

**AVK** WASTEWATER TREATMENT



QUALITY YOU CAN RELY ON  
**AS CUSTOMERS RELY ON YOURS**





# LET'S ENGINEER PREMIUM SOLUTIONS THAT LAST

AVK's solutions for wastewater treatment withstand even the toughest conditions and last for decades. We deliver durable products that constitute the most cost-efficient solution for our partners in the long run.

AVK has been in the valve business for more than 50 years. Today, we are offering solutions for numerous applications also counting a complete product range for wastewater treatment. Our range includes all you need within gate valves, knife gate valves, swing check valves, ball check valves, air valves, butterfly valves and penstocks as well as flange adaptors, couplings and repair clamps.

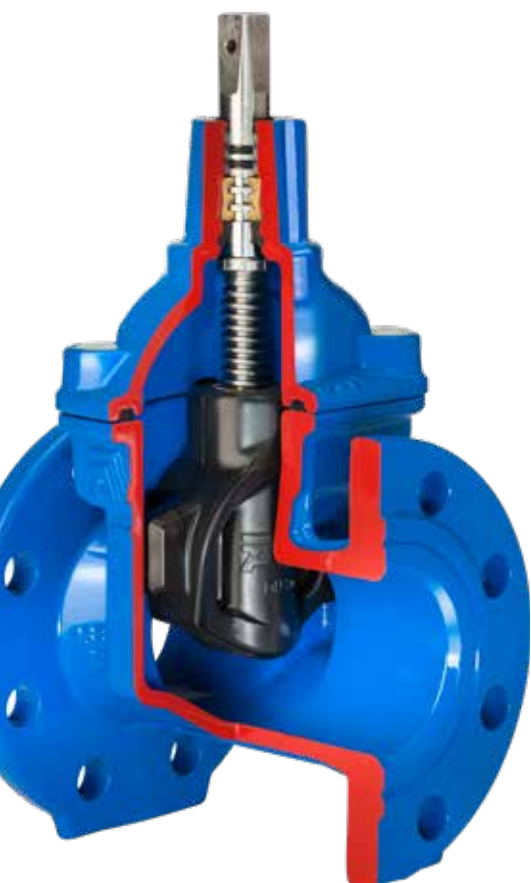
Our quality assurance system is certified according to ISO 9001 and ISO 29001. Moreover, we are certified to the ISO 14001 standard for Environmental Management, the ISO 50001 standard for Energy Management, and to the ISO 45001 standard for Occupational Health and Safety.

Our products are renowned for their high quality, durability, and trouble-free performance, and are supported by long warranties and technical support throughout their lifetime. With representation in most markets and manufacturing facilities around the world, we ensure local commitment, easy accessibility, and reliable customer service wherever we operate.





# GATE VALVES RENOWNED FOR SUPERIOR QUALITY



The wedge is the heart of a gate valve and the quality of the wedge rubber is crucial for the valve function and durability. AVK wedges are fully vulcanised with AVK's rubber compound with outstanding characteristics. The double bonding vulcanisation process ensures maximum adhesion of the rubber and prevents creeping corrosion.

## **Outstanding wedge design**

AVK's wedge nut design with a fixed, integral wedge nut outperforms the traditional loose wedge nut design as it prevents vibration and thus also corrosion and malfunction.

The fixed wedge nut, combined with the fully vulcanised wedge and wedge shoes, secure a smooth operation of the valve and low operating torques. The wedge shoes protect the rubber against wear which otherwise would arise caused by the friction during operation.

## **The rubber regains its shape**

AVK's rubber compounds feature an excellent compression set securing a 100% tight sealing even after many years in service.

Impurities will not affect the rubber surface or the tightness of the valve, as they will be absorbed in the rubber when the valve is in closed position. When the valve is reopened, the impurities will be flushed away, and the rubber will regain its original shape.

**Safe operation**  
The large rubber volume in the sealing area combined with the excellent compression set provide optimum sealing.





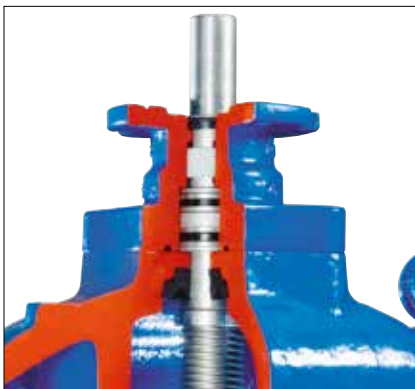


#### Feature summary

- Fixed, integral wedge nut prevents vibration
- Fully vulcanised wedge and wedge shoes prevent corrosion
- AVK's wedge rubber regains its shape which ensures tightness and durability
- Rolled stem threads enhances the durability
- Wedge stop provides a firm stop against the wedge nut to protect seals and coating
- Triple safety stem sealing
- Full circle thrust collar provides fixation of the stem and low free running torques
- The stem is mounted from below, and the thrust collar expands inside the bonnet and fixes the stem, preventing it from being blown out
- The bonnet gasket is fixed in a recess in the bonnet and encircles the bonnet bolts to prevent blow-out
- The stainless steel bonnet bolts are countersunk and sealed with hot melt to protect against corrosion
- Full bore ensures low head loss
- Low operating torques ensure easy operation
- Fusion bonded epoxy coating in compliance with DIN 3476 part 1 and EN 14901, GSK approved, optionally internal enamel

#### Various configurations

- Standard bonnet in DN40-400
- Pin indicator and handwheel in DN50-400
- Rising stem and handwheel in DN50-400
- Prepared for actuator in DN40-1000
- Pneumatic actuator in DN65-300



#### Gate valves DN450-600

In DN450-600 the valves are designed with two roller bearings and a thrust collar of stainless steel to ensure low operating torques.

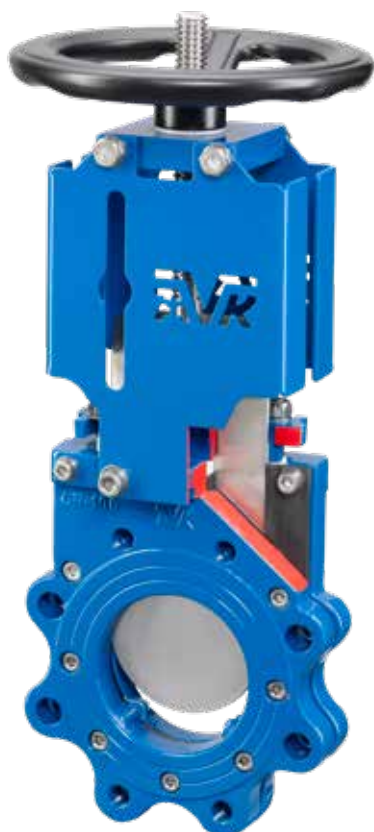


#### Gate valves DN700-1200

Thrust washers and nylon bearings are used due to the higher axial forces.



# KNIFE GATE VALVES DESIGNED FOR TOUGH CONDITIONS



AVK knife gate valves embody user requests for a valve which functions well under harsh conditions. The wafer/lug knife gate valves are bi-directional with full and plain bore. The protected sealings and high-quality materials bring about a great performance and a long service life. The valves are ATEX approved.

## Optimised performance

AVK knife gate valves are designed with full bore without reduction of the flow, and with plain bottom preventing sediment from being accumulated and obstructing a drop tight closure.

There is no cavity in the body and thus no risk of clogging. Supports integrated in the body protect the gate from deflecting under pressure.

## Thought out details

With regard to safety, the stem is as standard encaged to ensure hand protection. The yokes are designed with slots for M12 and M18 inductive sensors and are prepared for easy mounting of micro switches.

The screws with locking nuts secure a safe and durable connection between stem and gate, even when the valve is exposed to vibration.

**Long life under harsh conditions**  
The screws with locking nuts secure a safe and durable connection between stem and gate, even when the valve is exposed to vibration.

The adjustable top packing gland enables sealing replacement without disassembly of the valve.







### Protected sealings

The one-piece U-shaped NBR sealing between the body parts makes up for tolerances in coating and casting, and offers therefore a complete tightness. It is reinforced with a steel insert to protect it from being damaged during operation.

The adjustable top packing gland enables sealing replacement without disassembly of the valve.

### Feature summary

- Bi-directional
- Full bore and plain bottom
- Adjustable top packing gland
- U-shaped reinforced NBR sealing (other materials on request)
- Encaged stem with yokes prepared for inductive sensors and micro switches
- Stem/gate connection with self-locking nuts
- Supports integrated in the body
- Gate, stem, bolts and nuts of acid-resistant stainless steel
- Body of ductile iron with 150µ fusion bonded epoxy coating, optionally other materials
- Washers under the secondary bolts protect the coating
- Slim design and low weight
- With lever, handwheel, pneumatic actuator, ISO top flange and complete with electric actuator
- Scraper for cleaning off sediment from the gate to protect the packing gland (optional extra)
- Available up to PN 100
- ATEX approved



# CHECK VALVES ENSURING OPTIMUM PUMP PERFORMANCE



## Unique design

By unscrewing a few bolts the bonnet assembly including hinge and disc can be removed from the body. The hinge is tightened around the shaft with bolts to eliminate play and thus ensure durability.



AVK offers a wide range of swing and ball check valves featuring full bore and low head loss resulting in maximum utilisation of the pump capacity. The check valves can be installed in both horizontal and vertical positions and are easy to maintain.

## Swing check valves

AVK swing check valves are available in DN50-600 and feature full bore and low head loss, as well as easy access to maintenance and a great durability.

## Lever and weight

Swing check valves with lever and weight are appropriate for installations with an increased risk of water hammer at standard velocities.

The solution enables visual check and valves in small dimensions offer the possibility of priming by moving the lever manually. The weight is adjustable on the lever to achieve a soft closing against the seat as well as an optimum closing speed to prevent water hammer.

## Feature summary

- Bonnet/disc design gives easy access to maintenance
- Disc with steel insert is fully vulcanised with EPDM rubber (up to DN300) ensuring optimum sealing ability
- Lip sealing on the disc ensures tightness
- Light-weight disc requires a minimum of force to open and close the valve
- The disc is mounted in a nylon bushing, which allows it to move slightly both horizontally and vertically to close completely tight also in case of minor impurities in the seat
- Hinge tightened around the shaft with bolts to eliminate play and thus ensure durability
- Full bore ensures low head loss
- Ductile iron fusion bonded epoxy coating in compliance with DIN 3476 part 1 and EN 14901



A guard covering the lever and weight eliminates the risk of injuries. Optionally with limit switches for remote monitoring.

Swing check valves with lever and external spring are suitable for high pressure, insufficient back pressure and high flow velocities.





### Ball check valves

AVK ball check valves are self-cleaning, as the ball rotates during operation which eliminates the risk of impurities getting stuck on the ball. The metal core is NBR rubber lined, and the rubber hardness is optimised to prevent the ball from getting stuck in the seat.

The standard balls are made with steel core in DN32-250, ductile iron core in DN300-400 and cast aluminium core in DN500-600.

This is done to achieve the correct characteristics for the balls during operation.

A full and smooth bore ensures full flow with low pressure loss and eliminates the risk of deposits at the bottom that could prevent tight closure.

The ball check valves are available in epoxy coated ductile iron with flanges in DN40-600 and with internal threads in DN32-50 as well as in acid-resistant stainless steel with flanges in DN80, 100 and 150 and with internal threads in DN32-80.

### Feature summary

- Self-cleaning construction
- Full and smooth bore ensures low head loss
- Tightness at minimum back pressure
- Polyurethane balls available for abrasive media
- Different ball weights available



### Balls dedicated for the application

Balls of polyurethane are suitable for abrasive media and when different balls weights are needed to prevent noise and water hammer. NBR rubber lined balls have a metal core of steel, aluminium or cast iron depending on the size.



# AIR VALVES

## HIGH CAPACITY AND RELIABLE FUNCTION



AVK combination air valves combine an air & vacuum orifice and an automatic air release orifice in a single body. The innovative design with a large air gap between liquid and sealing system ensures a reliable function even when used with aggressive liquids and liquids with solid particles.

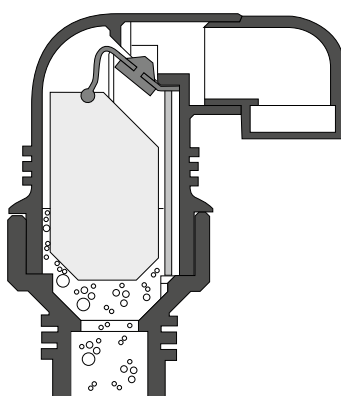
### Combined function

The valves combine large volume air discharge/intake whilst filling or draining a pipeline with automatic discharge of air not being dissolved in the fluid.

During filling of the line, air is released through the air & vacuum orifice until the line is full. During normal operation the automatic orifice releases trapped air accumulated in the line while the air & vacuum orifice remains closed. During emptying of the line, the air & vacuum orifice admits air to prevent vacuum damage.

### Features dedicated for wastewater

- Large air gap between liquid and sealing ensures reliable function
- Conical shape allows maximum air volume in a reduced valve size
- Funnel-shaped lower body prevents accumulation of deposits
- Low weight body of steel or reinforced nylon
- The large automatic orifice releases large volumes of air under pressure
- Spring between upper and lower float prevents unnecessary activation of the automatic function
- Drainage and flushing from external clean water source is possible
- An exhaust tube can be mounted in the threaded opening on the top of the valve
- Available in DN50-200



### Reliable valve function

**Automatic orifice:** When air bubbles appear in the valve, the float will drop, allowing air to be released. When water rises again, the float will be lifted, and the valve will close.

**Air & vacuum orifice:** When emptying the pipeline, the float will drop completely, allowing large volume air intake through the large orifice. When refilling, the water flow will force the air out through the large orifice.





#### Advantageous alternative

The underground system is a competitive solution compared to a typical chamber construction and offers convenient and fast access to maintenance from ground level, even when the system is under pressure.

When maintenance is needed the pressure is released by means of the ball valve, the knife gate shut-off valve is closed by means of the T-key, and the complete valve assembly is taken out for service or maintenance. Alternatively the system can be backflushed on site.



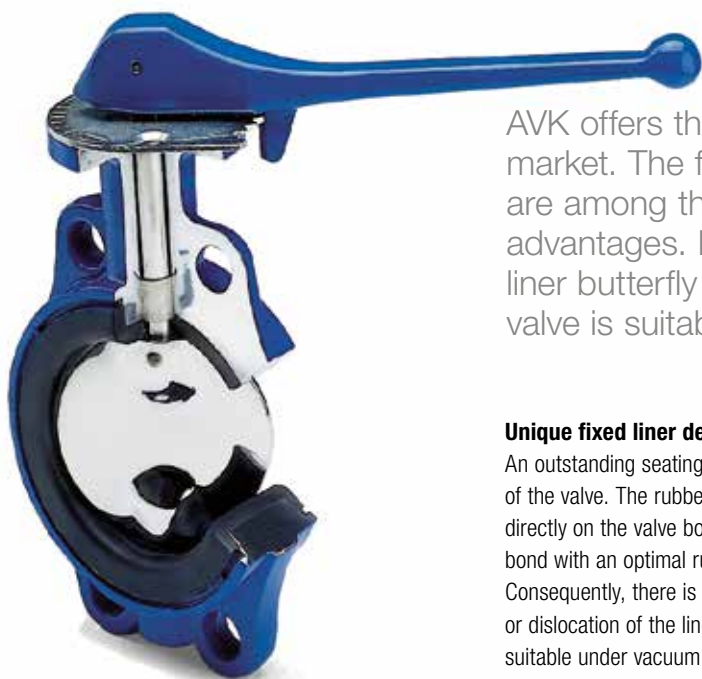
#### Corrosion resistant parts

The air valve is made of reinforced nylon, steel or stainless steel. The valve box is made of polyethylene and the connections of polypropylene. The ball valve, shut-off valve extension, T-key and the air valve bridge are of stainless steel.





# BUTTERFLY VALVES WITH FIXED LINER OR LOOSE LINER



AVK offers the widest range of butterfly valves at the market. The fixed liner butterfly valves from the AVK Group are among the very few of its kind and offer outstanding advantages. Furthermore, we offer a wide range of loose liner butterfly valves for applications where this type of valve is suitable.

## Unique fixed liner design

An outstanding seating concept is the heart of the valve. The rubber is injection moulded directly on the valve body forming a permanent bond with an optimal rubber shore hardness. Consequently, there is no risk of deformation or dislocation of the liner making the valves suitable under vacuum conditions.

The disc has a profiled sealing edge which requires minimal deformation of the liner to achieve a tight sealing. This gives less wear of the liner and low operating torques.

## Feature summary

- Fixed liner with no risk of deformation or dislocation, thus suitable under vacuum conditions
- AVK rubber liner with excellent ability to regain shape after compression
- Disc with profiled sealing edge gives less wear of liner
- Low operating torques due to fixed liner, profiled disc and shaft bearings
- Streamlined disc prevents turbulence, pressure drops and valve vibration
- Available as wafer, semilug, full lug, double flanged short and double flanged long in DN40-2000 with any type of actuation.

## No turbulence or pressure drops

The streamlined disc gives low flow resistance when the valve is open. Therefore, the valves will not cause any turbulence, pressure drops or valve vibration, and will reduce energy costs for the user.



## Profiled disc and unique AVK rubber ensure exceptional durability

The unique AVK rubber compound has an excellent ability to regain shape after compression, and this ability combined with the profiled disc secure tightness even after thousands of operation cycles.



### Wide range with loose liner

AVK's range of loose liner butterfly valves comprises wafer, lug and U-section butterfly valves in DN25-1600 with any type of actuation and with a wide selection of disc and liner materials.

The replaceable liner of EPDM for high temperatures (110 °C) has a very robust construction. Its convex form and integrated lip sealings in the shaft passage ensure a tight connection with the shaft. Moreover, the special shape ensures a unique grip to the body preventing any relative liner displacement during operation. The integrated gasket faces enable easy installation between flanges.



### Feature summary

- Stainless steel shaft with anti-blowout design and position indication
- Square driven disc mechanism with effective power transmission
- Disc of acid-resistant stainless steel with streamlined shape for optimum flow characteristics and polished edges for minimum wear of the liner
- Replaceable EPDM liner with a unique design
- Ductile iron body with extended neck for insulation and 200my fusion bonded epoxy coating

# PENSTOCKS COMPLEMENT THE WIDE RANGE



AVK's wide range of penstocks features low leakage rates, a heavy-duty construction and a modular design which enables easy customization.

The self-adjusting seal design offers easy operation and does not require on-site adjustments.

## **Overall design**

AVK penstocks feature a lower leakage rate than the max. allowable in DIN 19569-4. The heavy-duty construction ensures long service life and the modular design makes it possible to offer customised penstocks with a short delivery time.

The penstocks are as standard of stainless steel AISI 304 and optionally of acid-resistant stainless steel AISI 316. We offer different material combinations as well as several mounting configurations and many types of extensions, accessories and actuators.

## **Unique sealing design**

Self-cleaning guides of HMWPE (high molecular weight polyethylene) reduce the friction during operation giving easy operation and extended seal durability.

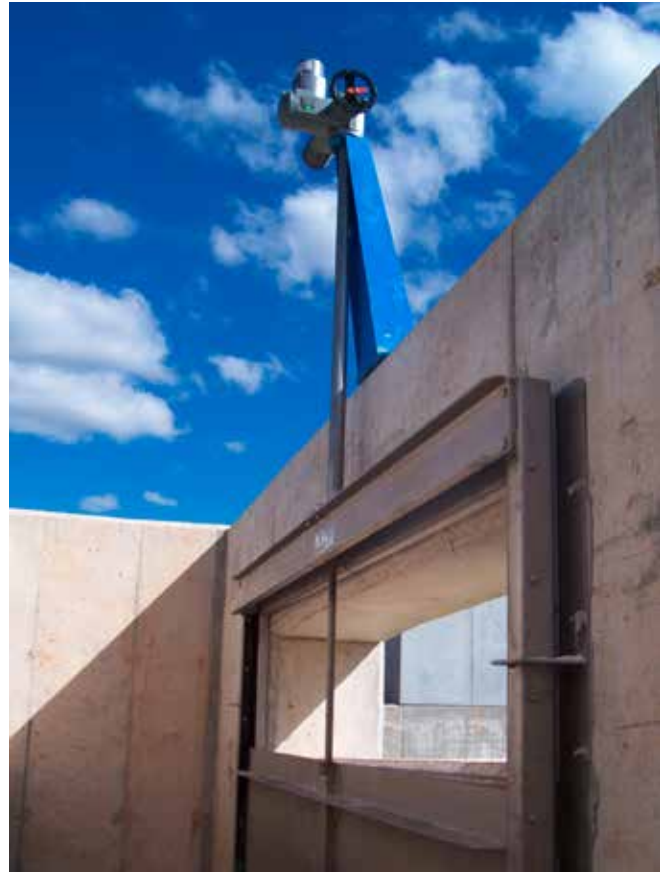
The self-adjusting "lip-design" sealing seals without the need of wedges. This gives small torques during opening and closing, which allows the use of a smaller size actuator than typically required. Furthermore, it does not require on-site adjustments and it prevents vibration during operation.



## **Sealing design**

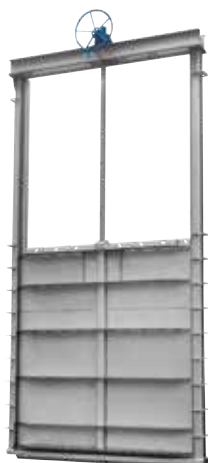
Self-cleaning guides reduce the friction and the self-adjusting "lip-design" sealing ensures low torques during operation.





### Features

- Heavy-duty construction with min. 6 mm slide thickness
- Self-cleaning guides ensure easy operation and long durability
- Self-adjusting lip-design sealing prevents vibration and offer low torques
- Low torques allow use of a smaller size actuator
- Option of supplying design calculations (FEM and analytical)
- Bi-directional up to and incl. 1200 x 1200 mm, in larger sizes bi- or uni-directional
- With handwheel up to and incl. 1000 x 1000 mm, in larger sizes with bevel gear
- For wall mounting up to and incl. 1200 x 1200 mm as standard. In larger sizes also available for embedding in concrete and for invert flush bottom mounting
- The flange-back frame in sizes above 1200 x 1200 mm ensures that the sealing performance is not affected by uneven walls
- 10 mWc on-off up to 1000 x 1000 mm and 6 mWc on-off for 1200 x 1200 mm



# A WIDE SELECTION OF ACTUATION SOLUTIONS



To match our range of gate valves, knife gate valves, butterfly valves and penstocks, AVK offers a selection of levers, handwheels and gearboxes as well as pneumatic and electric actuators. From manually operated solutions to advanced systems operated remotely, the actuators contribute to efficient flow management and control precision.

## **Standard solution or to specifications**

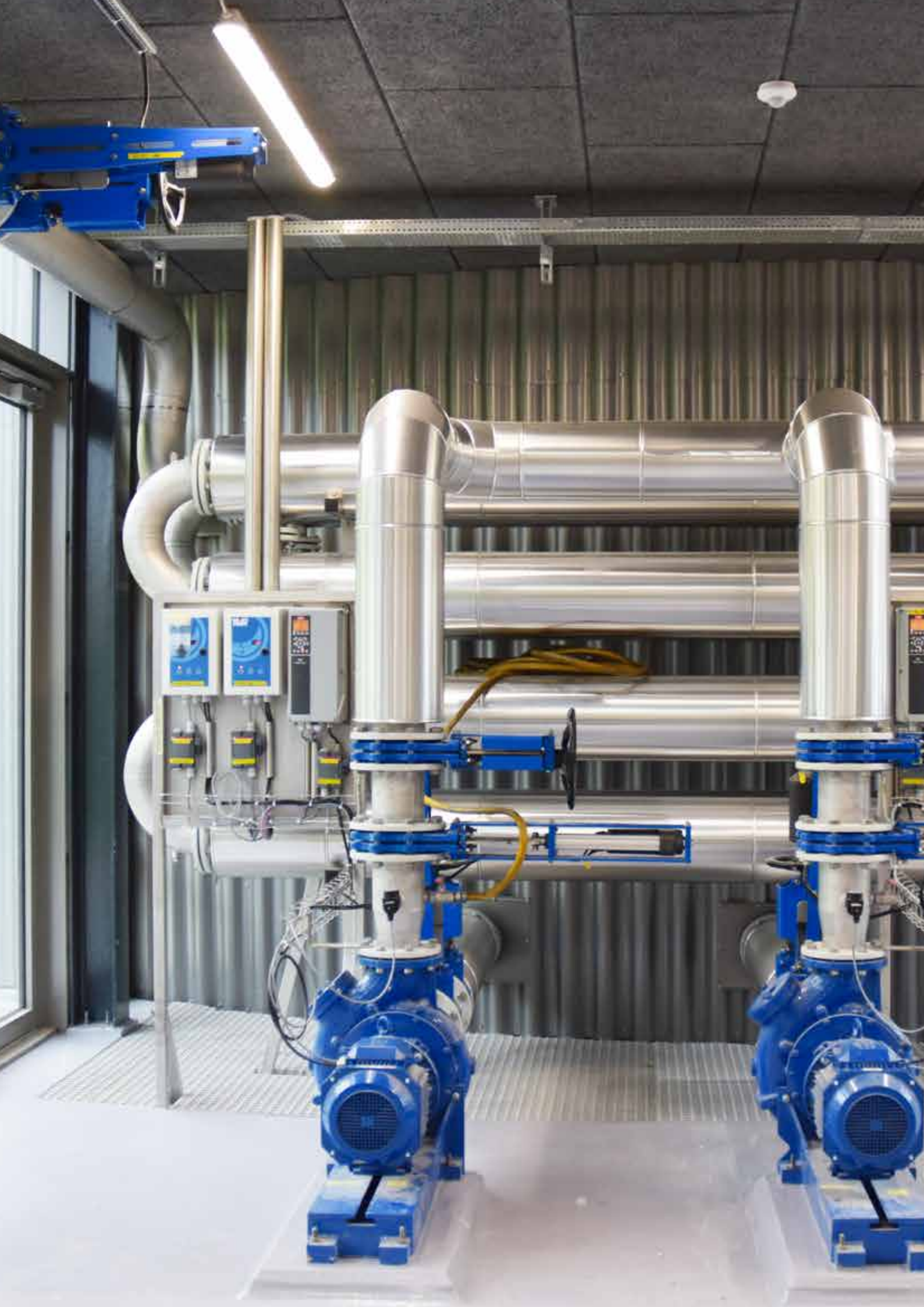
AVK has defined a standard range of actuation solutions of a high quality at a competitive price. For our knife gate valves and penstocks we make our own pneumatic actuators. All actuators are factory mounted on our valves to ensure a durable and safe solution.



# ELECTRIC, PNEUMATIC OR MANUAL ACTUATION

| Electric actuation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pneumatic actuation, linear                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Pneumatic actuation, quarterturn                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Linear actuator</p>  <p>Multiturn actuator, basic, local/remote and fieldbus</p>  <p>Quarterturn actuator</p>  <p>Quarter- and multiturn actuator</p> |  <p>Double acting actuator</p>  <p>Solenoid valves 5/2-ways</p>  <p>Proximity switch for gate valves</p>  <p>Proximity switch for knife gate valves</p> |  <p>Double acting or single acting actuator</p>  <p>Solenoid valves 5/2-ways or 3/2-ways</p>  <p>Proximity switch and receiver</p>  <p>Switch box</p>  <p>Positioner</p> |
| Manual actuation, gear                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Manual actuation, handwheel                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Manual actuation, lever                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|  <p>Bevelgear for penstocks and knife gate valves</p>  <p>Wormgear for butterfly valves</p>  <p>Chainwheel for knife gate valves</p>                                                                                                       |  <p>Handwheel for penstocks</p>  <p>Handwheel for knife gate valves</p>  <p>Handwheel for gate valves</p>                                                                                                                                |  <p>Lever for knife gate valves</p>  <p>Lever for butterfly valves</p>                                                                                                                                                                                                                                                                                                                                                               |





# RENOVATED PLANT WITH GROUND- BREAKING TECHNOLOGIES

With the use of new technologies and energy-optimising equipment, the aim was to make the plant energy self-sufficient, and even produce 50% more energy than is consumed.

The renovation of Egaa Wastewater Treatment Plant was initiated to gain a maximum energy output, and a fruitful collaboration with leading suppliers of technologies, processes and components made this possible. Vatech 2000 was among the suppliers and has delivered AVK knife gate valves and butterfly valves for the project along with Vatech penstocks and ball valves.

## **Cleaning of nitrogen with anammox bacteria**

With the establishment of a DEMON® anammox reject water plant, the electricity consumption for nitrogen cleaning is reduced. Anammox bacteria are generated in the cleaning process and in addition to cleaning reject water, they also clean the wastewater in the process tanks without any use of carbon.

## **Carbon filtering with Salsnes® filters**

Norwegian Salsnes® has developed strip filters that are used early in the process to filter carbon from the wastewater. These filters reduce aeration energy consumption, previously accounting for about 40% of total energy consumption, since less carbon is discharged to the process tanks. The concentration of solid in the primary sludge which is extracted from the strip filters is so high that pre-dewatering can be avoided. Primary sludge and biological sludge are both pumped into the digestion tank, where biogas is generated.

## **Optimum utilisation of biogas**

Furthermore, optimum utilisation of biogas is ensured by installing a highly efficient gas generator plant, where biogas is used for the production of electricity and heat. Also, excess heat energy is used to produce an additional 10% electricity by using an Organic Rankine Cycle (ORC). This helps reach the objective of an energy production that is 50% higher than energy consumption.



Sludge from the bottom of the clarification zone in the DEMON® tank is pumped back to the process as return sludge, and excess sludge is pumped into a cyclone, where anammox bacteria are sifted out.



AVK knife gate valves with linear actuators on a reject water pipeline. The linear actuators were chosen, since they are energy efficient compared to actuators using compressed air



In the digestion tank sludge is recirculated through a heat exchanger.



After fermentation, sludge is transported to a sludge buffer storage before final dewatering.



# GATE VALVES AND KNIFE GATE VALVES



## Series 06/80

Flanged gate valve  
Short face to face DIN F4  
NBR wedge  
Stainless steel stem  
Ductile iron  
DN40-600 and 800-1000  
From DN450 with ISO top flange



## Series 06/84

Flanged gate valve  
Short face to face DIN F4  
NBR wedge  
AISI 316 stem  
Ductile iron  
DN40-600 and 800  
From DN450 with ISO top flange



## Series 06/35

Flanged gate valve  
with position indicator and handwheel  
Short face to face DIN F4  
EPDM wedge  
Ductile iron  
DN50-400

Options:

- NBR wedge
- DIN F5, 02/66



## Series 15/42

Flanged gate valve  
ISO flange for electric actuator  
Short face to face DIN F4  
EPDM wedge  
Ductile iron  
DN40-400

Options:

- DIN F5, 15/72
- hydraulic/pneumatic actuator
- NBR wedge



## Series 21

Flanged gate valve  
with rising stem and handwheel  
The handwheel can be replaced by an actuator on site  
Short face to face DIN F4  
EPDM wedge  
Ductile iron  
DN50-400



## Series 715

Flanged gate valve  
with pneumatic actuator  
NBR wedge  
Short face to face DIN F4  
Ductile iron  
DN65-300

Options:

- solenoid valve kit and proximity switches



## Series 702/10

Knife gate valve  
with non-rising stem and handwheel  
Ductile iron  
DN50-1200

Options:

- other materials



## Series 702/20

Knife gate valve  
with rising stem and handwheel  
Ductile iron  
DN50-1200

Options:

- other materials



## Series 702/00 and 702/10

Knife gate valve  
with lever  
Ductile iron  
DN50-150

Options:

- other materials



## Series 702/40

Knife gate valve  
with double acting pneumatic actuator  
Ductile iron  
DN50-1000

Options:

- other materials



## Series 702/50

Knife gate valve  
with ISO top flange prepared for actuator  
Ductile iron  
DN50-1200

Options:

- other materials



## Series 702/73

Knife gate valve  
with linear actuator  
Ductile iron  
DN50-300

Options:

- other materials



# SERVICE CONNECTION VALVES, CHECK VALVES AND PENSTOCKS



## Series 03/30

Service connection valve  
with tensile socket ends  
for PE pipes  
PN 16  
Ductile iron  
DN20-50

### Options:

- for side tapping with  
internal thread /  
external thread



## Series 16/54

Service connection valve  
with tensile socket ends  
for PE pipes  
PN 16  
POM (Polyoxymethylene)  
DN25-50



## Series 53/35

Ball check valve  
with flanges  
Ductile iron  
DN40-600



## Series 53/42

Ball check valve  
with flanges  
Acid-resistant stainless  
steel  
DN80-150



## Series 53/30

Ball check valve  
with internal BSP threads  
Ductile iron  
DN32-50



## Series 53/40

Ball check valve  
with internal BSP threads  
Acid-resistant stainless  
steel  
DN32-80



## Series 41/60

Swing check valve  
with free shaft end  
Resilient seated  
Ductile iron  
DN40-300

### Options:

- with lever and weight
- with lever and spring



## Series 41/61

Swing check valve  
with closed bushings  
Resilient seated  
Ductile iron  
DN50-300



## Series 41/36

Swing check valve  
with lever and weight  
Metal seated  
Ductile iron  
DN350-600

### Options:

- with free shaft end,  
41/39



## Series 772/61

Wall penstock  
Bi-directional up to and  
incl. 1200 x 1200 mm,  
in larger sizes bi- or uni-  
directional  
With non-rising stem  
Stainless steel AISI 304  
200 x 200 mm - 2000 x  
2000 mm

### Options:

- rising stem
- AISI 316

# BUTTERFLY VALVES, AIR VALVES AND Y-STRAINERS



**Series 75/10**  
Centric butterfly valve  
with fixed liner  
Wafer  
Ductile iron  
DN40-1000  
With any type of  
actuation



**Series 75/31**  
Centric butterfly valve  
with fixed liner  
Semi-lug  
Ductile iron  
DN50-300  
With any type of  
actuation

Options:  
• full lug, 75/41



**Series 75/20**  
Centric butterfly valve  
with fixed liner  
Double flanged short  
Ductile iron  
DN50-2000  
With any type of  
actuation

Options:  
• double flanged long,  
75/21



**Series 820/00**  
Centric butterfly valve  
with loose liner  
Wafer  
Ductile iron  
DN25-1000  
With any type of  
actuation



**Series 820/10**  
Centric butterfly valve  
with loose liner  
Lug  
Ductile iron  
DN25-600  
With any type of  
actuation



**Series 820/20**  
Centric butterfly valve  
with loose liner  
U-section  
Ductile iron  
DN150-1600  
With any type of  
actuation



**Series 701/75**  
Combination air valve  
Orifice sizes:  
Automatic: 12 mm<sup>2</sup>  
Kinetic: 804 mm<sup>2</sup>  
Reinforced nylon  
Inlet flange or 2 1/3" BSP  
thread  
PN 10  
DN50-100

Options:  
• PN 16, 701/95



**Series 701/96**  
Combination air valve  
Orifice sizes:  
Automatic: 12 mm<sup>2</sup>  
Kinetic: 804 mm<sup>2</sup>  
Stainless steel  
Inlet flange or 2" BSP  
thread  
PN 16  
DN50-200

Options:  
• steel, 701/70



**Series 701/78**  
Combination air valve  
Orifice sizes:  
Automatic: 16 mm<sup>2</sup>  
Kinetic: 5024 mm<sup>2</sup>  
Steel  
Inlet flange  
PN 16  
DN80-200



**Series 701/79**  
Underground air valve  
system  
Valve box of polyethylene,  
Any of the above air  
valves can be mounted in  
the system  
PN 10  
DN80-100



**Series 701/33**  
Air & vacuum valve  
Orifice size: 5026 mm<sup>2</sup>  
Steel  
Inlet flange  
PN 16  
DN80-100



**Series 910**  
Y-strainer  
PN 10/16  
Ductile iron  
DN50-300

# FLANGE ADAPTORS, COUPLINGS AND REPAIR PRODUCTS



**Series 05**  
Combi-flange  
Tensile for PE, uPVC or  
GGG pipes  
DN50-300

Options:  
• non-tensile



**Series 631**  
Supa Maxi™ straight  
coupling  
Universal and tensile  
for all pipes  
Ductile iron  
DN50-800

Options:  
• end cap, 634



**Series 632**  
Supa Maxi™ step  
coupling  
Universal and tensile  
for all pipes  
Ductile iron  
DN50-300



**Series 633**  
Supa Maxi™ flange  
adaptor  
Universal and tensile  
for all pipes  
Ductile iron  
DN40-800



**Series 601**  
Supa® coupling  
Universal for cast iron,  
ductile iron, steel, uPVC  
and asbestos cement  
pipes  
Ductile iron  
DN40-400

Options:  
• step coupling, 602



**Series 603**  
Supa® flange adaptor  
Universal for cast iron,  
ductile iron, steel, uPVC  
and asbestos cement  
pipes  
Ductile iron  
DN40-400



**Series 623**  
Supa Plus™ flange  
adaptor  
Tensile for PE and  
uPVC pipes  
Ductile iron  
DN40-300

Options:  
• coupling, 621  
• end cap, 624



**Series 745/01**  
Repico® grip coupling  
Universal and tensile for  
all metal pipes  
Stainless steel AISI 316  
NBR or EPDM sealing  
DN15-400

Options:  
• for medium pressure up  
to DN200



**Series 745/20**  
Repico® slip coupling  
Universal for all pipe types  
Non-tensile  
Stainless steel AISI 316  
NBR or EPDM sealing  
DN15-600

Options:  
• 2 locks up to DN1000



**Series 748/02**  
Repair clamp  
Double band  
Stainless steel AISI 304  
or AISI 316  
NBR or EPDM rubber

Options:  
• handgrip  
• single band  
• triple band



**Series 8001**  
Hydro Stop universal  
socket encapsulation  
collar  
Steel  
EPDM rubber  
DN250-2000

Options:  
• pipe encapsulation  
collar  
• customised design and  
larger DN



**Series 8002**  
Hydro Fast dedicated  
socket encapsulation  
collar  
Steel  
EPDM rubber  
DN300-2000

Options:  
• Hydro Smart DN80-250  
• pipe encapsulation  
collar  
• customised design and  
larger DN



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2025.11.12  
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