakes have lost water since the early 1990s, affecting around one-quarter of the global population that depends directly on them for water security.”

Water supplies that rely on meltwater from mountains are also facing challenges. The report states that: “The world, in multiple locations, has already lost more than 30% of its glacier mass since 1970. Several low- and mid-latitude mountain ranges risk losing functional glaciers within decades, undermining the long-term security of hundreds of millions of people who rely on glacier- and snowmelt-fed rivers for drinking water, irrigation, and hydropower”.

Climate change does not only pose a challenge to water resources; it is also contributing to changes in consumption. During periods of drought, consumers naturally use more water. In order to maintain a 24/7 supply, the utility company must factor in a buffer, ideally 30% of the supplied capacity.

In 2023, the World Bank published a report addressing all national governments: ‘Do you know how much water you need now, in 10 years’ time, and in 20 years’ time? And do you know how much water you have available now, in 10 years’ time, and in 20 years’ time?’ I’d guess the answer is probably NO – we don’t know.

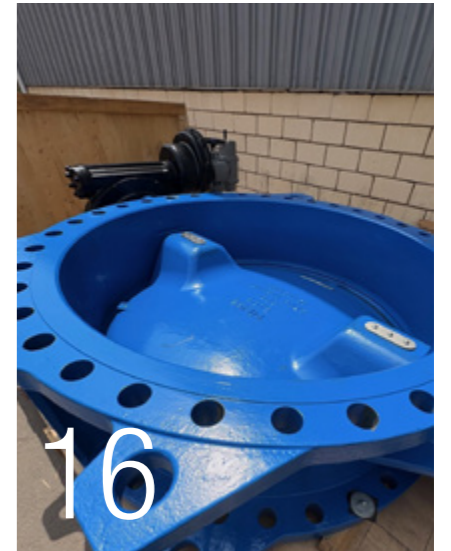
One thing that could be done, and something AVK can help with, is to plug the leaks in distribution networks worldwide. In this way, savings of up to 30% can be achieved initially – which is currently the average water loss rate. DMA technology and digitalisation are the way forward for reducing water wastage in the distribution network.

Have a great summer, enjoy the read, and thank you for reading.  
Michael Ramlau-Hansen



Read about the successful IFAT tradefair, which once again served as a meeting point for new partners, new products, and knowledge sharing, all in a positive and vibrant atmosphere.

Glenfield Invicta has specified, designed, fabricated, and installed three series 856 submerged discharge valves at Southern Water’s Bewl Reservoir.



The Royal Commission for Riyadh City has launched the “Green Riyadh” program, one of the world’s largest urban afforestation initiatives. AVK supplied the project with large-diameter double-eccentric butterfly valves from DN1000 to DN1500.

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**Chief editor**  
Anne-Mette Kjær – amk@avk.dk  
Michael Ramlau-Hansen – mrh@avk.dk

**Content**  
Helle A. Larsen – hellar@avk.dk  
Louise N. S. Jensen – lounym@avk.dk  
Lærke Kromann – laekro@avk.dk

**Frontpage picture**  
AVK Shanghai’s presence at both IE Expo 2026 in Shanghai and the 2026 Annual Conference & Technical Product Exhibition of the China Water Association in Shenzhen was a great experience. Read more on page 20.

# FROM BOOTH BUZZ TO BUSINESS AT IFAT 2026

DENVIARK

AVK's presence at IFAT 2026 in Munich sparked strong interest in both innovations and the broader portfolio. The 360 m<sup>2</sup> booth became a buzzing meeting point for new partnerships, project opportunities, and a shared focus on resilient water and wastewater solutions.

By Lene Mark,  
Head of Marketing, Continental Europe,  
AVK International A/S

Despite challenging political and economic conditions, the overall atmosphere remained positive and forward-looking. "Customers and partners were open, solution-oriented, and focused on long-term collaboration," says Daniel Wittoesch, Sales Director at AVK Armaturen GmbH.

We showcased both product news and the wider AVK portfolio – from the new EQUILO for active pressure control and VIDI Hydrant Guard for real-time monitoring to several additional launches and upgrades across the group – highlighting the breadth of expertise and innovation within AVK. As Francisco Viskinge, Director Sales & Product Management at AVK International, notes: "Once again IFAT was a brilliant opportunity to show AVK's strengths to both existing and future customers – and to get informed about upcoming projects."

A big thank you to everyone across AVK who helped make it happen: our highly engaged booth team, the AVK companies contributing products and know-how, the sales teams inviting customers to stop by, and the marketing teams at AVK Armaturen and AVK International for their committed efforts behind a strong Group presence.



## FACTS

### AVK at IFAT 2026

- AVK had a 360 m<sup>2</sup> booth divided in a product display area and a 60-seat catering area
- CYL, InterApp Valcom, Wouter Witzel, Fusion, Hydrocos, Rewag, AC.MO, and Smart Water were represented along with products from AVK Plastics, AVK International, AVK Armaturen, AVK Anhui, and AVK Polska
- IFAT facts: 142,000 visitors from 160 countries, record-high 3,400 exhibitors from 60 countries, 300,000 m<sup>2</sup> exhibition area in 18 halls + outside



# FLONIDAN SECURES LANDMARK TENDER FOR LARGE-SCALE DEPLOYMENT OF ULTRASONIC GAS METERS IN THE NETHERLANDS

### Deep roots in the Dutch market

FLONIDAN has played a key role in successive Dutch smart meter rollouts, from DSMR2 through DSMR6, either directly or through partners. With this contract, the company further solidifies its leadership in delivering secure, efficient, and sustainable energy solutions for millions of Dutch households and industrial customers.

FLONIDAN, a leading provider of smart gas metering solutions, is proud to announce it has been awarded a major contract to supply potentially millions of next-generation gas meters to the Dutch Distribution System Operators (DSOs) Netbeheer Nederland. The agreement marks the largest contract in FLONIDAN's history, reinforcing its position as a long-standing and trusted partner in the Netherlands' energy transition.

*By Sten Andersen,  
General Manager,  
Flonidan A/S*

**Products supplied to the project:**  
The contract includes two lots, covering the full range of meter sizes from **G4 up to G25**:

**Lot 1:** G4/6 SciFlo gas meters for residential applications.

**Lot 2:** G10/16/25 SciFlo gas meters, marking FLONIDAN's first "industrial" ultrasonic gas meters.

FLONIDAN emerged as the number one supplier in the tender, securing over 60% of the residential meters and the full industrial meter range, highlighting the company's technical excellence and trusted reputation.

The award is part of the DSMR6 G-meter tender, a joint initiative by Dutch DSOs aimed at revolutionising energy metering infrastructure. Over the next ten years, FLONIDAN will deliver energy-efficient smart gas meters that meet both residential and industrial needs.

*"This is more than a commercial milestone, it is a shared commitment to a smarter, more sustainable energy future," explains Yasin Simsek, Sales Development Manager at FLONIDAN. "We are proud to deepen our 20-year partnership with Dutch DSOs and to support their forward-thinking digitalisation goals."*

### Supporting a FAIR and sustainable future

Beyond technical performance, FLONIDAN's proposal was distinguished by its alignment with DSOs' vision for fully FAIR metering by 2050, covering CO<sub>2</sub> neutrality additionally to the current requirements for circularity, conflict-free materials, ethical labour, transparency, and the elimination of hazardous substances. FLONIDAN's smart meters are designed for longevity, powered by ultra-efficient D-cell batteries lasting up to 25 years, with minimal material and energy footprints.

### NextGen metering architecture: Built for a digital future

FLONIDAN's meters also support the NextGen metering architecture, enabling seamless communication via a modular gateway. This ensures flexibility, upgradeability, and interoperability, essential for a fully digital, IP-based infrastructure.

*"Our smart meters are not only products, they are part of a digital ecosystem designed to evolve with tomorrow's energy networks," said Sten Anderson, CEO of FLONIDAN. "We are proud to support the DSOs in building a more connected, responsible, and circular energy system."*

Richard van Harten Contract Manager for Alliander commented: *"This tender is a key step in modernising the Netherlands' energy measurement system. The award to FLONIDAN reflects their long-term dedication to innovation, fair supply chain practices, and reliable product performance."*

# DESIGN, FABRICATION, AND INSTALLATION OF SUBMERGE DISCHARGE VALVES UNITED KINGDOM

Southern Water's Bewl Reservoir

By Harriet Watson,  
Marketing Executive,  
Glenfield Invicta



Glenfield Invicta has specified, designed, fabricated, and installed three series 856 submerged discharge valves at Southern Water's Bewl Reservoir.

Each valve weighs 21 tonnes, measures 8.25 m in length, and has an inlet bore of 1600 mm and an outlet bore of 1400 mm. They are the largest submerged discharge valves supplied by Glenfield Invicta since the early 1960s, some 60 years ago.

Completed in 1975, Bewl Reservoir is the largest body of inland water in Southeast England.

## Project scope

Southern Water is investing over £30m to improve reservoir management at Bewl. In particular, it has installed three hydraulic syphons in the 1800 m long dam wall to facilitate a more rapid, more controlled drawdown of reservoir water levels.

The syphons feed water through pipes located on the 20 m high reservoir wall down to the three submerged discharge valves sited at the base of the wall. The role of the valves, submerged in an open discharge chamber, is to dissipate the kinetic energy in the water enabling the water to flow gently over the walls of the chamber into downstream watercourses.

Glenfield Invicta was asked by Southern Water to specify, design, build and install the three submerged discharge valves.

## Specification and design

With drawdown projects such as that at Bewl Reservoir, it is hugely beneficial for Glenfield Invicta's engineers to be involved from the initial stages. Early engagement optimises the engineers' ability to review all valve options and develop an optimal solution.

For Bewl Reservoir, the consulting engineers provided Glenfield Invicta with the flow and pressure conditions under which the selected valves would be expected to operate.

Detailed consideration was also given as to how the submerged discharge valves would be operated. Given the requirement for the valves to open and close quickly in order to deliver a rapid and effective drawdown capability, linear hydraulic actuation was specified rather than the more standard rotational electrical actuation.

Although the Series 856 submerged discharge valve is based on fundamental hydraulic and mechanical principles, the overall length and the port geometry of the specified valves are unique for each application as they have to meet a particular set of project-specific system parameters. Furthermore, in the case of Bewl, the sheer scale of the valves meant that every

significant component had to be individually designed and manufactured.

## Build and test

The valves were designed and assembled at Glenfield Invicta's workshops in Kilmarnock. The majority of the valve body consists of a series of ductile iron castings and pipe sections. The valve outlet was fabricated in aluminium bronze. The hydraulic cylinder that controls flow rates through the valve is stainless steel.

All materials and coatings used in the build of the valves are WRAS approved.

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*This was a particularly fascinating project to be involved with. The sheer scale of the valves meant that extensive planning was required to ensure every step of the project ran smoothly. There does currently seem to be a trend towards using submerged discharge valves on reservoir drawdown projects as Glenfield Invicta will shortly be supplying a further two Series 856 valves to another UK water company.*

Jim McAllister, Supply Chain Manager

||

*We have been manufacturing this type of valve for over 60 years. The first ones we ever produced were for a local project at a Scottish reservoir, and we have recently refurbished those same valves. In terms of durability, these valves last several decades before requiring service, maintenance, or overhaul. As a mechanical engineer, I am passionate about ensuring our products are manufactured to the highest quality standards. That commitment underpins the core principles of Glenfield Invicta and the AVK Group - delivering high-quality products that provide long-term reliability and excellent performance throughout their service life.*

Greg Morris, Business Development Manager for Dams, Reservoir & Hydropower

With the client in attendance, the valves were hydraulically tested in the workshop using a portable hydraulic unit. With each valve measuring 8.25 m in height, the hydraulic test had to be undertaken with the valve on its side.

Mobile cranes were brought in to lift the valve sections on to the low loader for transport to site. Great care was taken to ensure the valve was located in the optimal position to distribute load over the five axles of the transporter during transit.

# DUPLEX GATE VALVE IS RELEASED PRODUCT



The valve is designed for demanding applications and corrosive environments where standard solutions are not sufficient.

*By Lene Mark,  
Head of Marketing, Continental Europe,  
AVK International A/S*

The gate valve is made of duplex stainless steel EN 1.4470/EN 1.4462 and is particularly well suited for:

- Wastewater and industrial effluents
- Corrosive or aggressive media
- Coastal and marine environments with high salt exposure
- Industrial process systems

The design combines high mechanical strength with excellent corrosion resistance, and the valve offers a long service life and operational reliability, even under challenging conditions.

It is available with ISO top flange in DN40-200, PN10/16. PN25 and OS&Y variants are under development.

# WEBINAR: SAVE WATER, MANPOWER, AND MONEY DENMARK

*By Charlotte Brønsted Rasmussen,  
Content Specialist,  
AVK International A/S*



The full webinar recording is available online. Scan or click to watch it.

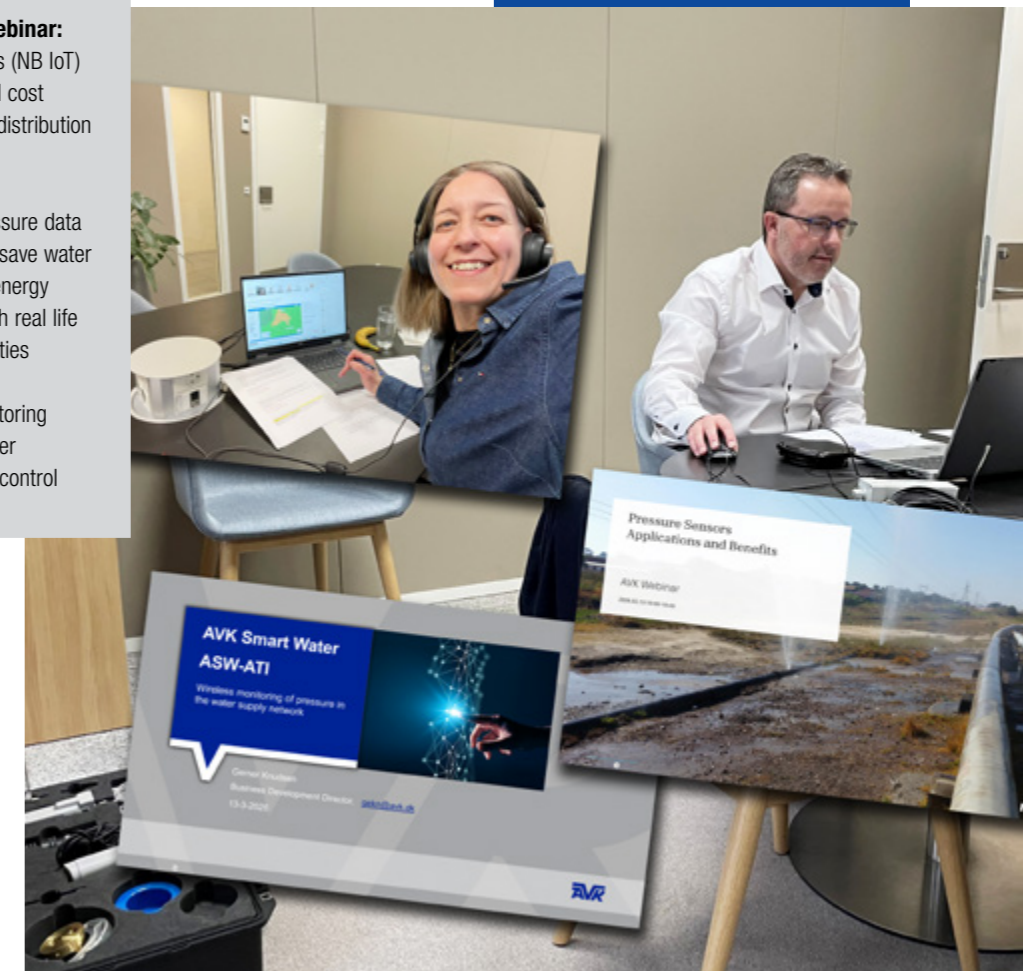
## FACT

### Key topics covered in the webinar:

- Introduction to AVK's wireless (NB IoT) pressure sensors for fast and cost efficient installation in water distribution networks
- How access to real-time pressure data can help optimise operation, save water and manpower, and reduce energy consumption – illustrated with real life cases from Danish water utilities
- How real-time pressure monitoring strengthens non revenue water management and water loss control

Did you miss our recent webinar on how to optimise operation by introducing real-time pressure monitoring in water distribution networks?

In the webinar, Klavs Høgh from NIRAS and Gerner Knudsen from AVK Smart Water share their know-how on pressure sensors and the application of real-time data collection in water distribution networks. Through real-life cases from Danish water utilities, they demonstrate how real-time pressure monitoring supports efficient network operation and how utilities can gain access to real-time pressure data.



Behind the scenes: Webinar speaker Gerner Knudsen (right), Business Development Director, AVK Smart Water, and host Charlotte Rasmussen (left), Content Specialist, AVK International, during the live webinar session.

# TAILORED IN BLACK: AVK SERIES 764 ECCENTRIC PLUG VALVE FOR SLUDGE DUTY AT SIU HO WAN STW

# HONG KONG

By Chester Leung,  
Operations Manager,  
AVK Hong Kong, Macau,  
Taiwan and Korea

## Project background

The Siu Ho Wan Sewage Treatment Works is a key regional chemically enhanced primary treatment works on North Lantau Island, serving Hong Kong International Airport, Tung Chung new town, and surrounding developments. Designed to handle over 180,000 m<sup>3</sup> of wastewater and serving 200,000 citizens' daily wastewater treatment requirements.

When wastewater arrives at the plant, it first passes through screens to remove large debris, then through grit chambers to settle out sand and small stones. The flow then moves to primary sedimentation tanks, where heavier solids settle as raw sludge.

The partially treated wastewater proceeds to secondary treatment, where microorganisms break down organic pollutants in aeration tanks. After secondary treatment, the wastewater

undergoes final sedimentation, and the settled solids become secondary sludge. The combined primary and secondary sludge, then enters the dewatering system, where belt filter presses, remove water and convert liquid sludge into semi-solid sludge cake for disposal or reuse.

## Application overview

Sludge is a harsh medium. It contains abrasive grit, fibrous materials, and corrosive gases like hydrogen sulphide.

For this demanding situation, AVK Hong Kong team recommended the series 764 Eccentric Plug Valve. The plug lifts off the seat during operation, eliminating rubbing and wear. There is no shaft through the bore, so fibrous materials cannot clog the valve. The plug is fully vulcanised with AVK's hydrocarbon resistant NBR rubber, which resists abrasion and rebounds to its original shape for long-term sealing. The seat is 95% pure nickel welded onto the cast body, able to withstand hydrogen sulphide corrosion. A triple lip seal and O-ring protect the stem from grit. The plug rotates on self-lubricating.

PTFE-coated bronze bearings, ensuring low torque even after long idle periods. AVK customised the valves to DSD's exact needs, including EN 1092 flanges, EN 558 Table 2 face-to-face dimensions, and Rotork IP67 gearboxes mounted on the standard ISO 5211 flange. While AVK's standard coating is blue RAL5017, AVK adjusted it to RAL9005 black – a tailored modification made specifically for instant sludge line identification.

## Product Features

The AVK series 764 Eccentric Plug Valve design is ideal for sludge application where abrasion, fibrous materials, and corrosive gases are present. The design has no shaft through the bore, so fibrous objects cannot clog the valve, a common failure point for traditional valves.

The 95% pure nickel seat is welded onto the cast body, resisting hydrogen sulphide corrosion. The NBR rubber plug rebounds after compression for long-term sealing. The plug rotates on self-lubricating, PTFE-coated bronze bearings, ensuring low torque even after long idle periods.

The V-type stem seal is adjustable, preventing leakage over the valve's lifetime. The ISO 5211 flange allows on-site mounting of the Rotork gearbox. While AVK's standard coating is blue RAL5017, the valves were finished in RAL9005 black per client request, allowing operators to visually distinguish sludge lines at a glance.

# TAILORED FOR HIGH SALINITY CONDITIONS: AVK DELIVERS CUSTOMISED SOLUTIONS FOR SILVER SANDS

# EGYPT

Supporting Egypt's development ambitions for first-class coastal destinations, AVK solutions play a vital role in forming the backbone of this infrastructure project, a 550-acre luxury development located between Almaza Bay and Sidi Heneish El Abd in Marsa Matruh.

By Anurima Roy  
Regional Marketing Manager,  
AVK Gulf

## Products supplied to the project

- 1966 x Gate Valves (02/20), (37/50) and (54/3334)
- 43 x Butterfly Valves (75)
- 14 x Check Valves (41/20), (41/36) and (641/01)
- 12 x Control Valves (S879 M100) and (S879 M600)
- 10 x Air Release Valves (CSA GOLIA)

Site Detail: Sidi Heneish – North Coast, Egypt.



The project brings together luxury villas, hospitality facilities, and retail spaces, supported by a fully integrated and complex infrastructure network designed to handle both seasonal peaks and year-round operations for its residents.

Given the project's scale and coastal environment, ensuring long-term infrastructure reliability made addressing water quality and corrosion challenges a key driver.

## Solution for challenging coastal conditions

Coastal developments present unique operational challenges, particularly in water quality and corrosion risks. At Silver Sands, water analysis indicated Total Dissolved Solids (TDS) levels reaching up to 10,000 ppm, requiring valves with enhanced corrosion resistance suitable for harsh conditions and high-salinity water environment which meant correct material selection and stringent protection strategies.

Based on initial discussions and water analysis, the consultant, Active Brains Consulting Group (ABCG), requested all valves to be supplied by AVK as a sole vendor to ensure durability and long service life. Leveraging AVK's technical expertise, the solution included:

- Ductile iron valves designed for durability
- Specialised PPG internal and external coating systems
- Coatings capable of withstanding high TDS levels
- Internal components upgraded to high-grade stainless steel and bronze

This combination ensured enhanced corrosion resistance and long-term performance in demanding coastal conditions.

Execution was carried out through Redcon Construction and Sewedy Electric, with the AVK Egypt team actively supporting MEP subcontractors throughout the process, ensuring timely delivery aligned with construction schedules while providing continuous technical input for material selection, submittals, and approvals.

*"Our ability to deliver specialised coating solutions for extended valve life under high TDS conditions, combined with our proven track record, made us the preferred choice."* says Mohammed Hosny, Country Manager.

AVK supplied a wide range of valves for the infrastructure and building services systems, including potable water, irrigation, and wastewater networks.

## Building for the future

The Silver Sands project highlights AVK Egypt's capability to deliver tailored solutions for challenging environmental conditions while maintaining alignment with high-end development standards.

Beyond technical delivery, the project reflects the value of early-stage collaboration, smooth coordination across AVK companies and its supply chain, and aligned execution across all stakeholders.

Looking ahead, AVK continues to support Egypt's development goals by delivering solutions that meet customer needs and are built to last.





# WHAT DO 6,000 STEPS AND BUTTERFLY VALVES HAVE IN COMMON?

# SAUDI ARABIA

The connection is much closer than it seems at first glance. Every green park and every shaded pedestrian zone in Riyadh depends on infrastructure hidden from view. A reliable water supply network is one of the key factors allowing ambitious plans like Green Riyadh to become a reality.

*By Alyona Dolgikh,  
Marketing Executive,  
AVK SVMC*

Imagine a morning in the capital where, instead of the usual heat, you are greeted by the cool breeze of millions of trees. In areas like Dahrat Namar or Al-Rimal, over 252 km of pedestrian routes has already been laid. The project sets an ambitious goal: to integrate movement into daily life, making the 6,000-step norm accessible and comfortable even in a desert climate.

#### **About Green Riyadh**

The Royal Commission for Riyadh City has launched the “Green Riyadh” program, one of the world’s largest urban afforestation initiatives. The program aims to plant more than 7.5 million trees across Riyadh by 2030 and increase green space from 1.5% to 9%, significantly enhancing the city’s quality of life.

Green Riyadh goes beyond landscaping. It is designed to reduce urban temperatures by up to 2°C and deliver a lasting improvement to the city’s ecological balance, supporting the ambitions of Saudi Vision 2030. However, sustaining this ecosystem over the long term depends on a reliable and continuous supply of water at a large scale – an often unseen but critical foundation of the city’s resilience.

To support this, the program is developing an extensive irrigation network spanning 1,350 km, with a daily capacity of 1.7 million m<sup>3</sup>. It also aims to transition irrigation entirely to treated water, increasing its use from 11% to 100%.

#### **The green heart of the desert: our contribution**

In partnership with Abdullah Ibrahim Al Sayegh & Sons Co. and under the technical guidance of ILF engineers, AVK supplied large-diameter double-eccentric butterfly valves from DN1000 to DN1500.

Why were this specific solution chosen for critical infrastructure of such scale?

- **Minimal wear:** Thanks to the double-eccentric design, the seal only comes into contact with the seat at the final moment of closure. This eliminates unnecessary friction and ensures decades of operation without heavy maintenance
- **Made in Saudi Arabia:** These valves are manufactured locally. This is our direct contribution to sustainable development and localisation within the framework of Vision 2030
- **Proven reliability:** Every unit underwent 100% third-party inspection before delivery. We verify every detail because the reliability of these systems directly impacts the success of the entire project

#### **The engineering aspect: why not a gate valve?**

A frequent question: why not use a gate valve for such applications? At diameters around DN1500, gate valves become extremely heavy, bulky, and slow to operate. Our series 756 double-eccentric butterfly valve provides the optimal balance between compact design, operational speed, and long-term efficiency. For our team, this project is more than just a supply contract. It is an opportunity to be part of the Kingdom’s massive transformation – because real change begins with reliable systems underground and the very first step on a park path.

# CALCULATE YOUR POTENTIAL SAVINGS FROM PRESSURE REDUCTION TOOL

Effective pressure management minimises the risk of pipe bursts, lowers energy consumption, and extends the lifetime of network infrastructure. By keeping pressure at optimal levels, utilities can significantly reduce water loss, helping to protect a valuable resource and support long-term environmental goals.

By Charlotte Brønsted Rasmussen,  
Content Specialist,  
AVK International A/S



## Pressure optimisation calculation tool

In collaboration with the leading engineering consultancy NIRAS, we have developed an interactive calculation tool to help estimate the potential cost and water savings from pressure reduction in the distribution network.

## Theme day on pressure management and water loss

The tool was developed in connection with a dedicated theme day on pressure management and monitoring of the distribution network. The event was hosted by AVK Danmark and gathered around 55 participants, primarily professionals from Danish water utilities. Throughout the day, the participants shared practical insights and real-world experience with leakage detection and pressure optimisation.



# AVK AT INTERSCHUTZ: THE WORLD'S LEADING TRADE FAIR FOR FIRE AND SAFETY SOLUTIONS

# DENMARK

By Lene Mark,  
Head of Marketing, Continental Europe,  
AVK International A/S

In June, we attended INTERSCHUTZ 2026 together with around 1,700 other exhibitors and 140,000 visitors from across the globe.

At the AVK booth, we welcomed guests from all over the world, from South Africa and Ivory Coast to Kazakhstan and Ukraine, Chile and Mexico, as well as from most European countries. We were also pleased to welcome a large delegation from the Danish Emergency Management Organisation.

We presented our complete range of UL/FM-approved products together with a selection of other AVK fire hydrants – and, not least, our new VIDI Hydrant Guards for series 84 and series 27 hydrants, which attracted significant interest. So did our new AVK fire socks!

Although the majority of visitors represented fire safety departments, we made quite a few interesting new contacts within our direct business. In addition, we had the pleasure of welcoming loyal customers and partners from across the globe.

We left INTERSCHUTZ 2026 with valuable insights, new opportunities, and many promising conversations that we look forward to developing further in close dialogue with customers and partners.

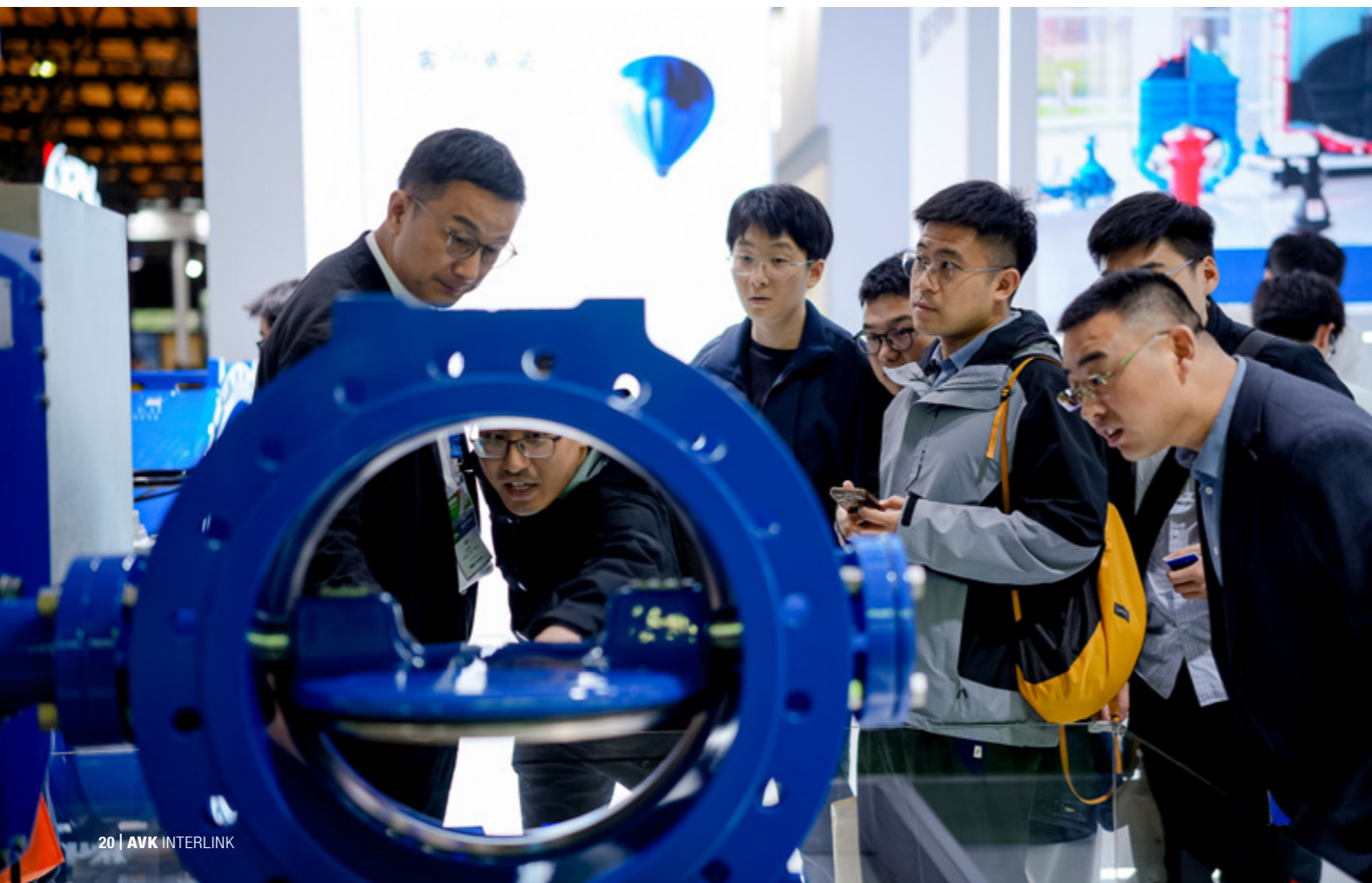


# SHOWCASING LOCAL INNOVATION AND GLOBAL LEADERSHIP AT CHINA'S 2026 FLAGSHIP WATER EVENTS

# CHINA

2026 marks the inaugural year of China's 15th Five-Year Plan, ushering the water and environmental protection sector into a new strategic era focused on stock upgrading, smart low-carbon transformation, and system-wide optimisation.

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



As a world-leading provider of premium valve solutions, AVK Shanghai completed a one-week dual exhibition across two cities, presenting at IE expo 2026 (Shanghai) and the 2026 Annual Conference & Technical Product Exhibition of China Water Association (Shenzhen). Aligning closely with core industry demands for water security, environmental remediation, and smart water infrastructure, AVK fully demonstrated its localised innovation capabilities and industry leadership.

**Attracting attention at the 27th IE Expo**  
From 13-15 April, the 27th IE expo was held at Shanghai New International Expo Centre (SNIEC). As Asia's most influential flagship environmental exhibition, it brought together more than 2,000 leading enterprises worldwide. AVK presented a 110 m<sup>2</sup> booth, highlighting integrated solutions covering water transmission, water treatment plant, wastewater treatment, industrial plant, and smart water solution to address full cycle water sector demands. During the exhibition, the booth attracted extensive

attention from industry experts and partners. AVK's energy-efficient, durable valve products and customised technical solutions were highly recognised and trusted by onsite visitors, laying a solid foundation for future collaboration.

**Presenting AVK's valve solutions at The Danish Water Alliance in China**  
Immediately following the Shanghai exhibition, from 16-18 April, AVK exhibited at the Denmark Pavilion as a core member of the Danish Water Alliance in China (DWAC), an initiative organised by the Royal Danish Consulate General. As a key annual gathering for water utility end users, the event enabled AVK to gain in-depth insights into prevailing trends including drinking water quality improvement, pipeline network upgrading, and digital empowerment. Focusing on end users' core needs, AVK delivered comprehensive valve solutions spanning product application to full lifecycle management. At the technical seminar themed "China-Denmark Water Technologies: New Approaches to Quality Improvement, Cost Reduction and Efficiency

Enhancement", Mr. Ken Yan, Marketing Director of AVK Shanghai, delivered a presentation on AVK's comprehensive valve solutions for water circulation systems. He elaborated on how AVK drives quality and efficiency improvements in water systems and supports high-quality water development under the 15th Five-Year Plan, with a focus on safety, resilience, low-carbon performance, and intelligence.

**Evaluation and conclusion: seamless execution and strong impact**  
From Shanghai to Shenzhen, from a flagship environmental expo to the national water industry annual conference, we concluded the back-to-back exhibitions with efficient collaboration, rapid response, and precise execution, achieving significant growth in both brand influence and industry penetration. Moving forward, AVK will continue to partner with industry peers to build a greener, more energy-efficient, smarter, and higher-performance water ecosystem.

# AVK SOLUTIONS SUPPORTING RENEWABLE ENERGY AT THE APERHAM BIOMETHANE PLANT

## SPAIN

AVK products play a key role in supporting renewable energy generation at the APERHAM biomethane facility. The plant converts manure and industrial waste into biomethane, contributing to a more sustainable energy system and advancing circular resource use.

*By Abigail Izquierdo Torres,  
Marketing Manager,  
AVK Válvulas, S.A.*



# PRESSURE MANAGEMENT WITH EQUILO

## ITALY

In the heart of Galliners (Girona), Spain, the APERHAM plant is turning agricultural and industrial waste into renewable energy. Each year, around 30,000 m<sup>3</sup> of manure and organic residues are processed with a clear goal: to produce biomethane and contribute to a more sustainable energy model.

The energy generated is already being used in service stations, with plans underway for future injection into the natural gas grid, reinforcing the role of biomethane as a key renewable fuel for the future.

Beyond production, the facility is designed with efficiency in mind. On-site energy self-consumption, supported by a 190 kVA engine, helps optimise operations and reduce environmental impact.

### Reliable flow control at the core of the process

To ensure smooth and secure operation across the different stages of the plant, APERHAM relies on robust valve solutions supplied by Gersal and manufactured by AVK.

### Products supplied to the project:

- 13 gate valves (series 06/84 in DN100, DN150 and DN200)
- 8 Orbinox guillotine valves DN150 with pneumatic actuation

Working under demanding conditions, these components play a key role in maintaining controlled and reliable flow throughout the process. Their automated operation also supports efficiency and operational safety in daily plant management.

### A contribution to a more sustainable future

By combining waste treatment with renewable energy production, the APERHAM facility demonstrates how industrial processes can be transformed into sustainable solutions.

The AVK valve solutions installed on site contribute to this transformation by ensuring precise flow control, high reliability, and long-term performance – all essential elements in the production of renewable biomethane.



Advanced pressure management has become a strategic lever for delivering high performance water services while significantly reducing losses. Accurate, real time control of pressure and flow – both locally at critical regulation points and remotely across the entire network – enables utilities to maximise system efficiency and enhance network performance. Thanks to EQUILO, a system designed to offer maximum precision and reliability, this is possible.

*By Irene Schiavon,  
Digital Content Creator,  
AC.MO S.r.l.*

The controller acquires real-time pressure readings upstream and downstream of the valve and, if a flow meter is present, flow rate data as well. All data is transmitted to the Cloud platform, where it is processed to ensure precise pressure control. EQUILO enables the setting of pressure setpoints based on time, flow rate, or a flexible combination of both. This versatility helps reduce consumption and leakage levels while stabilising the network. The result is an optimised network with reduced losses and improved operational efficiency. By fully controlling network pressure and continuously adapting to demand fluctuations, the solution makes a tangible contribution to reducing non-revenue water (NRW), whilst protecting the infrastructure from costly outages.

### Case study: Remote monitoring and pressure optimisation in the Lucca Water District background and objective

GEAL S.p.A. is a utility company based in Italy and responsible for managing the integrated water service in the Municipality of Lucca (Tuscany).

The company needed to upgrade an existing installation within a specific water district (DMA) without completely overhauling it, whilst introducing a greater level of control. The main objective of the project was to enable remote control of the pressure-reducing valve (PRV), making it possible to adjust the pressure set





#### FACTS

##### EQUILO system consists of:

- AVK diaphragm control valve series 879 with 2-way motorised pressure reducing pilot, to ensure precise pressure regulation
- Smart PRV Controller, an ultra-low-power electronic controller with integrated communication
- No. 2 integrated electronic pressure sensors
- Plug & Play battery pack
- "VIDI" Cloud platform with related data connection APIs
- NB-IoT DATA Subscription

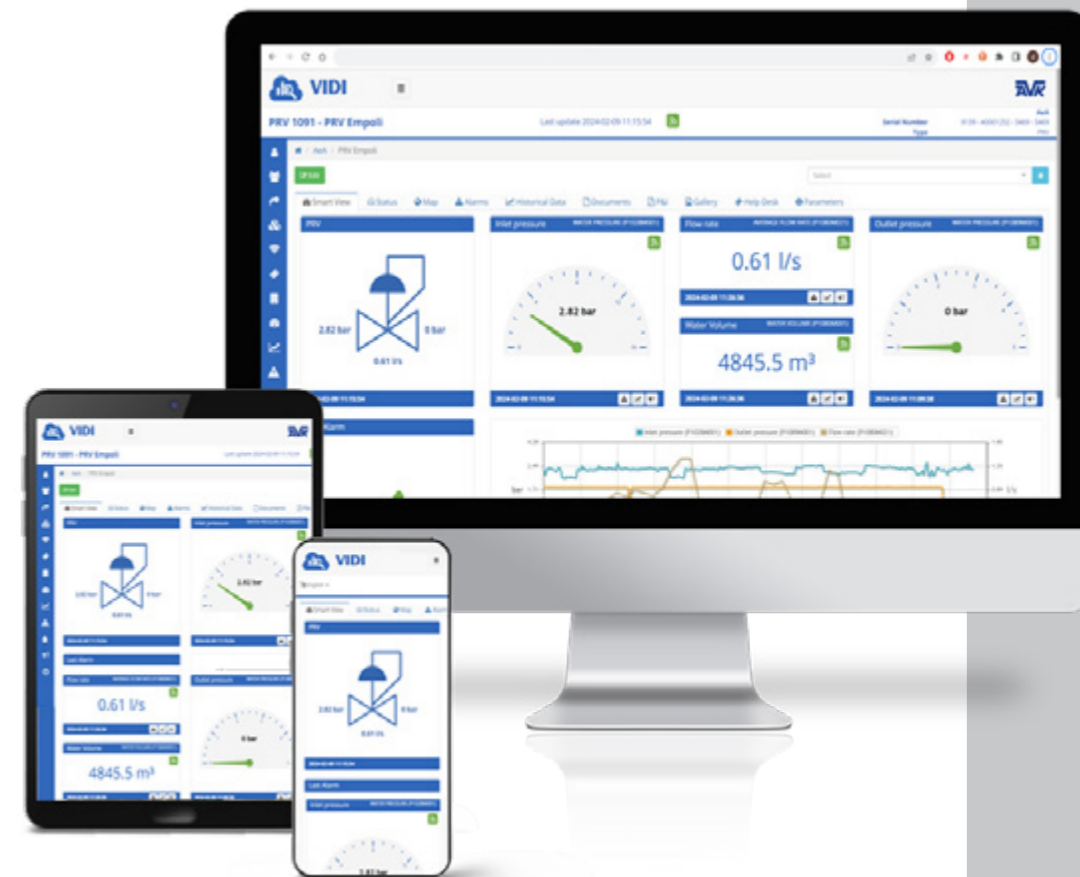
##### Some data from Lucca Water Company:

Before installing EQUILO (12-month records)

- Set pressure during the day: 3.6 bar
- Set pressure during the night: 3.0 bar
- 14 repairs for pipe breaks caused by pressure

After installing EQUILO (12-month records)

- Set pressure during the day: weekdays: 3.0 bar
- Set pressure during the day: weekends: 3.4 bar
- Set pressure during the night: all week: 2.4 bar
- 0 repairs for pipe breaks caused by pressure



point according to flexible rules based on time and/or flow rate parameters.

##### Implemented solution

The EQUILO system was implemented by replacing the existing PRV, which was fitted with a stand-alone night & day controller and 2 pilots with a fixed regulated pressure from 10.00 p.m. to 06.00 a.m., with the AVK Diaphragm Automatic Control Valve series 879, already equipped with an ultra-low power motorised pressure reducing pilot and upstream and downstream electronic pressure sensors.

The installation of the system was then completed with the addition and wiring of the controller, the battery pack, and connection to the flow meter.

After just 2 hours the new EQUILO system was installed and made operational with the VIDI Cloud Platform and connected via special API to existing SCADA system.

##### Results and benefits

The adoption of this new system is delivering, and will continue to deliver, significant long-term benefits to the water district, including:

- Remote control of the valve, enabling faster and more efficient system management
- Reduced need for on-site interventions for calibration and settings
- High operational flexibility, thanks to the ability to configure custom adjustments by defining timing and modulation values, as well as controls based on "time", "flow rate", or a flexible combination of both
- Precise and continuous monitoring of the DMA
- Reduction of network losses
- Less water released into the network without creating disruptions to users
- Reduction of electricity consumption in pumping stations
- Reduction of maintenance interventions
- Optimised pressure in every situation resulting in economic and performance advantages

# HIGH-QUALITY VALVES ENSURE CONTINUITY AT NIJVERDAL PUMPING STATION

## THE NETHERLANDS

At the Nijverdal drinking water abstraction site in the Netherlands, approximately 5.7 million m<sup>3</sup> of groundwater is processed annually into drinking water for the Twente region. To guarantee the operational reliability of this crucial installation for the coming decades, AVK Nederland supplied an extensive package of Wouter Witzel butterfly valves for the complete upgrade of the facility.

By Stefan Munk,  
Marketing Coordinator,  
AVK Nederland BV

### Preventive replacement at a vital link

Overijssel sources its drinking water from 23 groundwater areas. Nijverdal Pumping Station is a key hub in this water supply, with a flow rate of approximately 1,000 m<sup>3</sup> per hour. The growing water demand in Twente and the planned construction of tens of thousands of new homes by 2030 require the installation to remain continuously operational and reliable.

The existing butterfly valves in the filter hall, after 23 years of reliable service with a high number of operation cycles per year, are due for replacement. Because the plant's filters require periodic maintenance, this is strategically the ideal moment to renew the valves as well. Project manager Martin Balm opted for a proactive approach: replacing them before wear leads to potential failures.

### Proven quality of Wouter Witzel

The choice for the new valves is based on the excellent performance of the previous generation. The Wouter Witzel valves that have



been in operation since 2003 have performed flawlessly throughout their entire service life. From a perspective of sustainability and reliability, the EVFS-i series has once again been selected.

An interesting detail: just like the drinking water itself, the butterfly valves also originate from Twente. Wouter Witzel has been an established name for over 50 years and is based in Losser, near Enschede, where craftsmanship and reliability are central.

### Products supplied to the project:

- 69 x butterfly valve EVFS-i DN150
- 12 x butterfly valve EVFS-i DN100
- 4 x butterfly valve EVFS-i DN300

All valves are equipped with a bare shaft and were supplied in the "Vitens colour" RAL7001. The EVFS-i butterfly valves from Wouter Witzel are designed for maximum reliability and a long service life in drinking water applications. One of the distinguishing features is the vulcanised rubber lining, which prevents corrosion beneath the lining and contributes to low operating torques. In combination with the well-engineered design and high-quality material selection, this results in a durable, low-maintenance and reliable solution.

### Tailored logistics and installation

The materials have now been delivered on site and installation is in full progress. Given the critical nature of the pumping station, the work is being carried out in phases. In each session, the valves of three filters are replaced simultaneously, allowing the remaining filters to continue supplying drinking water to the reservoirs in Nijverdal, Raalte, and Borne.

Thanks to the close cooperation between AVK and the project management on site, deliveries align seamlessly with the tight installation schedule. This ensures that Nijverdal Pumping Station is once again equipped with a technically high-quality core that will guarantee a reliable water flow for the next 25 to 30 years.

# SUCCESSFUL PRESSURISED WASTEWATER SYSTEM PROJECTS

## CZECH REPUBLIC

This year, we are carrying out two major projects in the field of pressure wastewater systems in the Moravia region, with a total value of 200,000 EUR. These projects represent not only a significant business success but, above all, a consolidation of our long-term and systematic work with all key partners involved in the design and construction of water management infrastructure.

*By Eva Dabolkova,  
Area sales representative,  
AVK VOD-KA a.s.*



### Proven performance and strong partnerships drive AVK project success

Winning the contract was the result of several years of targeted work that began as early as the design phase. Cooperation with the design office, which has long trusted AVK's solutions and the quality of our products, played a crucial role. Thanks to repeated expert presentations and technical consultations, we were able to demonstrate the practical benefits of our solutions. The design team was particularly impressed by the NBR rubber-lined gate valve option for house connections, which they now systematically include in pressure wastewater projects.

Equally important were the negotiations with the investors, namely the mayors of both

municipalities. At this stage, we relied primarily on specific references from previously completed projects where AVK valves were used. It was precisely these positive practical experiences, the reliability of the solutions, and the emphasis on long service life that played a key role in the decision to select a supplier. Another key factor was the support of the operator, a water utility company that has had long-standing positive experience with AVK products and trust in their quality. Its positive stance and recommendation significantly contributed to the final decision to use AVK materials in both projects.

### Aligning investor, designer, and operator

These contracts are a prime example of how important coordination and cooperation among all three key parties – the investor, the design

firm, and the operator – is. This forms the foundation for success in both securing and implementing water management projects. Systematic work with all these partners, supported by a high-quality product and strong references, is the path to long-term sustainable business results. The implementation of these projects thus confirms that trust, expertise, and long-term relationships are key in our industry. At the same time, it demonstrates that AVK's solutions have a firm place not only in design preparation but also in the actual implementation of modern water management structures.

### Products supplied to the projects:

- AVK gate valves series 36, 06/84, 53/30+53/35
- Products from the Fusion brand



The images are sourced from previous pressure wastewater systems projects.

**AVK Holding A/S**

Søndergade 33  
8464 Galten  
Denmark

Tel.: +45 8754 2100  
Fax.: +45 8754 2120  
[www.avkvalves.com](http://www.avkvalves.com)

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