



**EXPECT
STORIES FROM THE
AVK WORLD**



RETHINKING WATER: WHY SMARTER INFRASTRUCTURE MUST REPLACE EVAPORATED POTENTIAL

Recently, I drove past a traditional power plant, probably fired with oil or coal. Again, this got me thinking about water, about its scarcity as a resource.

Of the total amount of water on this planet, only 1% of our freshwater supply is available as drinking water. If you divide this one percent into how it is consumed, agriculture and food production take about 70%, industry and energy production 20%. This leaves only 10% of the 1% for us humans as drinking water.

By looking at the enormous amounts of evaporated cooling water that rises from the five cooling towers at the power plant, I think it puts things into perspective. This water will be gone for the next hundred years before it returns to the earth as rain. Is this really necessary? Couldn't we just as well keep it "on the ground" and make it available as drinking water, when so many are in need of safe drinking water?

Also, the mere fact that a conventional power plant uses such huge amounts of freshwater for cooling (if not located in a coastal area) speaks in favor of the transition toward renewable energy – but that is, of course, a different discussion. The International Energy Agency has calculated that if the entire world's water infrastructure is made energy neutral, it will save the planet 650 TWh of energy, which is equivalent to all coal-fired power plants in Europe.

The power plant I passed is located in the eastern part of Europe in a country with a water infrastructure in rather poor condition and which critically needs renovation. In one of the cities, I visited their water supply facilities to discuss a non-revenue water project and their future dream scenario: an energy-neutral water infrastructure. When you talk about it, it sounds easy, but is not that simple to complete: renovate the distribution network, and produce your own energy at the treatment plant. But where to start, and then what? The most logical thing is to start by closing off all gaps in the distribution network, thereby reducing the heavy water waste, which in many cases is as high as 30-40%. This also has a beneficial effect on the electricity bill, because you no longer have to pump all that wasted water for no purpose. Finally, it makes sense to monitor the distribution network, to make sure that any gaps are located and fixed.

The good news is that there is a lot of digital know-how and available solutions already, including from AVK's side. You can read more about that in this edition of the magazine.

Happy reading!
Michael Ramlau-Hansen

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Frontpage picture

A sneak peek into the Mega-Project,
Ninghai Pumped Storage Power Station.
Read more on page 14.



This year's sustainability report, which outlines our continued commitment to responsible business practices, has now been released.

An extraordinary engineering achievement at the end of the Victorian era, the Talla Dam and Talla Aqueduct were constructed to supply water to Edinburgh, Scotland.



The Veemarkt wastewater pumping station has been renewed with gate valves and knife gate valves from AVK.

CONTENT

- 4 Another year with focus on sustainable development
- 5 ANNUAL REPORT: AVK delivers solid organic growth and improved earnings
- 6 Celebrating 120 years of operation at the Talla Dam
- 8 InterApp butterfly valves installed in key production lines
- 10 AVK valves in renovated wastewater pumping station
- 12 Acquisition of a manufacturing site for triple offset valves
- 13 Combi-cross now also available with PE pipe ends
- 14 Supporting the national energy transition in large-scale pumped storage project
- 17 Optimising distribution networks through pressure data
- 18 Ulefos and furnes join forces in new partnership
- 20 Water infrastructure in practice: From strategic networks to public spaces
- 22 Supporting education and training of the local water sector
- 24 Gate valves refurbished after years-long inactivity, now back in operation
- 26 AVK Malaysia dominates Rasau Phase 1 with three major package wins
- 27 Product news: Triple offset valves, series 985
- 28 Repico® STFL couplings for future-proof wastewater system
- 30 Protecting network installations and downstream piping

ANOTHER YEAR WITH FOCUS ON SUSTAINABLE DEVELOPMENT

GLOBAL

We are pleased to present this year's sustainability report, which outlines our continued commitment to responsible business practices in a year marked by both complexity and opportunity.



Press release by AVK Holding

Global economic uncertainty, geopolitical tensions, inflationary pressures, and evolving regulatory landscapes have all influenced our operations and supply chains. At the same time, the growing urgency to address climate and environmental challenges has led to new opportunities for innovation and long-term value creation. In response, AVK has made strategic investments to strengthen local production and enhance supply chain resilience.

As part of our ongoing efforts to reduce our environmental impact, we have taken several important steps last year. We have initiated the process of phasing out lead and PFAS in our products, increased the use of recycled materials, and all AVK-owned companies in Denmark have fully transitioned to renewable energy.

At the same time, we have worked to improve the quality of our environmental data and calculation methods, providing a more accurate basis for understanding our carbon footprint. While this has not necessarily led to reductions, it strengthens our foundation for future action. That said, we have seen a reduction in both Scope 1 and 2 emissions, and we are proud

of the efforts across the AVK Group that have made this possible.

We are proud to share that in 2024/25, 52% of our total electricity consumption came from renewable sources, a strong result made possible through dedicated investments and the collective efforts of our companies across the AVK Group.

“Our ESG progress is the result of strong joint efforts across the AVK Group. Teams around the world have reduced our environmental impact, strengthened our data, and embedded responsible practices into operations. In 2024/25, this collective commitment also enabled significant progress in our transition to renewable energy, contributing to a more robust, efficient, and sustainable AVK.”

- Bo Johansen, COO, AVK.

We increased the number of Environmental Product Declarations from 15 to 26, implemented our AVK Group Code of Conduct for our employees, revised our Supplier Code of Conduct, and increased the number of supplier audits. These initiatives reflect our commitment to transparency, accountability, and continuous improvement throughout our value chain.

Looking ahead, we will continue to advance our sustainability agenda through targeted actions in climate, circular production, and responsible business conduct. We will develop a climate transition plan, increase the use of renewable energy, reduce gas consumption, and further implement ISO 50001. Likewise, we will further expand the use of recycled materials, strengthen water management in high-risk areas, and improve Scope 3 data.

AVK operates in sectors that are central to sustainable development. In recent years, the importance of managing drinking water and wastewater has gained increased attention – not only for its impact on health and quality of life, but also for its role in energy efficiency and climate resilience.



Scan/click here to read the full report

ANNUAL REPORT: AVK DELIVERS SOLID ORGANIC GROWTH AND IMPROVED EARNINGS

GLOBAL

With a turnover of DKK 9.4 billion and a net profit of DKK 620.6 million AVK improved earnings significantly in the financial year.

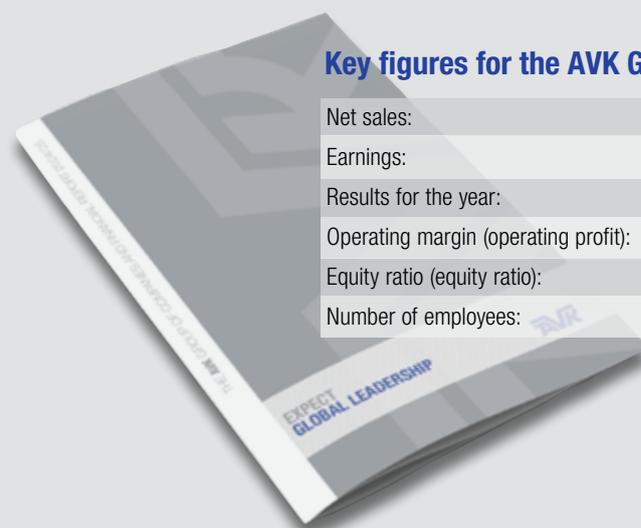
Press release by AVK Holding

Revenue increased by 4.1% from DKK 9.0 billion to DKK 9.4 billion and formed the basis for a net profit of DKK 620.6 million, corresponding to an increase of no less than 23.8% compared to the previous year. At the same time, the operating margin increased from 9.7% to 10.6%. The Group expects continued growth and improved results in 2025/26 with a focus on, among other things, automation, green transition, and continued market development.

"Despite continued slowdown in the economy in several key markets, AVK manages to deliver a satisfactory result. This reflects a solid business model with a broad geographical presence and strong positions across market segments. This strength is reinforced by AVK's continuous development and expansion of the product range globally," - Lars Kudsk, CFO of AVK.

Positive development in all fields

Among the factors that have influenced AVK's performance are a positive development in smart irrigation solutions in Italy, water supply and desalination projects in the Middle East, and general growth in the markets in India and Southeast Asia. In addition, the Group's continued focus on operational and process optimisation, and slightly falling raw material



Key figures for the AVK Group 2024/2025

Net sales:	9,393,186 dkk
Earnings:	993,109 dkk
Results for the year:	620,580 dkk
Operating margin (operating profit):	10.6%
Equity ratio (equity ratio):	53.4%
Number of employees:	5,571

prices have had a positive effect. Both of AVK's business units made positive contributions to the result. AVK Water Solutions achieved growth of 6.8%, partly driven by an increased share from the project markets, but also through growth in several markets. The important Chinese market remained subdued, as expected. AVK Advanced Manufacturing realised a growth of 10.6%, primarily due to strong sales of rubber components, components for the wind turbine industry, and pallets based on recycled plastic.

Looking ahead on the coming year

2025/26 will be characterised by acquisitions and joint ventures. As you will be able to read more about in this magazine, there has already been a significant acquisition and an important

joint venture within the past few months, clearly setting the stage for the AVK Group's coming year.

"AVK has a clear strategic focus on developing the Group through both organic growth and targeted acquisitions and joint ventures. This allows us to strengthen our market positions, exploit industrial synergies, and create a more robust foundation for future growth," says Niels Aage Kjær.



Scan/click here to read the full report

CELEBRATING 120 YEARS OF OPERATION AT THE TALLA DAM

UNITED KINGDOM

The 120-year celebration of the Talla Dam also underpins Glenfield Invicta's pivotal role in the construction at the start of the 20th century.



By John Batty,
Founder at Bluejohn Marketing

&
Harriet Watson,
Marketing Executive,
Glenfield Invicta

On 9 December 2025, Glenfield Invicta was invited by Scottish Water to participate in the events marking the 120th anniversary of the opening of the Talla Dam. An extraordinary engineering achievement at the end of the Victorian era, the Talla Dam and Talla Aqueduct were constructed to supply water to Edinburgh, Scotland's capital city.

Water from the Talla Dam is fed to Edinburgh via the 56 km-long gravity-fed Talla Aqueduct which has a 1 in 4,000 incline. The aqueduct design includes inverted cast iron siphon pipelines to cross the intervening valleys, with automatic safety valves to shut off flow in the case of a pipe burst.

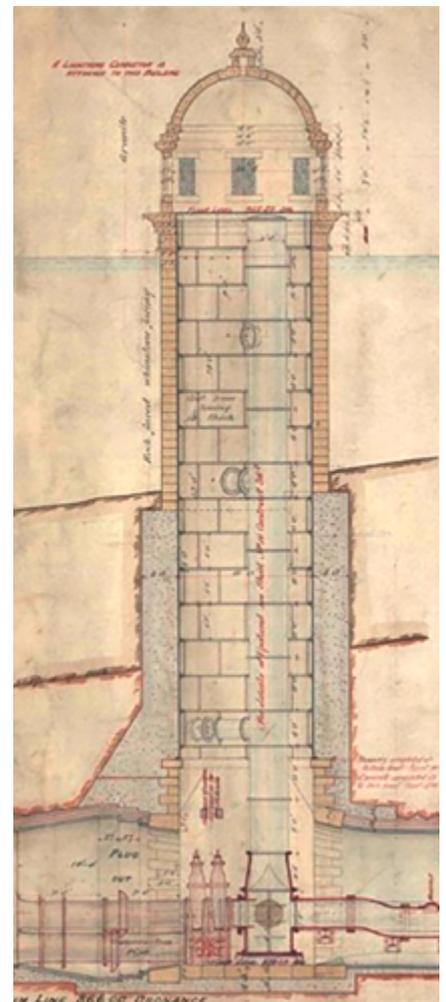
The Talla Dam, an earthen embankment dam with a clay core, is 24 m high and 320 m long.

Glenfield & Kennedy's contractual role

Glenfield Invicta, then Glenfield & Kennedy, successfully bid for Contract 36, one of fifty contracts let by the Edinburgh and District Water Trustees. Contract 36 required Glenfield & Kennedy to construct the valve tower and access bridge, supply and install the valves and upstand pipework in the tower, supply all hand-operated and hydraulic apparatus for opening and closing the valves, as well as supplying the automatic safety valves and sluices on the aqueduct. Except for the construction works on the tower and bridge, Talla Dam remains typical of the type of project that Glenfield Invicta continues to work on to this day.

Valve design and operation

Within the control tower, there are three different gate valves: 24" (61cm) inlet valves; a 36" (91cm) compensatory valve; and 36" (91cm) intake valves at the bottom of the tower. The valves are controlled using actuators, referred to at the time as 'hydraulic operating cylinders', linked to the valves using metal bars known as ling (extension) spindles. The spindles transfer the rotational force from the actuators to the valves. The position of the valve gate is shown by an 'indicator hood' with the indicator driven off an extension of the piston rod.





Longevity, maintenance, and modernisation

The valves have required minimal maintenance over the years and are still operating effectively today. Unsurprisingly, after 120 years of operation, Scottish Water is considering removing the ‘hydraulic operating cylinders’ and replacing them with electric actuators.

Archival records and heritage expertise

Sadly, Glenfield Invicta doesn't have the original Talla Dam construction drawings in its extensive archive. Drawing records ‘only’ go back to 1907, two years after the Talla Dam was completed. However, drawings in the archive are frequently referenced when Glenfield Invicta is asked to refurbish legacy valves it previously supplied to projects around the world.

Refurbishment, sustainability, and circular economy

On certain projects, refurbishing historic legacy valves provides an effective technical economic and environmentally attractive option. From a technical perspective, refurbishing existing valves means the system’s balance and functionality – e.g. pipe network - remains as originally designed. Economically, valve refurbishment has the potential to deliver time and cost savings for a customer. Valve

refurbishment, sometimes referred to as valve remanufacturing, also embodies the key circular economy principles of minimising waste, and ‘circulating’ products and materials to ensure their continued use.

Glenfield Invicta looks forward to being invited to the 200th anniversary of the opening of the Talla Dam in 2105.



INTERAPP BUTTERFLY VALVES INSTALLED IN KEY PRODUCTION LINES

KOREA

Due to long-term considerations, Bianca valves from InterApp have now become part of a critical production line at the POSCO Gwangyang Works.

*By Stig T. Bondrup
General Manager,
AVK Hong Kong, Macau, Taiwan
and Korea*

Project background

The 1 Electro-Galvanizing Line (EGL) at POSCO Gwangyang Works is a critical production line for automotive-grade steel sheets, where operational stability and equipment reliability directly affect final product quality.

Previously, butterfly valves from peers were installed and operated on this line. As part of a phased facility improvement strategy, specific valves were prioritised for replacement.

The existing valves were plastic (Polyethylene) valves, which had been installed during a past facility improvement project conducted under a lowest-bid contractor selection system.

Intermittent leakage was observed in the existing valves, where even small leaks posed long-term risks of corrosion and increased maintenance in the electrolytic cell area. Although plastic valves may offer short-term cost advantages, they showed limitations in long-term durability and mechanical rigidity under continuous chemical exposure and full-line conditions.

While initially cost-driven, long-term operational issues began to emerge.

One of the world's largest steelmaking facilities

POSCO Gwangyang Works has an annual crude steel production capacity of approximately 21-22 million tonnes, positioning it as one of the world's largest integrated steelmaking facilities.

Within this large-scale upstream production framework, the EGL represents a high-value downstream process, with an estimated capacity of approximately 0.4-0.6 million tonnes per line per year. Although EGL accounts for a relatively small portion of total crude steel output, it plays a strategically critical role in producing automotive-grade galvanized steel, where surface quality, corrosion resistance, and process stability are essential.

As a result, equipment applied in EGL - particularly in chemically aggressive sections such as the electrolytic cell line - is subject to significantly higher technical and reliability requirements than those applied to general upstream processes. The valves in the line are continuously exposed to corrosive chemicals, and even minor leakage or splashing can result in long-term corrosion risks.





Products supplied to the project

27 pcs of Bianca butterfly valves,
DN150-300

With 27 valves installed, the project has established a solid technical foundation for future expansion and serves as a valuable reference case for EGL and similar chemical process applications within POSCO and beyond.

Opting for InterApp, even with adjustments

After a comprehensive technical and commercial review, POSCO selected InterApp's Bianca as the replacement solution for the PE valves. Bianca is a metal-bodied PTFE-lined butterfly valve.

It should be noted that, even for Bianca, the electrolytic cell application required the additional installation of PTFE spacers, resulting in a higher total-installed cost during the initial phase. Despite this, POSCO decided to proceed with Bianca due to its mechanical robustness and durability, excellent chemical resistance of the PTFE lining, low lifecycle costs, and reliable performance in both horizontal and vertical piping.

This project represents a strategic shift from initial CAPEX-driven decisions toward a total cost of ownership (TCO) and LCC-based equipment strategy.

Proving its worth under harsh conditions

The EGL applies an electrolytic zinc coating to cold-rolled steel sheets to enhance corrosion resistance and paint adhesion.

The Bianca valves were installed on the electrolytic cell line, operating under the following conditions:

- Service: On/off isolation
- Installation: Both horizontal and vertical piping
- Operating condition: Line is continuously full of process fluid
- Media: Diluted sulfuric acid
- Temperature: Not high, but requiring high corrosion resistance due to chemical exposure

Positive operational feedback

InterApp Bianca valves were installed on a trial basis on the 1EGL electrolytic cell line. The initial operational feedback from POSCO indicates overall satisfaction with product quality and corrosion resistance, and positive assessment of structural stability compared to previous PE valves.

Due to the very harsh chemical environment of the electrolytic cell process, POSCO has suggested further material refinement to the valves, as they are concerned that in the event of minor sulfuric acid leakage, the actuation section (pin-type structure) may be exposed to long-term corrosion.

With the positive results, the project is now positioned at a transition stage from trial application to potential broader roll-out.

AVK VALVES IN RENOVATED WASTEWATER PUMPING STATION

THE NETHERLANDS

To help assure safety and continuity, the Veemarkt wastewater pumping station has been renewed with gate valves and knife gate valves from AVK.

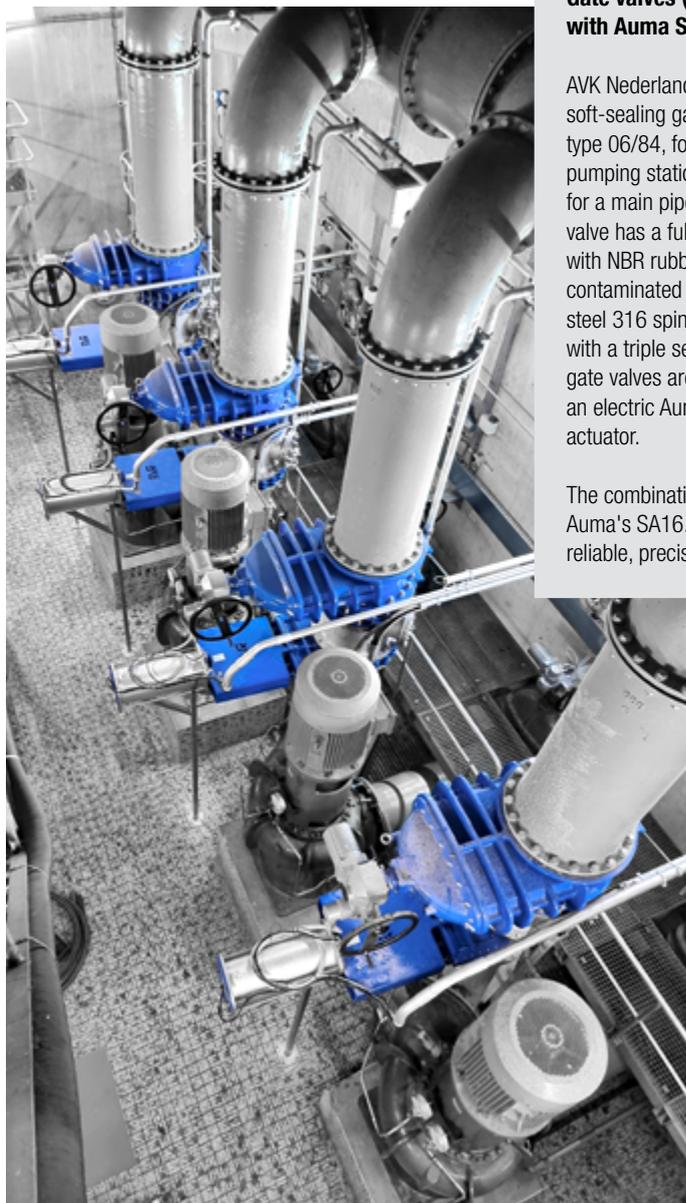
*By Stefan Munk,
Marketing Coordinator,
AVK Nederland BV*

Located on the outskirts of Maastricht, in the southern part of the Netherlands, is one of the largest wastewater pumping stations in the region. The pumping station processes the wastewater of about 41,000 residents (approximately 24,000 households) every day.

Due to outdated valves, several parts of the pumping station were renovated in 2025. For the Limburg Water Board, safety and continuity were top priorities during this renovation. Together with main contractor GW Leidingtechniek and the products of AVK Nederland, an innovative and practical solution has been realised.

With the old system, the Limburg Water Board had to contend with regular disruptions due to wipes and other waste that accumulated around the non-return valve. This not only led to malfunctions, but also to recurring situations for technicians who regularly had to clear blockages manually.

"The safety of the technicians and the reliable operation of the pumping station were paramount when renovating the pumping station at the Veemarkt," says Gijs Bles of the Limburg Water Board.



Gate valves (type 06/84 PN10) with Auma SA16.2

AVK Nederland supplied five soft-sealing gate valves of the type 06/84, four DN600 for the pumping station, and one DN900 for a main pipe. This type of valve has a fully vulcanised gate with NBR rubber resistant to contaminated water, a stainless steel 316 spindle, and is equipped with a triple sealing system. All gate valves are equipped with an electric Auma Matic SA16.2 actuator.

The combination of the valves with Auma's SA16.2 actuators enables reliable, precise control.

"The previous check valves caused a lot of malfunctions and often required physical maintenance, and we wanted to tackle that with the installation of new valves."

In collaboration with GW Leidingtechniek, a combination of AVK gate valves and AVK knife gate valves was chosen. A striking choice is the use of knife gate valves as a check valve. *"A conscious choice from an engineering perspective,"* says Dirk Aerts of GW Leidingtechniek. *"The knife gate valves have a full bore at the open position, so that wipes and dirt do not linger."* For the Limburg Water Board, this is the first time that a knife gate valve has been used for such an application.

Ensuring safety and minimum down time *"Under dry conditions, the pumping station switches on once every quarter of an hour with a pump capacity of 1,500 m³ per hour. During heavy rainfall up to 3,500 m³ per hour can be pumped here,"* says Gijs Bles. The AVK gate valves are placed to safely close the pipework during planned maintenance of this system. And in the event of an emergency, they make it possible to immediately shut down parts of the system and thus limit further damage. In doing so, they contribute to both operational continuity and the safety of personnel and installation.

The installation required a tight schedule. The pumping station was allowed to be out of operation for a maximum of eight hours and only one pump could be disconnected at a time. The system of piping and the Auma's have therefore already been installed in advance. As a result, AVK's valves could be delivered and installed in a balanced manner. Some questions about the closing speed of the valves could be short-circuited directly with AVK Netherlands.

The renovated pumping station is now running again. *"The whole process actually went very smoothly,"* says Gijs Bles. *"Practice has shown that the chosen solution works and we are very happy with the result."* The project was also successful for GW Leidingtechniek.

"The combination of theory, ingenuity, and cooperation between all parties involved has made this project a success," says Dirk Aerts.

At AVK Nederland, we also look back with pride on this project, in which technology and collaboration came together. The result confirms that a well-considered choice of the right valves, in combination with close cooperation between all parties involved, really makes a difference in practice.

Knife gate valve (type 702/40) with pneumatic actuator

For the renovation, AVK supplied four DN600 (series 702/40) knife gate valves with pneumatic actuator. This type of valve is bi-directional with full and plane bore, which means that waste and sediment can hardly accumulate. Thanks to the self-cleaning effect, any dirt is automatically swept out of the bore when the valve is opened.

The pneumatic actuator can be precisely adjusted, which ensures controlled operation of the knife gate valves.

ACQUISITION OF A MANUFACTURING SITE FOR TRIPLE OFFSET VALVES

GLOBAL

AVK Industrial Solutions S.r.l. announces the acquisition of PetrolValves S.p.A.'s manufacturing site for triple offset valves located in Piacenza, Italy.

Press release by AVK Holding

AVK Industrial Solutions S.r.l., announces the acquisition of PetrolValves S.p.A.'s manufacturing site of triple offset valves in Piacenza, Italy. AVK Industrial Solutions S.r.l. is a supplier of industrial valves, actuators, and accessories, and part of the AVK Group. The transaction reinforces the AVK Group's commitment to expanding its production capabilities and strengthening its overall butterfly valve offering for a wide range of industrial applications requiring high performance and reliability.

Under the terms of the agreement, AVK Industrial Solutions S.r.l. assumes ownership of the business dedicated to the manufacturing of triple offset valves, including 42 employees currently based at the Piacenza facility. This acquisition enables the AVK Group to further enhance its product portfolio, drive innovation across high performance product lines, and deliver comprehensive valve solutions to customers across multiple industrial segments – including the energy market.

"We are delighted to welcome the PetrolValves S.p.A. team to the AVK family. This acquisition marks an important milestone in our growth strategy. It strengthens our presence in Italy – one of the most important valve markets



worldwide, particularly in the energy segment – and provides the Group with a highly advanced manufacturing site." - Morten Sæderup Nielsen, CCO, AVK Group & Chairman - AVK Water Solutions.

The PetrolValves production site in Piacenza has been operational since 2018, specialising in the production of high-performance ball valves and triple offset valves. Following the acquisition, the site will be seamlessly integrated into the organisation of AVK Industrial Solutions S.r.l. and AVK's global production network, ensuring continuity for employees, customers, and suppliers.

With this strategic step, AVK Industrial Solutions S.r.l. further solidifies its position as a trusted partner for high-performance valve solutions. By combining the Piacenza team's specialised expertise with AVK's global reach and long-term vision, the Group is well positioned to accelerate innovation, enhance service levels, and create new value for customers worldwide.

FACT

PetrolValves S.p.A.

Founded in 1956, PetrolValves S.p.A. is a leading Italian manufacturer of valves, actuators, and flow control systems for the global energy industry. The company has a long history of innovation in valve technology, including high-capacity and high-integrity solutions for demanding applications in the oil, gas, and energy transition sectors.

AVK Industrial Solutions S.r.l. and the AVK Group

AVK Industrial Solutions S.r.l. supplies industrial valves, actuators, and accessories and is part of the AVK Group. Founded in 1941, the AVK Group today employs more than 5,500 people worldwide and comprises over 100 companies, with an annual turnover of EUR 1.259 billion. The company develops and manufactures valves, hydrants, and accessories for water and gas distribution, wastewater treatment, and fire protection, as well as advanced products and solutions for a wide range of industrial sectors.

PRODUCT NEWS: TRIPLE OFFSET VALVES, SERIES 985

PRODUCTS

We are proud to introduce the AJ triple eccentric butterfly valve AJ, series 985 – a valve designed for high-pressure and temperature applications. The valve has a long and proven history and most recently, its manufacturing was integrated into the AVK network following the acquisition of the PetrolValves manufacturing site in Piacenza, Italy.

By AVK Piacenza

The AJ series 985 allows you to confidently address applications where conventional valves reach their limits. Thanks to its triple eccentric, metal-to-metal sealing design, it delivers:

- ISO 5208 Rate A / API 598 "No visible leakage"
- Metal-to-metal, torque-seated design
- Fire-safe and low-emission performance
- Primary and Cryogenic versions available as standard
- Easy automation with pneumatic, hydraulic, electric actuators, or gearboxes

The AJ Series is ideal for industries with high technical demands and strong growth potential, including:

- Oil and gas
- LNG
- Energy
- Chemical and petrochemical
- Desalination
- District heating and cooling
- Marine, mining, steel industry, and many more.

The valve is a strong alternative to gate, globe, and metal seated ball valves, often with lower total cost of ownership.

The AJ series offers:

- A broad size range (DN80–DN2800)
- Multiple body types and material options
- International approvals and certifications
- Compatible with all common actuators



Interested in hearing about your options?

For more information about the products, or about pricing and logistics, please reach out to the AVK sales office in your region.

SUPPORTING THE NATIONAL ENERGY TRANSITION IN **LARGE- SCALE PUMPED STORAGE PROJECT**

SHANGHAI

The recent inauguration of the Zhejiang Province's first large-scale pumped storage power station in China also marks an important step on the journey towards more renewable energy. A step proudly supported by AVK.





FACT

What is pumped storage?

Pumped storage is a mature, large-scale energy storage technology that moves water between reservoirs at different elevations to balance grid demand. During low demand, electricity pumps water to an upper reservoir, and during high demand, it flows down to generate power.

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

In the face of the severe challenges posed by global climate change, accelerating the development of renewable energy has become a global consensus. Pumped storage represents the most technologically mature, economically optimal, and viable option for large-scale development as a low-carbon, clean, and flexible power regulation source within the power system, holding significant strategic importance and vast development prospects.

In 2016, the Chinese government explicitly proposed to prioritise the advancement of key projects in eight major energy sectors, among which pumped storage hydropower technology drew considerable attention. In 2018, the construction of the Zhejiang Province's first large-scale pumped storage project – the Ninghai pumped storage power station – was officially commenced. The station was finally inaugurated and put into use in May 2025.

A giant power bank for East China's grid

Constructed over a period of seven years and with a total investment of approximately CNY 7 billion, the Ninghai power station is a mega project with a total installed capacity of 1.4 million kilowatts. Now in operation, the power station provides a bidirectional power regulation capacity of 2.8 million kilowatts, undertaking core functions such as peak shaving, frequency modulation, phase

modulation, and energy storage for the Zhejiang power grid.

Additionally, the station provides reliable peak – shaving support to neighbouring provinces and cities, including Shanghai. The station is expected to save 180,000 tons of standard coal and reduce annual CO2 emissions by 360,000 tons. As a result, the station will increase the proportion of clean energy connected to Ningbo's grid from 6.87% to 7.37%

From environmental protection to extreme operating conditions

To meet the stringent requirements of energy projects under China's dual carbon goals (carbon emissions peaking before 2030, and neutrality by 2060), the Ninghai station has set rigorous standards for the reliability and environmental adaptability of its core equipment. Leveraging its global expertise and advanced local manufacturing capabilities, AVK has offered a tailored solution to address the dual needs of ecological discharge control and auxiliary flood relief at the station's lower reservoir. The solution includes large-diameter submerged fixed cone valves (DN2000) along with a supporting flow monitoring system.

AVK's cone valves achieve stable operation under high-flow-velocity and high-head (160 m design head) conditions through fluid

dynamics simulation and precise computational verification, while also possessing accurate flow regulation capabilities. Additionally, these valves feature the functions of dynamic water opening/closing and partial opening, enabling flexible responses to varying discharge flow requirements.

Designed for long-term operation

In the project, the outlet of the lower reservoir discharge tunnel is relatively close to residential areas. At the outlet, a submerged flow discharge method is adopted. The AVK submerged fixed cone valve is equipped with a specially designed flow guide hood and an air make-up device, which effectively mitigate the risks of cavitation and water flow erosion, ensuring safe operation of the equipment throughout its entire service life.

As the core equipment safeguard for the Ninghai station, AVK valves provide crucial support for the safe and stable operation, thereby contributing to the continuous development of sustainable energy production.

Tailored to the needs of different applications and scenarios, AVK is continuously innovating to offer efficient, stable, and high-quality valve solutions, actively serving the national energy transition strategy.



OPTIMISING DISTRIBUTION NETWORKS THROUGH PRESSURE DATA

DENMARK

Pressure sensors provide utilities with real-time network data, supporting efficient operation, energy savings and improved reliability of the water supply.

By Charlotte Brønsted Rasmussen,
Content Specialist,
AVK International

&
Gerner Knudsen,
Business Development Director,
AVK Smart Water

WEBINAR

Friday 13 March
10:00-10:30 CET

Save water and money with real-time pressure data

How does pressure data help you ensure an efficient operation of the supply network? How do you get access to data directly from the supply network? And how does it all work in practice?

Get the answers when Gerner Knudsen from AVK Smart Water solutions and Klavs Høgh from NIRAS share their know-how about pressure sensors and the use of real-time data in water supply.



Scan/click here to sign up for the webinar

Efficient operation and improved network performance

The Danish utility Verdo has installed pressure sensors at strategic locations in the distribution network to gain better insight into pressure levels and operating conditions. This improves network performance and operational efficiency and reduces the need for time-consuming manual inspections. With real-time access to pressure data, Verdo can respond faster to deviations in the network, and daily operations can be managed based on actual conditions rather than assumptions.

Pressure data for planning purposes

The valuable documentation of actual network behaviour provided by real-time pressure monitoring not only improves daily operations. It also supports planning activities. According to NIRAS, a leading engineering consultancy,

access to pressure data strengthens their work with hydraulic calculations, modelling and long-term planning. Continuous pressure monitoring enables the consultants to validate assumptions and improve the accuracy of analyses, and thereby provide solutions better aligned with actual operating conditions.

Watch the solution in action

In a case video, Verdo shares the operational benefits of pressure monitoring and NIRAS explains how it enhances modelling and long term planning.



Scan/click to watch video



ULEFOS AND FURNES JOIN FORCES IN **NEW** **PARTNERSHIP**

GLOBAL

Press release by AVK Holding





From top left: Kathrine Duun Moen, Morten Sæderup Nielsen, Jacob Kjær, Lars Kudsk, Johan Diderik Cappelen, Anita Nedergaard Uth, and Jan-Børre Vik. Second row: Martin Sagen, Erik Andreas Henriksen, Oddbjørn Maurdalen, and Jan Halvor Sæl.

Our AVK company Furnes AS in Norway and Randers Jernstøberi A/S in Denmark are being merged into a new company with the Norwegian group Ulefos Holding AS including their subsidiaries in Sweden, Denmark and Finland. Hereby we merge two Norwegian based companies and are combining three foundries to optimise production across products and brands. The objective is to secure the future of Nordic water and wastewater infrastructure by delivering the most sustainable and cost-effective solutions.

The two industrial companies, Ulefos Holding AS and Furnes Jernstøperi AS, are joining forces in a new partnership to be operated under the name CK Partners AS, with ownership rooted in the Cappelen and Kjær families. The purpose of the joint venture is to strengthen the companies' position in a demanding market characterised by increased international competition and persistently low activity in the construction and water sector.

"Competition from low-cost countries is intense, and demand has remained below normal levels for an extended period. We need to go back to the financial crisis to find a comparable period of low production. Establishing an independent foundry system with three foundries will create better conditions for competing in the Nordic market," says Carl Diderik Cappelen, owner and chairman of Ulefos Holding.

"Market conditions are challenging. A joint venture will help secure jobs and maintain

Nordic foundry operations for the future," says Jacob Kjær, co-owner of AVK Group and Director of AVK Advanced Manufacturing.

The new group is owned 49% by the Norwegian Cappelen family through Cappelen Holding, representing the seventh generation of ownership of the Ulefos group. The remaining 51% is owned by the Danish Kjær family's AVK Group, which has held a majority stake in Furnes Jernstøperi since 2019.

"We are now bringing together two strong industrial cultures to create a leading Nordic player. From Norway, the new operation will secure the future of water and wastewater infrastructure in the Nordic region by developing and producing the most sustainable, cost-effective and reliable solutions," says Morten Sæderup Nielsen, chairman of AVK Water Solutions and of the joint venture.

Oddbjørn Maurdalen will serve as CEO, and Jan Halvor Sæl will serve as CFO. Martin Sagen will be responsible for the foundry system and, by extension, all foundries. Erik Andreas Henriksen will be responsible for the development and sales of Ulefos products, as well as for the production and sales of products from the Esco valve factory in Kongsberg.

Development and sales of Furnes products will continue to be handled by Oddbjørn Maurdalen, who will establish an office for the sales and development company in Hamar during 2026.

Combining three foundries

The joint venture will operate three foundries, all to be renamed: Ulefoss Jernstøperi (formerly Ulefos Jernværk) in Nome municipality, Stange Jernstøperi (formerly Furnes Jernstøperi) in Stange municipality, both in Norway, and Harjavalta Valimo (formerly Niemisen Valimo) in Finland.

"We are establishing a foundry system that spans brands, facilities and expertise. Furnes products can be manufactured at Ulefoss, and Ulefos products can be manufactured at Stange. The increased flexibility enables us to optimise production," says Martin Sagen.

Sales companies and products continue

The Stange-based company Furnes supplies street castings, including frames, manhole covers, grates and drains. Ulefos group offers the same products and supplies valves for water and wastewater through Esco. These will continue to operate as separate and competing businesses.

"Day-to-day operations will continue as before. For customers and suppliers, this means enhanced product development, improved logistics, and more cost-effective, sustainable local production based on renewable energy," says Oddbjørn Maurdalen.

WATER INFRASTRUCTURE IN PRACTICE: FROM STRATEGIC NETWORKS TO PUBLIC SPACES

SAUDI ARABIA

Good water infrastructure is rarely spoken about. When systems operate reliably, they remain in the background – part of everyday urban life, without drawing attention to themselves. That quiet reliability is, in many ways, the intended outcome of good engineering.

*By Alyona Dolgikh,
Marketing Executive, Commercial
AVK SVMC*

Behind this apparent invisibility lies consistent and deliberate work – from early design decisions to installation and commissioning. What matters is not only how a system appears on drawings, but how it performs in real operating conditions, long after construction is completed.

Across Saudi Arabia today, projects of very different scale and purpose are being delivered, yet they share a common approach: technical solutions are treated not as isolated components, but as parts of integrated systems designed for long-term, stable operation.

How this approach takes shape in practice depends on context – the scale of the project,



its function, and the urban environment. This becomes particularly clear when looking at projects implemented in different cities and under different conditions.

Supporting long-term water security in Dammam

The story of this project in Dammam is a story of how complex engineering solutions are transformed into a reliable system that will support the city for many years ahead. Covering 95,588 m of pipeline and valued at SAR 782 million, the project formed a key element of Dammam's strategic water network – a system designed to securely transport large volumes of water between critical elements of the city's infrastructure.

Every stage of delivery required coordination, timing, and precision. Under the leadership of Project Manager Engr. Mohammed Hasan Taha, from Al Yamama Co. for Trading & Contracting, the team built a system designed not only to be successfully installed, but to operate dependably long after completion. The project was implemented for the National Water Company and completed by October 2025. This section of the strategic water network represents far more than kilometres of installed pipelines and valves – it is an essential part of Dammam's long-term water security.

Products supplied to the project:

- 253 pcs of butterfly valves, series 756, DN 300 -1600
- 188 pcs of dismantling joints, series 265
- 9 pcs of check valves
- Various gate valves, DN 100-400
- Various air valves, DN 100-200
- AUMA actuators

Installation works were carried out with strict adherence to technical specifications, quality standards, and safety requirements. Documentation, testing, and third-party inspections were conducted in parallel with installation, allowing the project to maintain its pace and successfully achieve all required approvals without delays.

Quality, compliance and client confidence

AVK SVMC is an approved supplier to the NWC and is included in the official vendor list. All supplied products are certified and comply with the relevant international and local standards. AVK ensures full transparency of manufacturing processes and, where required, facilitates FAT prior to delivery – minimising risk and providing the client with full confidence in product performance, safety, and long-term reliability.



Green Riyadh: Water infrastructure as part of a liveable city

A different context can be seen at Al-Urubah Park in Riyadh, which is being developed as part of the Green Riyadh programme – a flagship urban initiative aligned with Saudi Vision 2030 and the ambition to position the capital among the world's most liveable cities. It is not only about greenery and landscape; it is about building an urban environment that people can truly inhabit, enjoy, and feel connected to.

Today, the park continues to take shape, with full completion planned for 2026. But its future shape is already clear. Spanning approximately 754,000 m² in the Al-Rahmaniyah District, Al-Urubah Park is envisioned as a public space woven directly into the city's daily rhythm. More than 600,000 trees and shrubs will create a lush green landscape covering around 65% of the entire park. A 3 km elevated panoramic walkway, rising up to 12 m, will open sweeping views across Riyadh, while 14 km of pathways, terraces, sports facilities, and event areas are being designed not for occasional visits, but for everyday use.

Green Riyadh is a complex engineering challenge that depends on reliable drainage, irrigation, and long-term water management. These systems must operate effectively in varying hydraulic conditions, withstand intensive public use, and do so while remaining almost invisible within a highly aesthetic environment.

Drainage outfall installations are currently progressing at Al-Urubah Park, and AVK is proud to play a key role in this project. Our responsibility is straightforward in definition but demanding in practice:

To provide valves that will operate safely, efficiently, and sustainably for many years, ensuring the park remains resilient, functional, and comfortable for everyone who will use it.

The drainage equipment includes:

- Orbinox RR Series flap valves
- Diameters DN1500 and DN2000

During the installation phase, all equipment remains fully accessible for inspection and verification. Once stone cladding and finishing works are completed, the valves become part of the surrounding structure – technically robust, yet visually invisible to park users.

Despite the challenges in scale and setting, both installations reflect a practical engineering mindset. Decisions are guided by operating conditions, long-term reliability requirements, and careful integration into existing systems.

For AVK, Green Riyadh is more than another project reference. It is a contribution to shaping the future of Riyadh. It is proof that infrastructure can be both technically excellent and deeply meaningful. And it is a reminder that when engineering is done well, it quietly improves everyday life – making cities greener, safer, and better places to live.

At AVK SVMC, we are proud to be part of this story.

SUPPORTING EDUCATION AND TRAINING OF THE LOCAL WATER SECTOR

HUNGARY

AVK Magyarország Kft. is opening a new, state-of-the-art training centre in Budapest, designed to become one of the leading educational hubs of the Hungarian water utility sector.

*By Tamás Bedegi
General Manager,
AVK Magyarország Kft.*

The facility aims to support the development of future water utility professionals, contractors, and designers by providing hands-on experience across the full lifecycle of sustainable and innovative water utility networks – from planning and construction to operation and maintenance – in a realistic, practice-oriented environment.

A training centre built on practice

The new centre features fully operational water utility installations, covering everything from service connections and network fittings to fire hydrants and specialised control units. Participants work with the same valves, connection methods, and network components used in Hungarian drinking water and wastewater systems, ensuring that the knowledge gained can be directly applied in everyday professional practice.

Several dedicated “real-life” layouts demonstrate typical network configurations. One module focuses on fire protection water networks, while others cover distribution mains, service connections, and pressure control systems. Participants can practice the complete installation process – from pipe laying and valve





installation through pressure testing to fault detection and maintenance.

Sustainable and innovative water utility solutions

Sustainability is a core element of the training programs. Participants learn about solutions that reduce water loss, lower energy consumption, and minimise the environmental impact of water utility networks. The courses present long-life, corrosion-resistant materials, energy-efficient control valves, and operational practices that improve safety, reliability, and predictability.

Intelligent, data-driven operation also plays a central role. The centre introduces remotely monitored devices, telemetry-equipped valves, and advanced measuring instruments that enable continuous network supervision, early fault detection, and the planning of targeted, cost-effective interventions.

Who is the new centre for?

The AVK training centre is designed for a broad professional audience, including:

- Employees of water utility operators responsible for operation and maintenance
- Design engineers who wish to see their concepts realised in practice
- Professionals from contracting companies, including installers and site managers
- Students from technical universities and colleges seeking hands-on experience as future water industry specialists

The modular structure of the courses allows participants to select programs that match their level of expertise and professional responsibilities. Introductory modules cover fundamental principles and essential installation techniques, while experienced professionals can attend specialised courses on topics such as pressure zone design, fire protection networks, industrial applications, or complex rehabilitation project planning.

Cooperation with education and industry

AVK Magyarország Kft. is committed to ensuring that the training centre becomes a true meeting point for the Hungarian water utility community rather than a stand-alone facility. Universities, industry partners, and professional organisations are actively involved in curriculum development, ensuring that course content continuously reflects current standards, regulations, and technological trends.

Beyond formal training, the centre also serves as a platform for sharing best practices, case studies, and innovative solutions. Workshops, professional days, and thematic events provide opportunities for designers, investors, contractors, and operators to jointly address challenges such as climate change, aging infrastructure, and increasingly stringent regulatory requirements.

GATE VALVES REFURBISHED AFTER YEARS-LONG INACTIVITY, NOW BACK IN OPERATION

UNITED ARAB EMIRATES

At the Wadi Wurraya and Wadi Safad dams, two large metal seated gate valves were jammed due to a long period of standstill. After a quick refurbishment in the AVK workshop, they have now been reinstalled and are back in operation.

*By Anurima Roy,
Regional Marketing Manager,
AVK Gulf*



Nestled in the mountainous terrain of Fujairah, the Wadi Wurraya and Wadi Safad main dams play a critical role in regional water security. Together, they capture seasonal floodwaters and recharge groundwater, supporting both local communities and agriculture. Wadi Wurraya stores several million cubic meters of runoff, while Wadi Safad contributes approximately 0.26 million m³ of regulated water. These federal dams ensure reliable water supply, flood protection, and long-term sustainability across the region.

A DN1000 metal seated gate valve at each dam had been left unoperated for more than five years. Both valves, essential for controlling water flow, were reported as fully stuck in the closed position. Years of inactivity had raised concerns about operational reliability and the long-term performance of the dams' water management systems.

Recognising the importance of preserving these critical assets, the Ministry of Energy & Infrastructure (MOEI) turned to AVK Gulf, their trusted partner regarding critical water infrastructure and large-diameter gate valves, for expert evaluation. They required on-site assessment of the valves to determine their operability and the most suitable corrective action.

Upon visiting both sites, AVK engineers conducted detailed inspections and quickly identified the AVK gate valve as installed approximately 15-20 years ago. Through careful evaluation of system design and operating history, the engineers concluded that the valves were selected correctly and mechanically sound – the issue was solely due to long-term non-operation, a common phenomenon for large isolation valves that are not periodically exercised.

Workshop inspection and minor restoration

Rather than recommending costly replacements, AVK Gulf took ownership of the refurbishment. The valves were transferred to the workshop for dismantling, detailed inspection, and minimal maintenance. Upon dismantling, it was confirmed that the valve was mechanically secure and structurally robust. The internal condition was excellent considering its long service life and the environmental conditions at the site. The primary issue was prolonged inactivity, which had caused the valve to jam, a common occurrence for large isolation valves that are not periodically operated.

Only minimal maintenance was carried out to restore the valve to full operational condition, clearly demonstrating the durability, robustness,

and maintainability of AVK metal seated gate valves, even after two decades of service.

Expect solutions, not just products

Once reinstalled, the valves returned to service seamlessly, safeguarding dam operations and restoring confidence in the reliability of MOEI's water management infrastructure.

AVK Gulf assisted with quick identification of the root cause of malfunctioning. By focusing on rehabilitation over replacement, the team delivered a cost-effective, minimally disruptive solution, reinforcing the long-term value of being an AVK partner.

"This case demonstrates the robustness, durability, and maintainability of our metal seated gate valves, even after many years of service under harsh environmental conditions," says Ahmed Hosny, Regional Manager Technical Advisory, AVK Gulf.

Through this project, AVK Gulf reaffirmed its commitment to practical problem-solving, and 24/7 customer support, helping clients maximise asset life while ensuring operational reliability across critical water infrastructure.

Products refurbished in the project:

2 pcs metal seated gate valves, series 02, DN1000



AVK PRODUCTS WILL ASSIST IN FUTURE WATER RESILIENCE MALAYSIA

With three recent package wins, AVK Malaysia is now a key valve supplier in national flagship project.

*By Marcus Tan,
General Manager,
AVK Malaysia*

AVK Malaysia has secured the Rasau project's package 2 and 3 from Taliworks Corporation Berhad, with deliveries starting in 2026. This win is especially meaningful as Taliworks returned to AVK Malaysia after a 10-year gap - a clear signal that the quality and reliability stand the test of time.

These awards come on the back of the large-scale package 1 being secured in 2023 from Gamuda Group. Combined, they strengthen AVK Malaysia's position as a key valve supplier for the Sungai Rasau water supply scheme (phase 1), one of Malaysia's largest water infrastructure projects with a total value exceeding USD 400 m.

Supporting the country's water resilience

The Rasau scheme, led by Air Selangor, the largest water services provider in Malaysia, will produce up to 700 million litres of treated water daily, significantly bolstering Greater Kuala Lumpur's long-term water security. As a flagship national project, Rasau is central to Malaysia's future water resilience.

Taliworks, a major listed infrastructure player, brings weight to this achievement. Regaining their trust after a decade speaks volumes about AVK Malaysia's capability, consistency, and market reputation, and reflects a strong confidence in AVK's quality, capability, and performance.

Winning back a key customer after 10 years and taking multiple Rasau packages shows the trust we've earned through reliability and technical strength. Our team works closely with

contractors and Air Selangor to deliver long-term, dependable solutions for Malaysia's water network.

These consecutive wins mark a major milestone for AVK Malaysia. Together with our global partners, we will continue to lead with innovation, reliability, and sustainability, ensuring proper water solutions in Malaysia and beyond.

Products to be delivered to the project:

- Gate valves
- Butterfly valves
- Air valves
- Knife gate valves
- Plunger valves
- Actuators

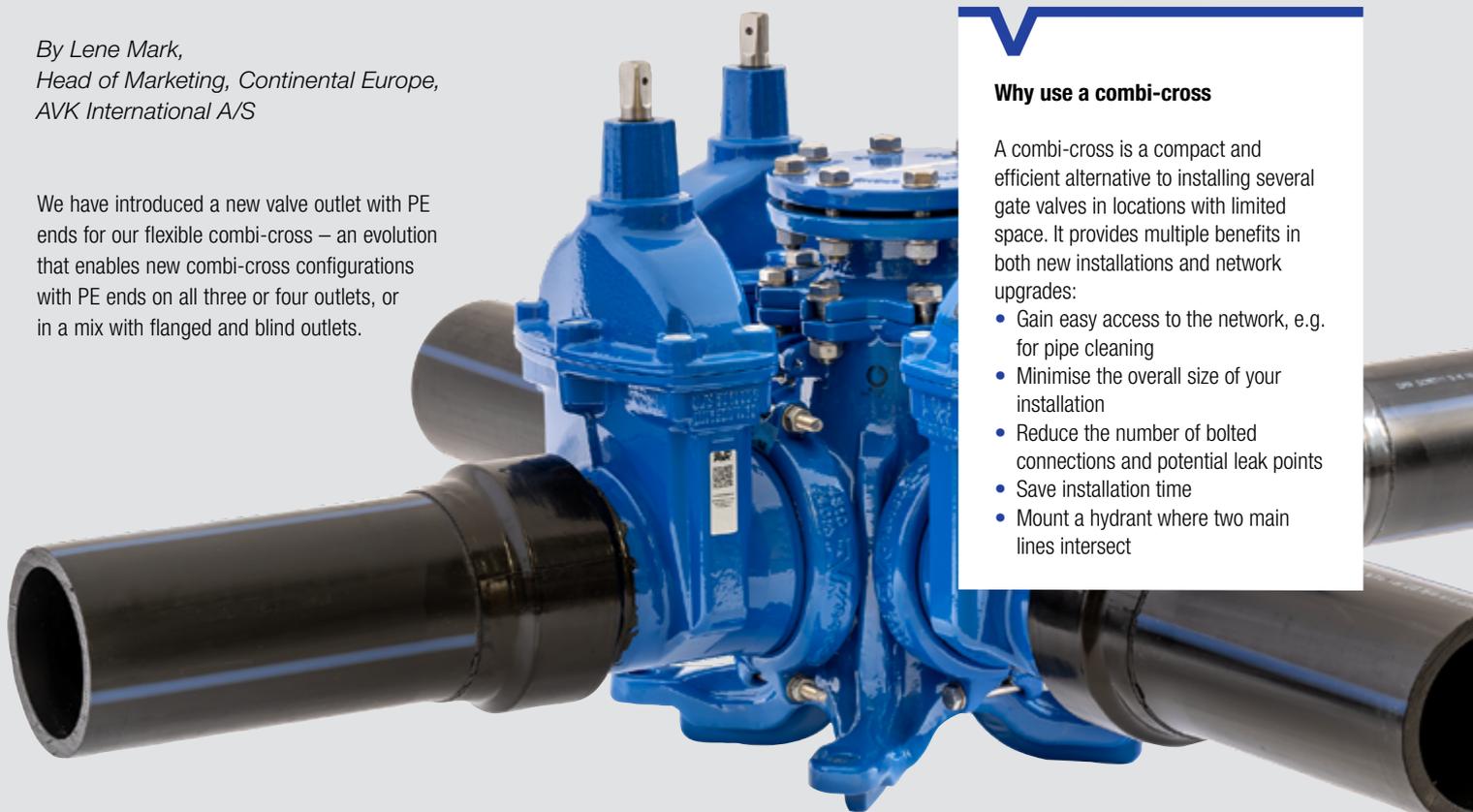


COMBI-CROSS NOW ALSO AVAILABLE WITH PE PIPE ENDS

PRODUCTS

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

We have introduced a new valve outlet with PE ends for our flexible combi-cross – an evolution that enables new combi-cross configurations with PE ends on all three or four outlets, or in a mix with flanged and blind outlets.



Why use a combi-cross

A combi-cross is a compact and efficient alternative to installing several gate valves in locations with limited space. It provides multiple benefits in both new installations and network upgrades:

- Gain easy access to the network, e.g. for pipe cleaning
- Minimise the overall size of your installation
- Reduce the number of bolted connections and potential leak points
- Save installation time
- Mount a hydrant where two main lines intersect

Ideal for buried applications in PE networks

A combi-cross with PE ends is ideal for buried applications in PE networks, combining the advantages of a compact multi-valve unit with the installation benefits of direct welding into a PE pipe system.

The new valve outlet is available in DN100, DN150 and DN200, corresponding to the DN of the combi-cross centre part. The valves are supplied with black/blue PE100 SDR11/PN16 pipe ends as standard, and on request with SDR17/PN10 pipe ends or with other PE materials.

Design highlights

- Integrated PE pipe ends: Compatible with PE100/PE100-RC pipes and available in OD110, 160, 180 and 225 mm. Designed for electrofusion and butt fusion, eliminating the need for flange connections.
- Valve design: Incorporates AVK's well-proven valve design with a boltless, full bore PE end connection that is fully tensile resistant and meets all criteria specified in DVGW G5600-1.
- Valve materials: Duplex stems (W1.4362), drinking water approved EPDM rubber and a GSK approved epoxy coating.

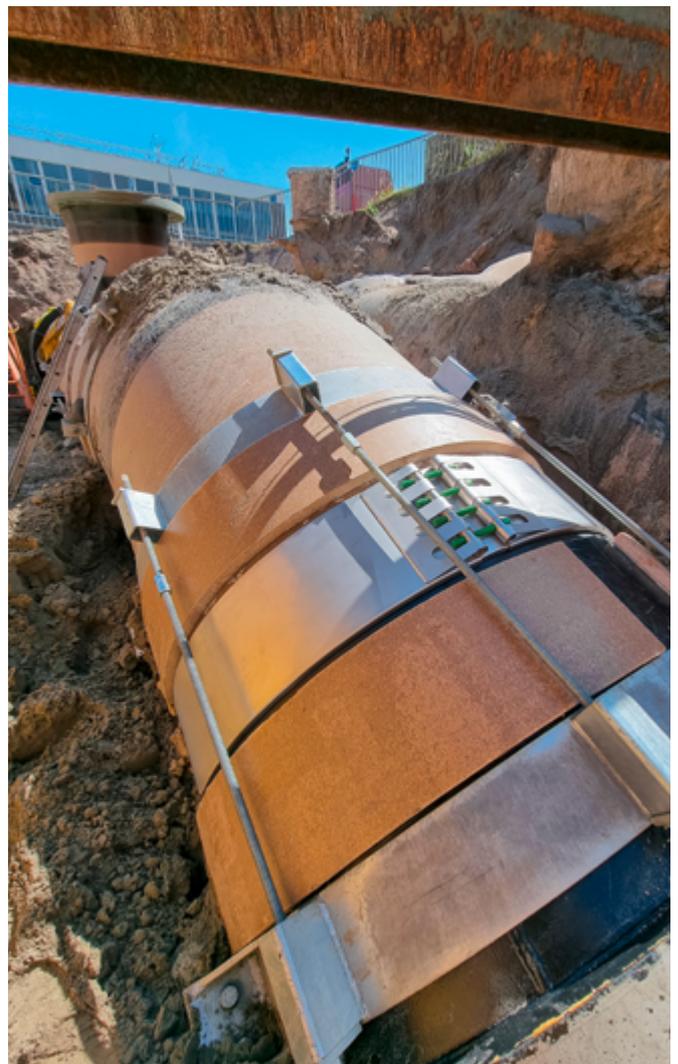
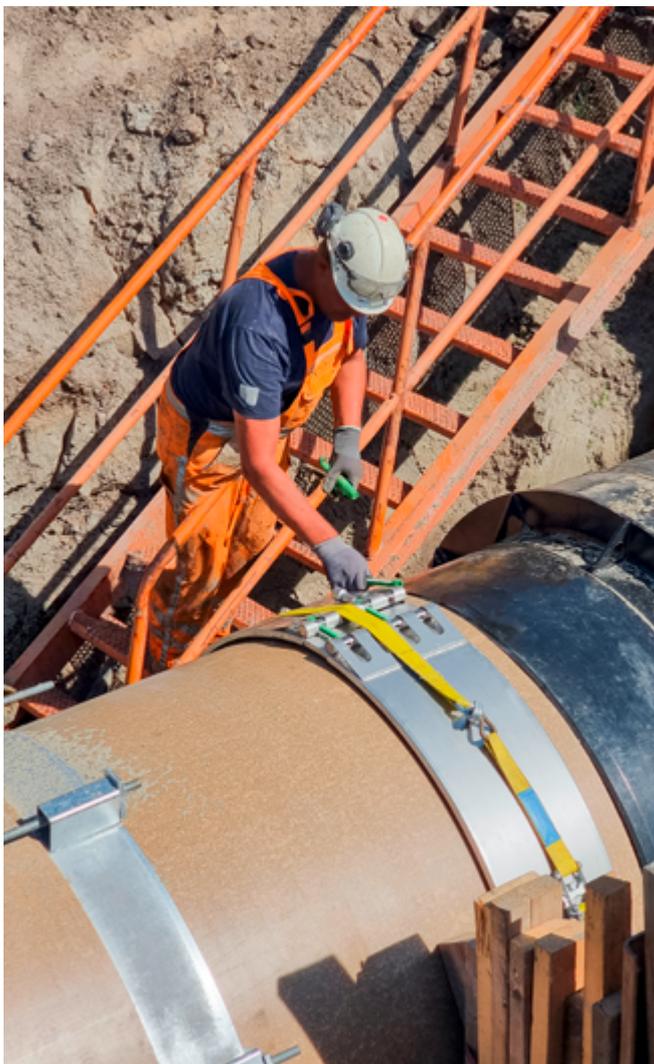
- Vertical outlet: The DN100 outlet is fitted with a blind flange and can be used for hydrant installation or as an inspection access point.
- Configuration possibilities: On request, the flexible combi-cross in DN100-200 can be configured with a mix of outlets – valve with PE end, flanged valve, flange or blind cap – to meet specific requirements.

REPICO® STFL COUPLINGS FOR FUTURE-PROOF WASTEWATER SYSTEM

THE NETHERLANDS

AVK Industrial delivers custom solutions with five Repico® STFL DN1500 couplings for the main wastewater pipeline of West Brabant. A technical precision project with significant impact.

*By Stefan Munk,
Marketing Coordinator,
AVK Nederland BV*



A football field, two meters underwater – and all of it within just one hour. That is the amount of wastewater the installations at the pressure station in Bergen op Zoom pump every sixty minutes towards the treatment plant in Bath, Zeeland.

The wastewater pressure pipeline between Moerdijk and Bath is the beating heart of regional water management. Distributed over two pipelines, together 60 km long, wastewater from 35 villages and towns is transported at high speed to the treatment plant.

Repico® couplings for robust pipe connections

To ensure safe transportation of this large amount of wastewater in the future, several sections of the pressure pipeline have been renewed. During the renewal of this pipeline, it was necessary to transition between existing PSK concrete pipes and Bonna Sentab VSP pipes to new GRP pipes. For this purpose, five Repico® STFL DN1500 couplings were produced.

The tolerance space in this transition was minimal (only ± 1 mm), making absolute dimensional accuracy and flexibility necessary.

The couplings are made of AISI 316L stainless steel with a rubber seal. With a coupling width of 310 mm and a tolerance range of 12 mm, this solution forms a perfect combination of strength, flexibility, and sealing reliability.

The installation was carried out by M.J. Oomen sewer and concrete technology, part of KWS. In close cooperation with AVK, the concept was aligned with practical application, from engineering to execution. This ensured not only the fit but also the long service life of the connection.

"The couplings were very pleasant and easy to install," said a technician from M.J. Oomen Sewer and Concrete Technology. *"Choosing Repico® also meant no welding, no gluing, and minimal installation time."* All in all, ideal for projects where downtime directly impacts daily operations.

This project demonstrates what happens when water management, technology, and craftsmanship come together. By deploying the right materials and partners, a crucial part of the Brabant wastewater system is now future proof. The Repico® STFL DN1500 couplings not only form the physical connection between pipes but also serve as a link in the broader chain of clean water, safe discharge, and future proof infrastructure.



PROTECTING NETWORK INSTALLATIONS AND DOWNSTREAM PIPING

TAIWAN

To ensure safety and reliability in operation at the Fengshan Water Resource Center, a DN500 flap valve was successfully replaced.

*By Stig T. Bondrup
General Manager,
AVK Hong Kong, Macau, Taiwan
and Korea*

The Fengshan Water Resource Center, located in Kaohsiung City, is a key facility responsible for municipal wastewater treatment and reclaimed water supply. It also serves as a major water source for industrial users such as China Steel Corporation.

The old flap valve was installed in the pipeline section between the coarse and fine screening processes. Its primary function was to prevent wastewater backflow, thereby protecting the pumps and the downstream piping of the treatment system. However, after years of operation, the existing valve began to show issues such as failure to return to its original position and reduced sealing performance. This resulted in backflow, placing excessive load on the pumps and increasing the risk of motor damage. To ensure long-term operational stability and system safety, the owner decided to proceed with a valve replacement project.

To ensure uninterrupted water supply, the replacement had to be completed within three hours. Also, the water level had to be temporarily lowered to allow for safe work conditions.

Selecting the best fit valve

After evaluation, the project selected the RR flap gate from Orbinox as the replacement solution. AVK Taiwan provided on-site technical support and installation services.



Site condition before replacement.

The valve's technical specifications:

- Model: Orbinox RR
- Valve type: Circular flap gate (flap valve), unidirectional sealing
- Size: DN500, PNI 0, compatible with JIS 1 0K flange drilling
- Body and gate material: AISI 304 stainless steel
- Sealing material: EPDM
- Flexible installation options

Design and functional features

Orbinox' RR model remains closed at rest, and opens automatically when downstream water head exceeds upstream pressure, assuring backflow prevention. The self-adjusting lip seal ensures excellent watertightness even under low seating head conditions., and a double-joint pivot arm ensures precise gate positioning for optimal sealing performance.

The valve has numerous beneficial features, such as long-lasting sealing performance to prevent leakage and water loss, stable corrosion resistance, making it suitable for humid and chlorine-rich environments. Also, its low-maintenance design featuring self-lubricating bushings and multiple o-ring seals reduces service frequency.

Immediate results and benefits

After commissioning, on-site testing confirmed fully unidirectional flow with no backflow, ensuring stable operation of sludge discharge and reclaimed water systems. The valve demonstrated stable corrosion resistance under Kaohsiung's humid and chlorine-rich conditions, extending service life and enhancing overall system reliability.

To meet the extremely short installation window and water isolation constraints, AVK Taiwan closely collaborated with the Orbinox technical team in Europe, providing guidance and expertise for rapid valve removal and precise on-site positioning.

"The new flap valve performs very well - functions are stable and maintenance frequency has noticeably decreased. We plan to continue replacing other old flap valves in the same system next year to further improve overall operational stability", - Fengshan Water Resource Center



Pre-installation photo of the Orbinox RR flap.

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