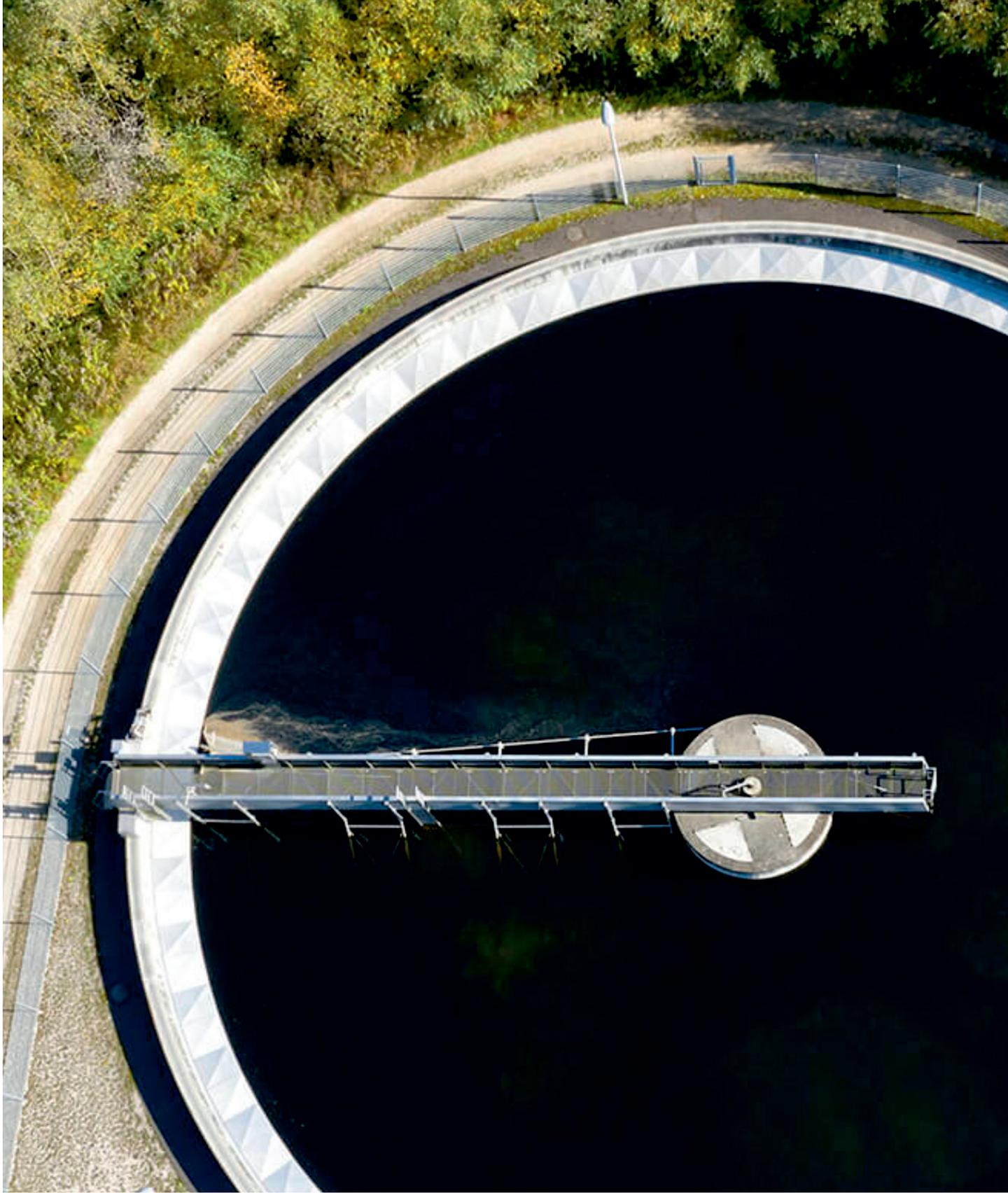


AVK WASTEWATER - PRODUCT RANGE

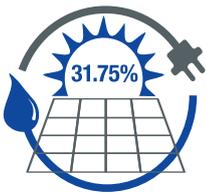


**WASTEWATER
SOLUTIONS PROVIDER
SOUTHERN AFRICA**





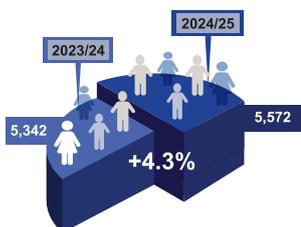
AVK YOUR LONG-TERM PARTNER



SHARE OF
renewable energy



SUSTAINABILITY
function established



NUMBER OF
employees

AVK Valves Southern Africa is ready to captain industry for the decades to come. Anchored by unwavering customer support, AVK is ready to be your dedicated partner for your future success and growth.



AVK Group stands as one of the world's foremost valve manufacturers. Our Water Division specializes in valves and accessories for water distribution, wastewater treatment, and fire protection. Meanwhile, our Industrial Division focuses on water treatment valves for industrial applications. With our specialised subsidiaries, we offer a comprehensive product range suited for high temperatures and high-pressure applications.

You can be assured that AVK Valves Southern Africa operates at a high level of efficiency and effectiveness strengthened by our ISO 9001:2015 & ISO45001:2018 Certifications, and our products can be manufactured to meet different International and Local specification requirements (ISO, BS EN, DIN, API, SANS, etc.)

AVK is ranked among the top 10 in the global industrial valve rankings.

The AVK Valves Southern Africa range

AVK Valves Southern Africa, a valve manufacturing company, has been a leader in the South African valve industry for 30 years. We specialise in manufacturing custom-designed valves at the highest levels of quality, reliability, and value. Here's a summary of our offerings:

Reliability and purity are paramount in water supply. AVK products are celebrated for their superior quality, driven by our market-leading expertise in rubber compounds. With our own vulcanisation and coating facilities, combined with worldwide approvals for drinking water, we ensure maximum safety and durability.

With 30 years in the valve industry, AVK Valves Southern Africa now offers solutions for various applications. Our extensive range includes gate valves, butterfly valves, control valves, check valves, needle valves, air valves, service

connection valves, and hydrants. Additionally, we provide flange adaptors, couplings, fittings, tapping saddles, repair clamps, surface boxes, and valve accessories.

Global leadership and Commitment

Our global reach extends across various regions, but our core focus remains local.

Our customers benefit from dedicated local sales organizations, including AVK's own sales companies and competent distributors.

By understanding our customers unique requirements, we provide tailor-made solutions that align with local specifications.

CORE BUSINESS

PART OF VITAL INFRASTRUCTURES

AVK, a global leader, has been providing gate valves to the water supply sector since its establishment in 1996. Our extensive product range includes gate valves, butterfly valves, check valves, air valves and more.

AVK remains a trusted supplier to the Water Treatment, Water supply and Wastewater Treatment industries offering a wide range of valves adhering to all major standards and providing customised solutions.

AVK VALVES SOUTHERN AFRICA

- **Valves provision of uncontaminated drinking water** and prevention of water wastage in the distribution network.
- **Valves are efficient for the treatment and management of wastewater** from both households and industries.



**SUSTAINABLE
DEVELOPMENT
GOALS**

TRUSTED WASTEWATER SOLUTIONS FOR TOUGH CONDITIONS

Wastewater is a reality of modern life, shaped by domestic, industrial, commercial, and agricultural activities, as well as rain and stormwater. Managing it effectively is essential to protect communities, safeguard the environment, and ensure sustainable development.



Solutions for wastewater collection, treatment, and outlet, must be engineered to meet demanding conditions resisting corrosion, pressure, and environmental challenges while ensuring the safety of surrounding soils and areas.

Wastewater systems must endure decades of use under harsh circumstances. That is why the solutions presented here are built to last, offering reliability and resilience where it matters most. From treatment plants to collection networks, these products support the secure and efficient movement of wastewater, helping industries and municipalities meet today's challenges and tomorrow's needs.

AVK contributes its expertise and experience to this vital sector, ensuring that wastewater management is not only possible but dependable for generations.

Key Processes

Extraction Phase

This phase focuses on removing unwanted materials from raw wastewater before deeper treatment begins. Key steps include:

Screening & Grit Removal – Large debris, plastics, and sand are mechanically filtered out to protect downstream equipment.

Primary Sedimentation – Heavier solids settle at the bottom, forming sludge, while lighter materials float and are skimmed off.

Oil & Grease Separation – Specialized traps or skimmers remove fats, oils, and grease that can clog systems.

Flow Control Valves – AVK valves ensure precise regulation of inflow, protecting treatment plants



from overload and maintaining efficiency.

Purpose: To extract physical contaminants and stabilize flow

Transformation Phase

Once contaminants are extracted, wastewater undergoes chemical and biological transformation to make it safe for discharge or reuse. Key steps include:

Biological Treatment (Activated Sludge, Biofilm Reactors) – Microorganisms break down organic matter, reducing biochemical oxygen demand (BOD).

Nutrient Removal – Processes such as nitrification/denitrification and phosphorus removal transform harmful nutrients into harmless forms.

Chemical Treatment – Coagulation, flocculation, and disinfection (chlorination, UV, or ozone) neutralize pathogens and fine particles.

Advanced Filtration & Membrane Technologies – Reverse osmosis or ultrafiltration further purify water for reuse in industrial or municipal systems.

Valve Applications

AVK valves play a critical role in dosing chemicals, controlling aeration, and managing effluent discharge with precision.

Purpose: To transform wastewater into environmentally safe effluent, protecting ecosystems and enabling water reuse.

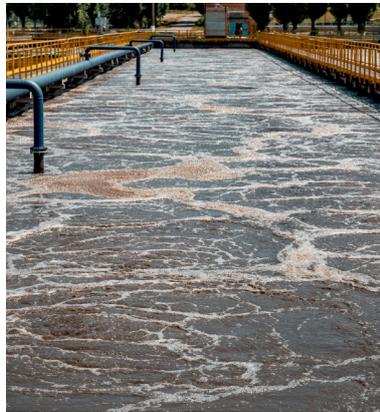
WASTEWATER COLLECTION



Wastewater collection is the backbone of modern sanitation systems. It ensures that sewage and industrial effluents are safely transported away from homes, businesses, and public spaces to treatment facilities where they can be processed responsibly. Without efficient collection networks, untreated wastewater would seep into rivers, groundwater, and soil posing serious risks to public health, ecosystems, and long-term sustainability.

Why Wastewater Collection Matters

- **Public Health Protection:** Proper collection prevents the spread of waterborne diseases such as cholera, dysentery, and typhoid.
- **Environmental Sustainability:** By channeling wastewater to treatment plants, communities reduce pollution in rivers, lakes, and oceans.
- **Urban Resilience:** Growing cities depend on reliable wastewater infrastructure to handle increasing volumes of sewage and industrial discharge.
- **Resource Recovery:** Modern treatment facilities can reclaim water, nutrients, and energy from collected wastewater, turning a challenge into an opportunity.



The Infrastructure Behind Collection

Wastewater collection systems rely on a network of underground pipelines, pumping stations, and control mechanisms. These systems must withstand high volumes, variable pressures, and corrosive conditions. Any failure whether through leakage, blockages, or valve malfunction can compromise the entire network, leading to contamination and costly repairs.

- **Ensure Flow Control:** Regulating wastewater movement through pipelines and pumping stations.
- **Prevent Backflow:** Protecting communities from contamination caused by reverse flows.
- **Reliability:** Built to withstand harsh conditions, AVK valves reduce downtime and maintenance costs.
- **Support Sustainability:** By enabling efficient wastewater transport, they contribute to cleaner water sources and healthier ecosystems.

As urbanization and industrial activity expand across Southern Africa, the demand for robust wastewater collection systems will only grow. AVK Valves Southern Africa continues to innovate, ensuring that communities have the infrastructure needed to protect public health and preserve the environment.

WASTEWATER COLLECTION - VALVES



Series 37/50
Flanged gate valve
Metal seated
BS5163
Ductile iron
PN16
Clockwise to close
DN50-300



Series 43/60
Flanged gate valve
Face-to-face to SANS/
EPDM rubber
Ductile iron

- Options:
- Flange drilling to PN16 Tab. D or BS10 D
 - Clockwise to open or clockwise to close
 - DN50-600



Series 01/80-036
Euro groove socket end gate valve, bare shaft, for uPVC pipes. Design to SANS 664 for PN1016.
Ductile iron
EPDM drinking water approved
Blue epoxy RAL 5017 250 µm
Clockwise to Close
Available as locally manufactured



Series 41/60
Swing check valve
Face-to-face to EN558-48
Ductile iron
DN50-300
Drinking Water



Series 41/61
Swing check valve
Face-to-face to EN558-48
Ductile iron
DN50-300
Drinking Water



Series 910/21-001
Y-strainer with screen, plug and fasteners in SS-304 Ductile iron
EPDM high temperature
Blue epoxy RAL 5017 250 µm



Series 910/11-001
Y-strainer
Stainless steel screen
PN16-25
DN50-600
Drinking and Waste Water



Series 1410/35-001
Tilting Disc Check Valve, model RM
Face-to-face dimension according to EN 558, basic series 16
Stainless steel
Options: Available with Counter lever and weight or spring. Larger sizes on request



Series 6137, PN10 - PN16 - PN25 - PN40
Boving Double Eccentric Butterfly Valve
Soft seal in EPDM
S.G. Iron body and disc
Bare shaft
Various gearbox and actuation options



Series 820/00
Centric butterfly valve
Wafer type with centering lugs
Loose liner
Bare shaft
DN25-1000



Series 756
Double Eccentric butterfly valve, bare shaft
Ductile iron body and disc with epoxy coating
Integral Body Seat
Stainless steel shaft with self-lubricating bearings
Short face-to-face
Designed to EN593 Face-to-face according to EN558 T2



Series 53/35-005
Ball check valve, flanged, tbl. D, A2 bolts/zinc-coated A4 nuts
Face-to-face dimension according to EN 558, basic series 48
Ductile iron
NBR rubber

WASTEWATER COLLECTION - VALVES



Series 779/65-001

Heavy duty knife gate valve, long, WG model, flanged DI body, SS-404 blade, EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/61-002

Knife gate valve, short wafer type, VG model, CF8M (SS-316 cast stainless steel body, SS-316 blade; EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Stainless steel
EPDM rubber



Series 779/68-001

Knife gate valve, long, HG model, flanged DI body, SS-304 blade, PTFE packing, EPDM seal, handwheel/gearbox, class 150, 20 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/91-001

Knife gate valve, short wafer type CI body, SS-304 blade, PTFE packing, EPDM seal, handwheel/gearbox, 5-10 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/X-084

Knife gate valve, short wafer type, VG model, DI body, SS-304 blade, EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Ductile iron



Series 75/62-101

EN1092 flanged butterfly valve, DI body, fixed EPDM liner, duplex disc 1.4470 and shaft 1.4462, Dif. P 16bar, orange coating, bare shaft (WW ref. EVFS-i)
Face-to-face dimension according to EN 558, basic series 13
Ductile iron
EPDM rubber
T014-C254
Clockwise to Close



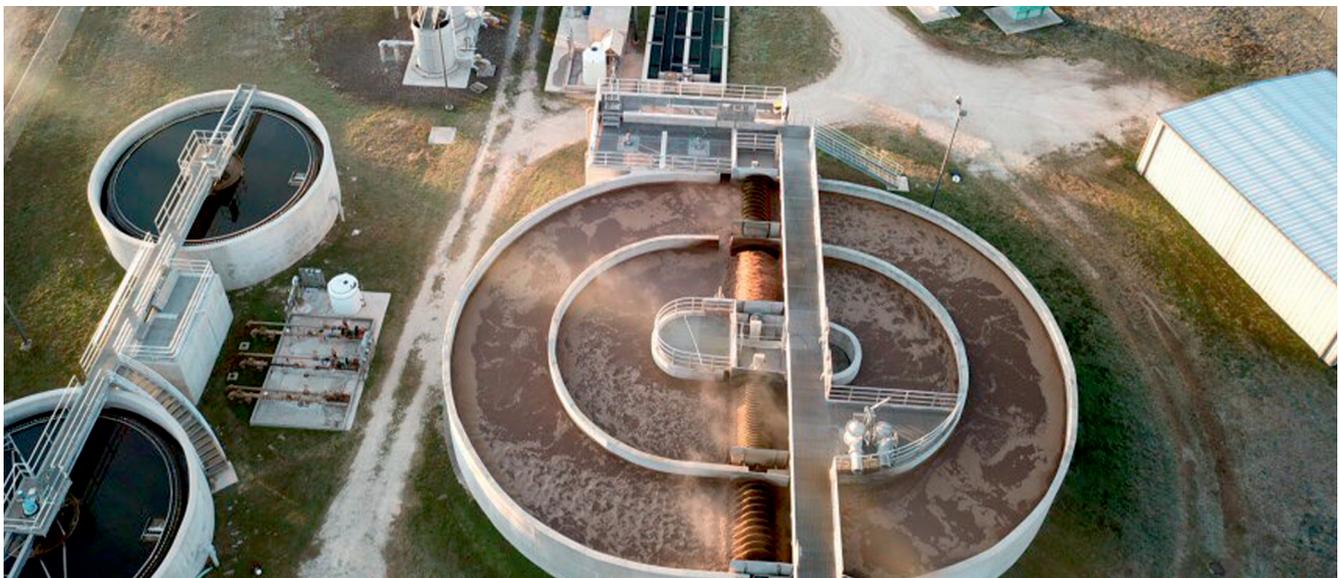
Series 75/64-101

Centric butterfly valve, wafer type w/centering lugs, DI body, fixed EPDM liner, duplex disc 1.4470 and shaft 1.4462, Dif. P 16bar, orange coating, bare shaft (WW ref. EVCS-i)
Face-to-face dimension according to EN 558, basic series 20
Ductile iron
EPDM rubber
T014-C254



Series 75/61-101

Centric butterfly valve, wafer type, EN1092 flanged, short EN558/20, fixed EPDM lining, DI body, duplex disc/shaft, dif. P16 bar, coating orange, bare shaft (WW ref. EVS-i)
Face-to-face dimension according to EN 558, basic series 20
Ductile iron
EPDM rubber
T014-C254



WASTEWATER TREATMENT



As industries and municipalities continue to expand, the demand for effective wastewater treatment infrastructure has never been greater. Without proper systems in place, untreated sewage and industrial effluent can contaminate rivers, groundwater, and soil—posing risks to public health, ecosystems, and longterm water security. Treatment facilities are therefore essential not only for managing waste but also for enabling water reuse initiatives that support sustainability.

What Wastewater Treatment Involves

Wastewater treatment is a multi-stage process designed to remove contaminants, solids, and harmful chemicals before water is safely released back into the environment or reused for non-potable purposes.

Treatment facilities can reclaim water, nutrients, and energy from collected wastewater, turning a challenge into an opportunity

The process typically includes:

- **Preliminary Treatment:** Screening and grit removal to eliminate large debris and sand.
- **Primary Treatment:** Sedimentation tanks separate suspended solids from liquid waste.
- **Secondary Treatment:** Biological processes, such as activated sludge or biofilm reactors, break down organic matter.
- **Tertiary Treatment:** Advanced filtration, chemical treatment, or disinfection to remove nutrients, pathogens, and trace pollutants.



Each stage ensures that wastewater is progressively purified, reducing its environmental impact and making it suitable for reuse in agriculture, industry, or landscaping.

Why It Matters

- **Public Health Protection:** Prevents the spread of waterborne diseases.
- **Environmental Preservation:** Reduces pollution in rivers, lakes, and oceans.
- **Resource Recovery:** Enables the extraction of nutrients, biogas, and reclaimed water.
- **Sustainable Growth:** Supports municipalities and industries in meeting environmental regulations and future water demands.

One of the most promising aspects of modern wastewater treatment is its role in water reuse initiatives. Treated water can be repurposed for irrigation, industrial cooling, or even replenishing groundwater supplies. This not only conserves freshwater resources but also builds resilience against droughts and climate change.

Key Products

- **Gate Valve** - isolation
- **Knife Gate Valves** - Sludge, grit an high solids application
- **Check Valves** - protect down stream pumps

WASTEWATER TREATMENT - VALVES



Series 43/60

Flanged gate valve
Face-to-face to SANS/
EPDM rubber
Ductile iron

Options:

- Flange drilling to PN16 Tab. D or BS10 D
- Clockwise to open or clockwise to close
- DN50-600



Series 01/80-036

Euro groove socket end gate valve, bare shaft, for uPVC pipes. Design to SANS 664 for PN10/16.

Ductile iron
EPDM drinking water approved
Blue epoxy RAL 5017 250 µm
Clockwise to Close
Available as locally manufactured



Series 41/60

Swing check valve
Face-to-face to EN558-48
SANS664 coating
Ductile iron
DN50-300
Drinking Water



Series 41/61

Swing check valve
Face-to-face to EN558-48
SANS664 coating
Ductile iron
DN50-300
Drinking Water



Series 910/21-001

Y-strainer with screen, plug and fasteners in SS-305 Ductile iron
EPDM high temperature
Blue epoxy RAL 5017 250 µm



Series 910/11-001

Y-strainer
Stainless steel screen
PN16-25
DN50-600
Drinking and Waste Water



Series 1410/35-001

Tilting Disc Check Valve, model RM
Face-to-face dimension according to EN 558, basic series 16
Stainless steel
Options: Available with Counter lever and weight or spring. Larger sizes on request



Series 6137, PN10 - PN16 - PN25 - PN40

Boving Double Eccentric Butterfly Valve
Soft seal in EPDM
S.G. Iron body and disc
Bare shaft
Various gearbox and actuation options



Series 869/200X-001

Reduced bore control valve, pressure reducing, SS-304/DI trim, PN10/16
Face-to-face dimension according to EN 558, basic series 1
Ductile iron
EPDM rubber, WRAS approved
Blue epoxy RAL 5017 300µm



Series 756

Double Eccentric Butterfly Valve, bare shaft
Ductile iron body and disc with epoxy coating
Integral Body Seat
Stainless steel shaft with self-lubricating bearings
Short face-to-face
Designed to EN593 Face-to-face according to EN558 T2

WASTEWATER TREATMENT - VALVES



Series 779/65-001

Heavy duty knife gate valve, long, WG model, flanged DI body, SS-404 blade, EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/61-002

Knife gate valve, short wafer type, VG model, CF8M (SS-316 cast stainless steel) body, SS-316 blade; EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Stainless steel
EPDM rubber



Series 779/68-001

Knife gate valve, long, HG model, flanged DI body, SS-304 blade, PTFE packing, EPDM seal, handwheel/gearbox, class 150, 20 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/91-001

Knife gate valve, short wafer type CI body, SS-304 blade, PTFE packing, EPDM seal, handwheel/gearbox, 5-10 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/X-084

Knife gate valve, short wafer type, VG model, DI body, SS-304 blade, EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Ductile iron



Series 75/62-101

EN1092 flanged butterfly valve, DI body, fixed EPDM liner, duplex disc 1.4470 and shaft 1.4462, Dif. P 16bar, orange coating, bare shaft (WW ref. EVFS-i)
Face-to-face dimension according to EN 558, basic series 13
Ductile iron
EPDM rubber
T014-C254
Clockwise to Close



Series 75/64-101

Centric butterfly valve, wafer type w/centering lugs, DI body, fixed EPDM liner, duplex disc 1.4470 and shaft 1.4462, Dif. P 16bar, orange coating, bare shaft (WW ref. EVCS-i)
Face-to-face dimension according to EN 558, basic series 20
Ductile iron
EPDM rubber
T014-C254



Series 75/61-101

Centric butterfly valve, wafer type, EN1092 flanged, short EN558/20, fixed EPDM lining, DI body, duplex disc/shaft, dif. P16 bar, coating orange, bare shaft (WW ref. EVS-i)
Face-to-face dimension according to EN 558, basic series 20
Ductile iron
EPDM rubber
T014-C254



WASTEWATER OUTLET



Wastewater outlets represent the final stage in the treatment journey, where purified water is safely discharged into natural environments, irrigation systems, or reuse networks. While much attention is often given to the treatment process itself, the outlet is equally vital it ensures that all the efforts made upstream translate into safe, sustainable outcomes downstream.

The Wastewater Outlet Process

The outlet process is designed to manage the transition from treatment to discharge.

Its functions include:

- **Flow Regulation:** Outlets maintain a consistent discharge rate, preventing sudden surges that could erode riverbanks, overwhelm irrigation systems, or disrupt reuse networks.
- **Backwash Prevention:** Specialized valves and outlet structures stop untreated or contaminated water from flowing back into treatment facilities, protecting system integrity.
- **Quality Assurance:** Outlets are often equipped with monitoring systems to ensure that only water meeting regulatory standards is released.
- **Environmental Integration:** Outlets are engineered to minimize ecological disruption, dispersing water in ways that protect aquatic habitats and soil health.



Why Wastewater Outlets Matter

- **Consistent Flow:** Outlets regulate the release of treated water, preventing sudden surges that could damage ecosystems or infrastructure.
- **Backwash Prevention:** Properly engineered outlets stop contaminated water from flowing back into treatment systems, safeguarding efficiency and hygiene.
- **Environmental Protection:** By controlling discharge, outlets minimize erosion, protect aquatic habitats, and maintain water quality standards.
- **Support for Reuse Systems:** Outlets channel

As water demand grows and environmental regulations tighten, wastewater outlets will continue to evolve. Their role in ensuring consistent flow, preventing backwash, and supporting long-term sustainability makes them indispensable to modern wastewater management.

The wastewater outlet is not just the end of the treatment process, it is the gateway to a cleaner, safer, and more sustainable future.

Key Products

- Gate Valve
- Knife Gate Valves
- Check Valves

WASTEWATER OUTLET - VALVES



Series 37/50
Flanged gate valve
Metal seated
BS5163
Ductile iron
PN16
Clockwise to close
DN50-300



Series 43/60
Flanged gate valve
Face-to-face to SANS/
EPDM rubber
Ductile iron

Options:
• Flange drilling to PN16
Tab. D or BS10 D
• Clockwise to open or
clockwise to close
• DN50-600



Series 01/80-036
Euro groove socket end gate
valve, bare shaft, for uPVC
pipes. Design to SANS 664
for PN10/16.
Ductile iron
EPDM drinking water
approved
Blue epoxy RAL 5017 250
µm
Clockwise to Close
Available as locally
manufactured



Series 41/60
Swing check valve
Face-to-face to
EN558-48
SANS664 coating
Ductile iron
DN50-300
Drinking Water



Series 41/61
Swing check valve
Face-to-face to
EN558-48
SANS664 coating
Ductile iron
DN50-300
Drinking Water



Series 910
Y-strainer
Stainless steel screen
PN16-25
DN50-600
Drinking and Waste Water



Series 1410/35-001
Tilting Disc Check
Valve,
model RM
Face-to-face
dimension according to
EN 558,
basic series 16
Stainless steel
Options: Available
with Counter lever
and weight or spring.
Larger sizes on
request



**Series 6137, PN10 - PN16 -
PN25 - PN40**
Boving Double Eccentric
Butterfly Valve
Soft seal in EPDM
S.G. Iron body and disc
Bare shaft
Various gearbox and
actuation options



Series 820/00
Centric butterfly valve
Wafer type with centering
lugs
Loose liner
Bare shaft
DN25-1000



Series 756
Double Eccentric butterfly
valve, bare shaft
Ductile iron body and
disc with epoxy coating
Integral Body Seat
Stainless steel shaft with
self-lubricating bearings
Short face-to-face
Designed to EN593 Face-
to-face according to
EN558 T2



Series 53/35-005
Ball check valve, flanged, tbl.
D, A2 bolts/zinc-coated A4
nuts
Face-to-face dimension
according to EN 558, basic
series 48
Ductile iron
NBR rubber

WASTEWATER OUTLET - VALVES



Series 779/65-001

Heavy duty knife gate valve, long, WG model, flanged DI body, SS-404 blade, EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/61-002

Knife gate valve, short wafer type, VG model, CF8M (SS-316 cast stainless steel) body, SS-316 blade; EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Stainless steel
EPDM rubber



Series 779/68-001

Knife gate valve, long, HG model, flanged DI body, SS-304 blade, PTFE packing, EPDM seal, handwheel/gearbox, class 150, 20 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/91-001

Knife gate valve, short wafer type CI body, SS-304 blade, PTFE packing, EPDM seal, handwheel/gearbox, 5-10 bar
Ductile iron
EPDM rubber
Epoxy Coating



Series 779/X-084

Knife gate valve, short wafer type, VG model, DI body, SS-304 blade, EPDM packing, EPDM seal, handwheel/gearbox, 6-10 bar
Ductile iron



Series 75/62-101

EN1092 flanged butterfly valve, DI body, fixed EPDM liner, duplex disc 1.4470 and shaft 1.4462, Dif. P 16bar, orange coating, bare shaft (WW ref. EVFS-i)
Face-to-face dimension according to EN 558, basic series 13
Ductile iron
EPDM rubber
T014-C254
Clockwise to Close



Series 75/64-101

Centric butterfly valve, wafer type w/centering lugs, DI body, fixed EPDM liner, duplex disc 1.4470 and shaft 1.4462, Dif. P 16bar, orange coating, bare shaft (WW ref. EVCS-i)
Face-to-face dimension according to EN 558, basic series 20
Ductile iron
EPDM rubber
T014-C254

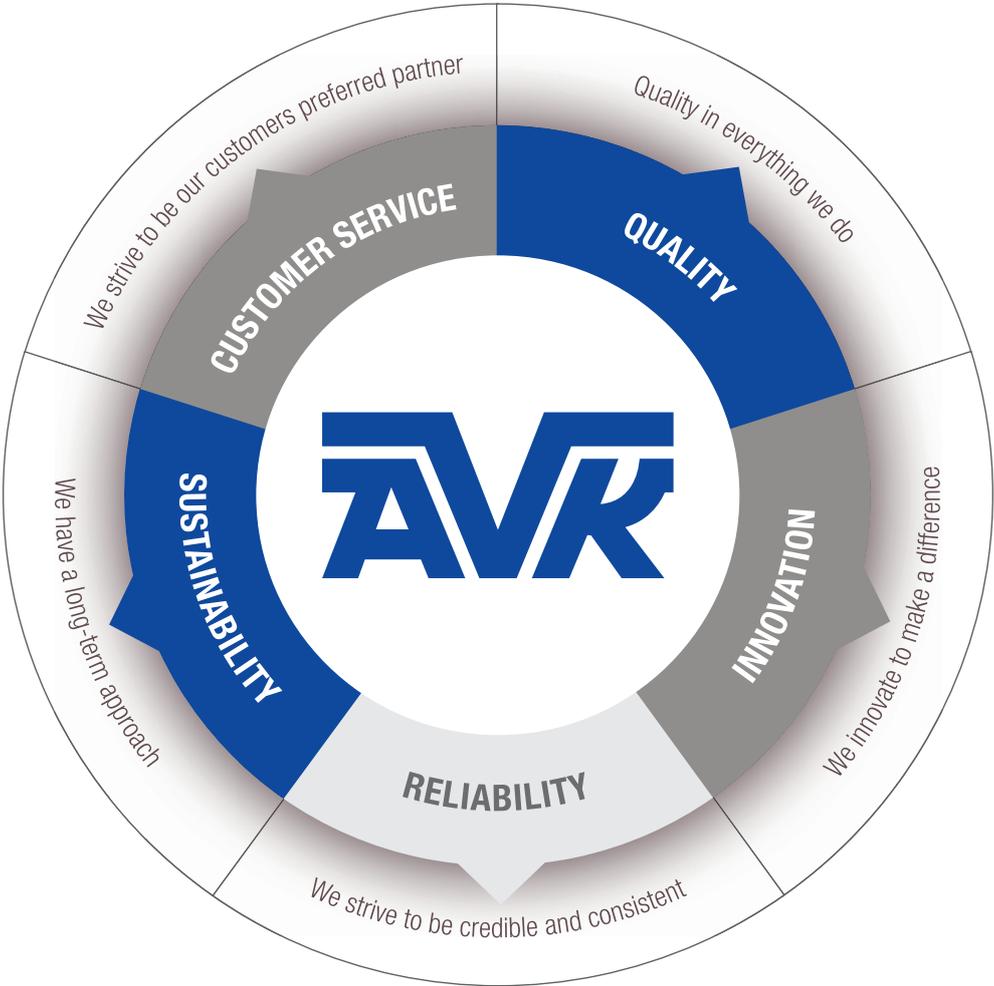


Series 75/61-101

Centric butterfly valve, wafer type, EN1092 flanged, short EN558/20, fixed EPDM lining, DI body, duplex disc/shaft, dif. P16 bar, coating orange, bare shaft (WW ref. EVS-i)
Face-to-face dimension according to EN 558, basic series 20
Ductile iron
EPDM rubber
T014-C254



OUR VALUES



QUALITY IN EVERY STEP



At AVK Valves Southern Africa, we implement stringent quality control measures throughout each stage of the manufacturing process.

Our products undergo type testing during the design phase to ensure they meet established criteria for strength, operation, and endurance. During assembly, we conduct dimensional and visual inspections, followed by a series of production tests in accordance with standard requirements.

Stock and distribution

AVK Valves Southern Africa's logistics center excels in managing stock and distribution efficiently. We have an extensive range of products in stock to meet our customers' requirements for both projects and day to day business.



Own Rubber Factory

AVK GUMMI, our own rubber factory, has been producing high-performance rubber components for demanding applications for more than 40 years. The manufacturing system includes precise control over each rubber compound, full traceability, SPC control, FMEA, and an exceptionally clean production environment.

Inhouse R & D

In our Development Department in Denmark, we continuously gather ideas and suggestions for new products while updating existing ones. We utilize Finite Element Analysis (FEA) to optimize the strength and geometry of our components, and Computational Fluid Dynamics (CFD) analyses to validate different product designs before creating physical prototypes. This approach allows us to predict outcomes in scenarios where full-scale physical tests are not feasible. We design and manufacture our own test and production equipment. In our flow lab, we conduct comprehensive prototype and life cycle tests before releasing products for production. Additionally, new product types are typically field-tested in collaboration with end users before their final launch.

ISO Certification - Third party Certification

AVK Valves Southern Africa operates efficiently, adhering to ISO 9001 :2015 and ISO 45001 :2018 certifications. AVK Valves Southern Africa products meet international and local specifications when required.

EXPECT US TO COMPLY TO INDUSTRY STANDARDS



Third party certification

Authorities such as DVGW (Germany), KIWA (Netherlands) and UL & FM (the US) offer certification of finished valves, and these are also recognized and accepted by other countries that do not have their own certification schemes.

By obtaining and maintaining the most widely accepted certification, we show our customers that AVK valves always meet the highest quality and safety standards.

Expect... AVK

In our business there are five cornerstones that must be in place in order to meet customer expectations: Quality, reliability, innovation, sustainability and customer service.

But we need to go further than that. We go further to exceed our customers' needs and expectations.

"Expect... AVK" means that our customers should rightfully expect us to exceed market standards. "Expect... AVK" means that we relentlessly strive for increased customer benefits!

To ensure that we keep pushing the boundaries of what the market can expect, we have formulated promises that we will strive to deliver in all our markets:

- EXPECT** A LONG-TERM PARTNERSHIP
- EXPECT** QUALITY IN EVERY STEP
- EXPECT** LASTING INNOVATIONS
- EXPECT** TOTAL SAVINGS
- EXPECT** SOLUTIONS, NOT JUST PRODUCTS
- EXPECT** GLOBAL LEADERSHIP AND LOCAL COMMITMENT
- EXPECT** PROMPT RESPONSE
- EXPECT** IT TO BE EFFECTIVE AND EASY

See more on www.avkvalves.co.za



TECHNICAL NOTE

CORROSION PROTECTION

First all cast components are blast cleaned according to ISO 12944-4, SA 2½.

The valve and hydrant bodies and bonnets and other components are fusion bonded epoxy coating in compliance with DIN 3476 part 1 and EN 14901 and GSK guidelines. The high quality epoxy coating is GSK approved and applied manually or using a fluidized bed epoxy coating system. After the valve components have been blast cleaned, the clean and preheated components are submerged in epoxy powder. The powder melts when in contact with the preheated components and cures when the components enter the cooling tunnel shortly after the coating process.

Test procedure

- **Coating thickness:**
The coating layer thickness shall be no less than 250 µ.
- **Pore-free coating:** The coating must be completely free of penetrating pores to avoid subsequent corrosion of the casting underneath. A 3 kv holiday detector with a brush electrode is used to electrically reveal and locate any pores in the coating.
- **Impact resistance:**
The impact resistance test is carried out right after the coating process by means

of a stainless steel cylinder dropped on the coating surface through a one meter long tube corresponding to an impact energy of 5 Nm.

After each impact the component is electrically tested, and no electrical breakthrough shall occur.

- **Cross linkage:**
One drop of methyl isobutyl ketone is put on a horizontal epoxy resin coated surface of the test piece at room temperature. After 30 seconds the test area is wiped with a clean white cloth. It is checked that the test surface has not become neither matt nor smeared, and that the cloth remains clean. The test is carried out 24 hours after the coating process.

- **Adhesion:**
The adhesion of the powder coating on one of each type of component is tested four times a year per coating plant according to GSK guidelines using the punch separation method according to DIN 24624. The coating thickness over a dispersed area of the test item shall be within the range 250 µ to 400 µ.

The test pieces are immersed for seven days in deionised water at 90°C, and then dried in an oven for 3 hours. A conditioning phase of 3 to 5 days in normal atmosphere is then allowed to elapse. No blisters may arise during the period immersed in the water bath.

The surface of the test piece is degreased and then roughened with abrasive paper. The roughened surface is cleaned from dust with oil-free compressed air and re-cleaned. The adhesion on both the core and the moulding sand sides is tested with a minimum pulling force of >12 N/mm².

- **Cathodic disbonding:**
Cathodic disbonding tests are carried out on one of each type of component at least twice a year. No bubbles in the coating may develop during the test for cathodic disbonding. For this test, the coating thickness over a dispersed area of the test item shall be within the range 250 µ to 400 µ.

Approvals:

The coating is approved for use in drinking water systems, meeting all specified toxicological conditions, by the following institutes:

- Hygiene Institute, Germany
- Hydrocheck, Belgium
- CARSO L.S.E.H.L., France

Extra top coating:

All our hydrants and post indicators have an additional layer of UV-resistant polyester coating. The polyester coating will protect the colour of the products from fading, even though the products are installed in places with a strong UV-light exposure.



OUR TRAINING FACILITIES AT THE ACADEMY

AVK Holding established The Academy in September 2016. The Academy is an in-house training facility with a 40-seater seating capacity.

The institute showcases an impressive flow lab which demonstrates the flow of water through a series of valves allowing attendees to gain a comprehensive understanding of water related processes.

Get equipped through our Product Courses

Since its establishment, three product courses have been launched; The Valves Fundamentals Course, which provides a sound introduction to acquire an essential knowledge of valves, in theory and practice, and The advanced Valves Course which provides greater insight into principles and practices that address the theories of fluid pressure, fluid flow and field applications.

The Technical Training Course will further the understanding of a range issues related to industry practical problems and will broaden the horizon of design and consulting engineers, plant operators, engineering students, maintenance personnel and persons dealing with valves.

The course is registered through ECSA qualifies for 2 CPD points for professionals. (SAIMech-E -1350-01-23).

Valves function as mechanical devices to control the flow and pressure within a system or process.

They are essential components that convey different mediums in different environments. It is of paramount importance that the correct valve is specified for the right application and making the right decision makes a world of difference.

The Academy, a training institute, makes a difference in the world of valves by offering accredited courses, compiled by a team of engineers with a wealth of experience.



THE AVK GROUP GLOBAL PRESENCE

The AVK Group is a privately owned industrial group currently comprising +100 companies worldwide. We develop and produce valves, hydrants and accessories for water and gas distribution, sewage treatment and fire protection.

AVK has built up strong brands supplying products and solutions for various industrial sectors and within advanced manufacturing.

Our products are designed to meet international standards and are sold worldwide.

When dealing with the AVK Group expect quality, reliability, functionality and long lifetime in service.

AVK is global in scale when it comes to manufacturing and design.

We serve our customers locally, offering full-line partnership and a single entry point to a world of quality solutions.



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Established as a local machine shop in Denmark	Employees worldwide	Companies in the Group	Million EUR of turnover

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