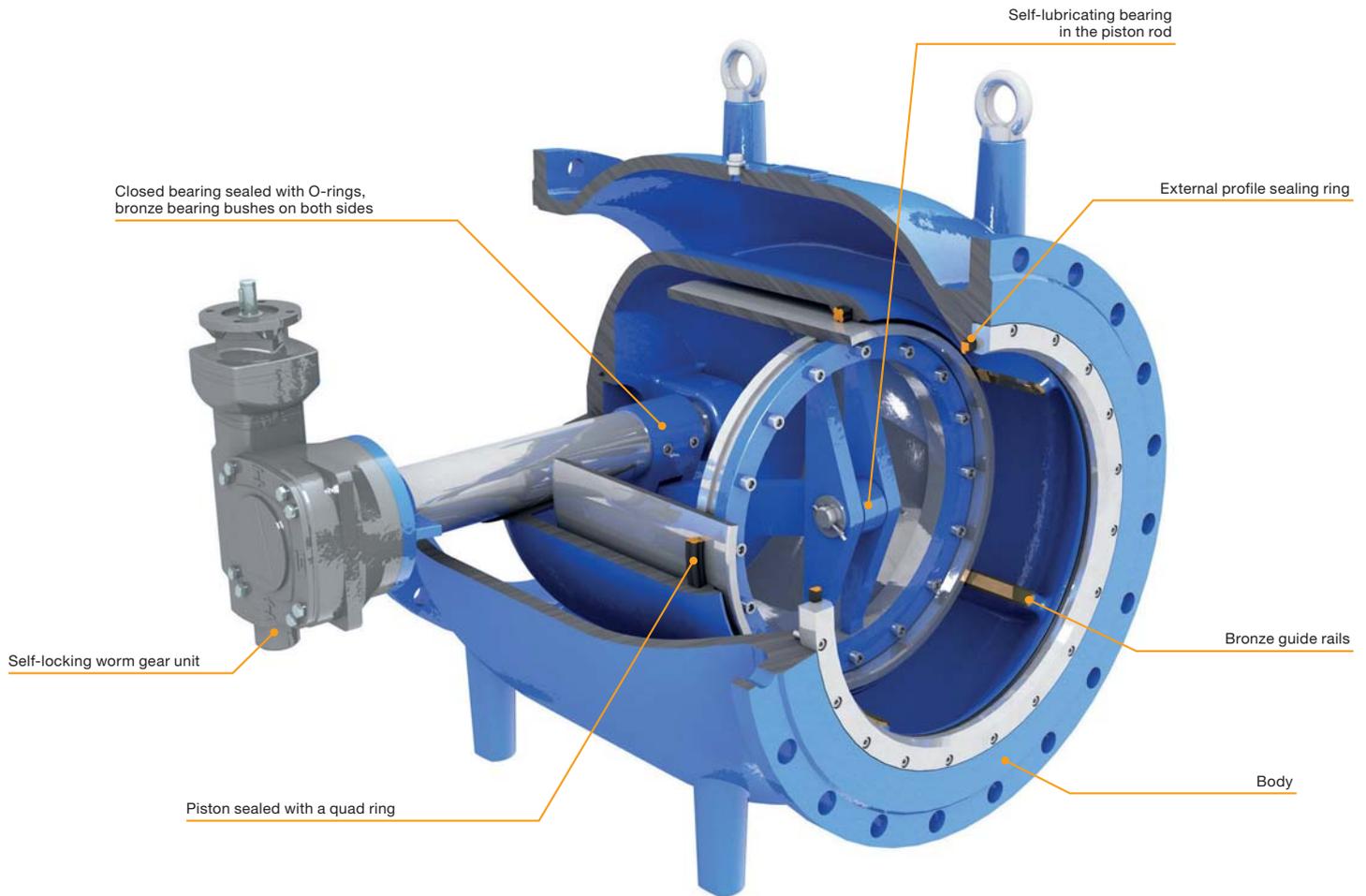


VAG Control Valves





VAG RIKO® Plunger Valve



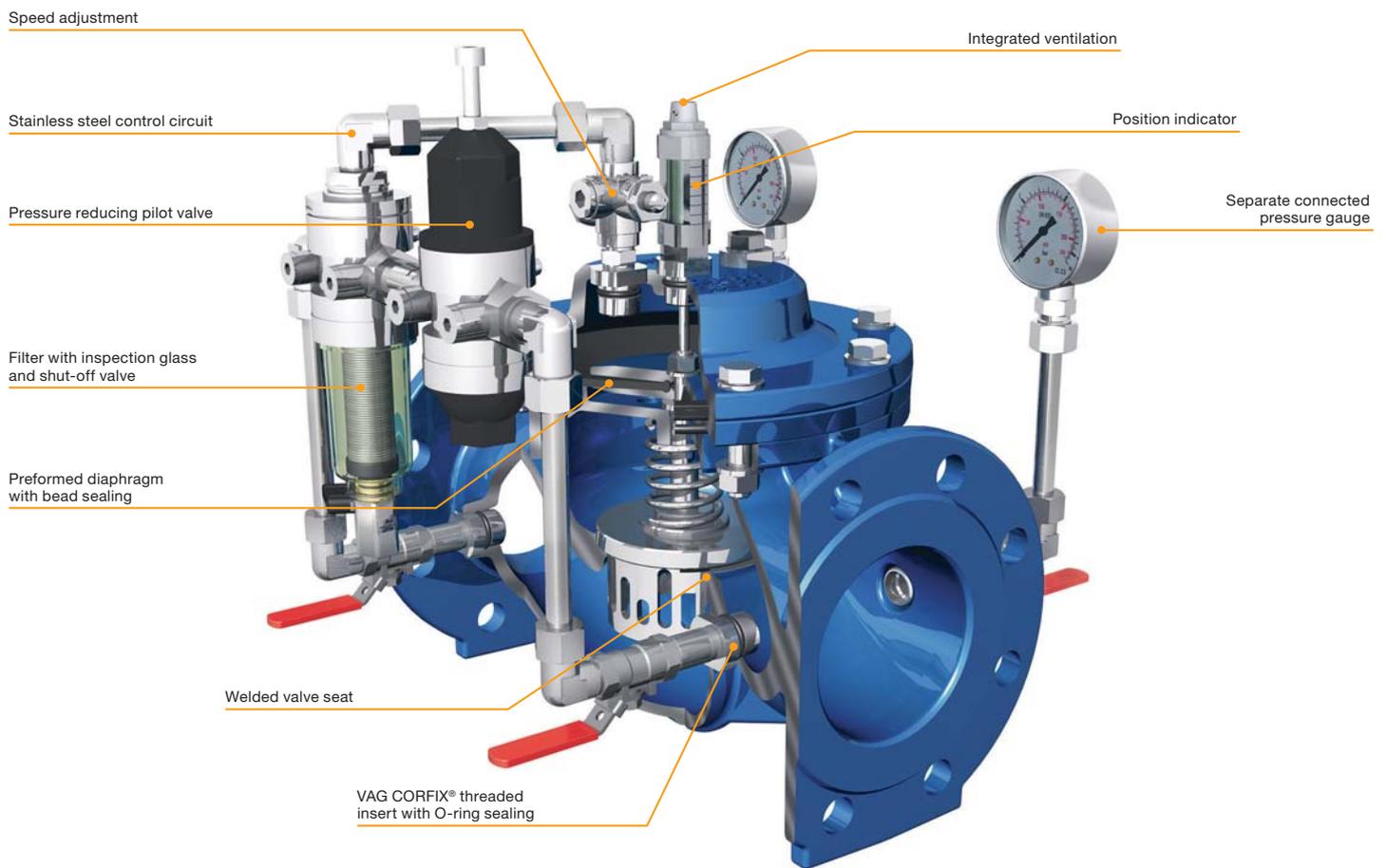
Technical details

- Nominal pressures PN 10 ... 100, class 150 / 300
- Nominal diameters DN 150 ... 2200
- Fields of application: Water, air regulation in wastewater treatment plants
- Standard version: Body made of EN-GJS-400-15 (GGG-40) ductile iron, piston made of 1.4301 stainless steel, with an adapted control device, worm gear unit and position indicator
- Inside and outside epoxy coating
- Actuator types:
 - With manual actuator
 - With electrical actuator
 - With hydraulic actuator
 - With pneumatic actuator
- Special versions:
 - With a slotted cylinder to regulate high pressure differences in water with high solids („SZ“)
 - With a multiple orifice cylinder to regulate high pressure differences („LH“)
 - With a double cylinder for very high pressure differences („LHD“)
 - With a tripple cylinder for special applications („LHT“)
 - With a cut-off edge and a sudden enlargement of the cross-sectional area at the seat („E“)
 - With a special cylinder, adapted to customer requirements

Product features

- Cavitation-free operation provided by optimal design.
- Valve seal in the no-flow zone for a long service life.
- Drive with a self-locking worm gear unit with a constant transmission ratio for a linear control curve in connection with an optimal control device.
- One piece, compact body across the full nominal width, thus reducing the number of components and eliminating potential leak path.
- Hard-faced bronze guides for low operating forces which also prevent the piston from jamming.
- Balanced piston for minimal operating forces.
- Multiple O-ring seals for primary and secondary piston sealing.
- The valve can be serviced and dismantled without removing it from the pipeline if the pipes are sized for easy accessibility.
- Inner parts made of stainless steel as a standard (DN 150 ... 800).
- Quad ring construction not sensitive to deposits on the piston.
- Valve highly efficient thanks to an optimised design and flow path.
- Connecting rod installed in maintenance-free, robust bronze / plastic compound bushes.

VAG PICO®-H Pressure Reducing Valve



Technical details

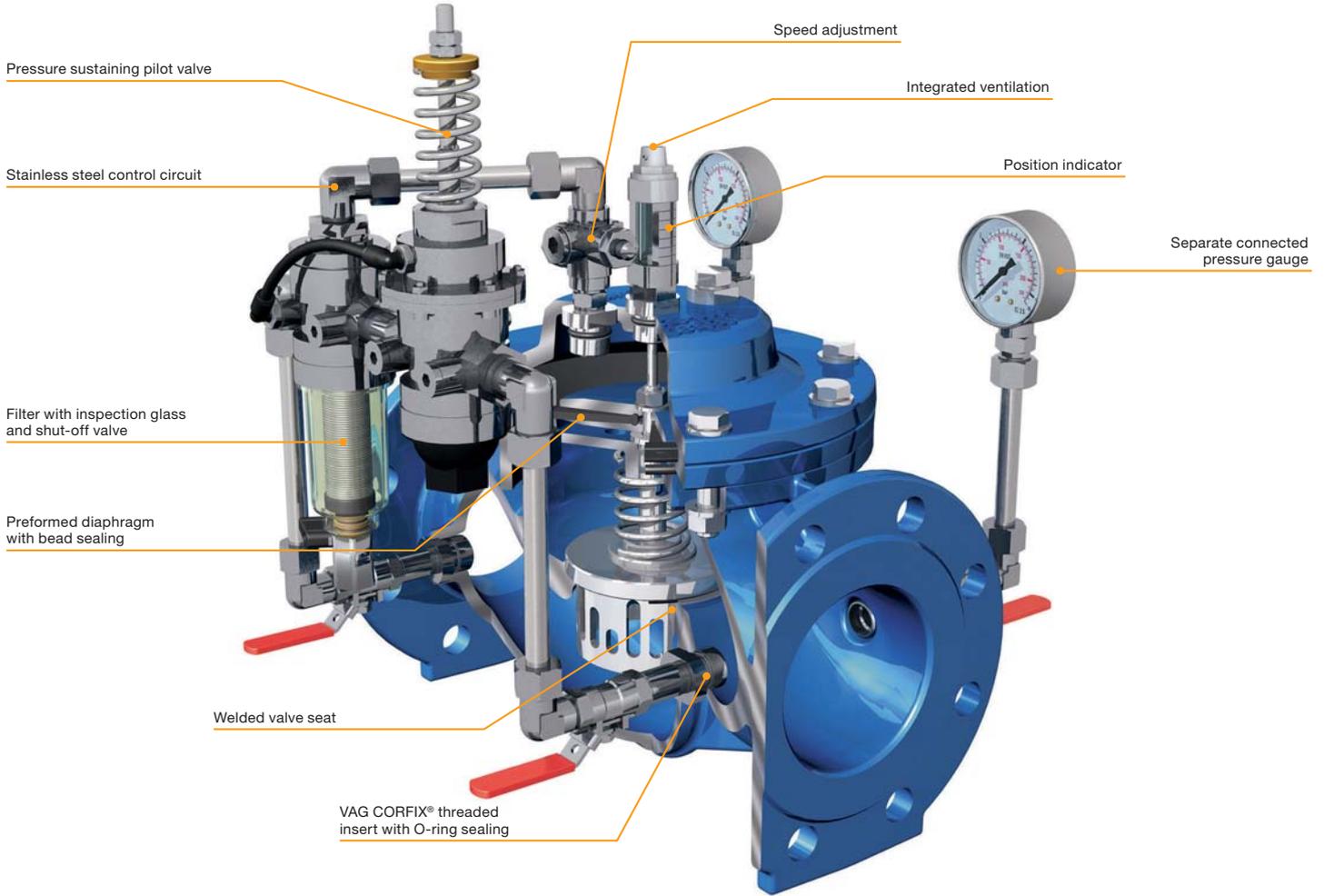
- Nominal pressures PN 10, 16
- Nominal diameters DN 50 ... 300
- Field of application: Water
- Standard version: Body and bonnet made of EN-GJS-400-15 (GGG-40) ductile iron, with an SZ40 slotted cylinder
- Self-acting valve, suitable for independent operation without an external supply of energy
- Diaphragm and sealing made of EPDM according to DVGW W270
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
 - DN 350 ... 600
 - PN 25
 - Different materials and equipment (B- & M-Series)

Product features

- Welded valve seat enhances resistance to wear, is anti-filtration and prevents the development of corrosion.
- Replaceable cylinders for better adaptation to operating conditions and for cavitation-free operation.
- VAG CORFIX® press-fitted threaded inserts prevent exposed cast areas around connections and the development of corrosion.
- Integrated ventilation in the bonnet for the automatic release of trapped air and for preventing pressure fluctuations.
- Preformed membrane with bead sealing to prevent installation errors, secure sealing of the body. Integrated stroke distance reduces wear and increases the useful life.
- Chambered, profile sealing ring on the valve seat, protected against extraction for guaranteed impermeability.
- Compact control block for setting opening and closing stroke speeds separately in order to adapt the response times to the operating situation.
- Fine-pored filter with inspection glass and shut-off valve for visualising the contamination level in the control circuit. Flushing also possible in operation while installed.



VAG PICO®-H Pressure Sustaining Valve / Discharge Valve



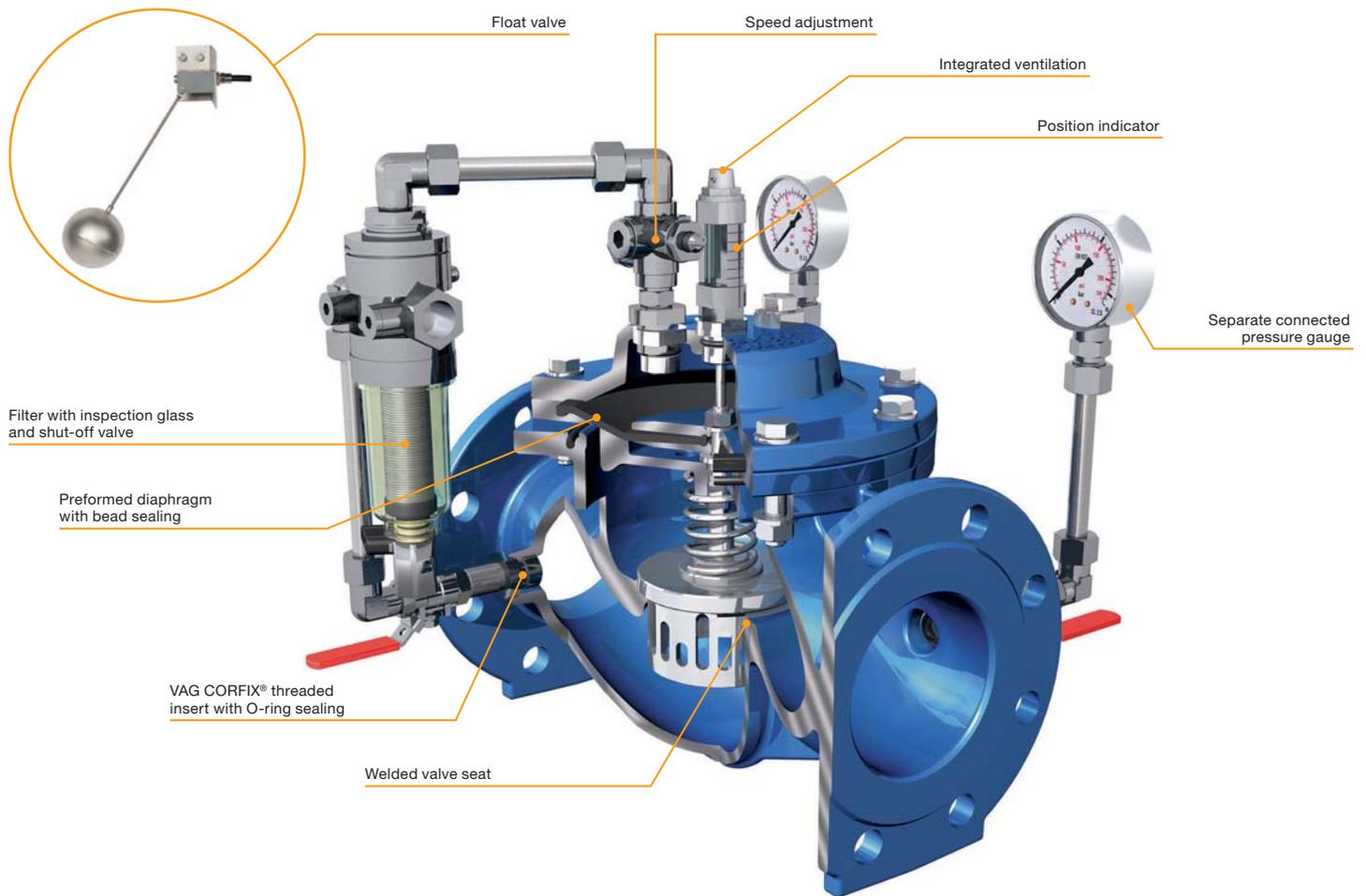
Technical details

- Nominal pressures PN 10, 16
- Nominal diameters DN 50 ... 300
- Field of application: Water
- Standard versions: Body and bonnet made of EN-GJS-400-15 (GGG-40) ductile iron, with an SZ40 slotted cylinder
- Self-acting valve, suitable for independent operation without an external supply of energy
- Diaphragm and sealing made of EPDM according to DVGW W270
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
 - DN 350 ... 600
 - PN 25

Product features

- Welded valve seat enhances resistance to wear, is anti-filtration and prevents the development of corrosion.
- Replaceable cylinders for better adaptation to operating conditions and for cavitation-free operation.
- VAG CORFIX® press-fitted threaded inserts prevent exposed cast areas around connections and the development of corrosion.
- Integrated ventilation in the bonnet for the automatic release of trapped air and for preventing pressure fluctuations.
- Preformed membrane with bead sealing to prevent installation errors, secure sealing of the body. Integrated stroke distance reduces wear and increases the useful life.
- Chambered, profile sealing ring on the valve seat, protected against extraction for guaranteed impermeability.
- Compact control block for setting opening and closing stroke speeds separately in order to adapt the response times to the operating situation.
- Fine-pored filter with inspection glass and shut-off valve for visualising the contamination level in the control circuit. Flushing also possible in operation while installed.

VAG PICO®-H Float Valve



Technical details

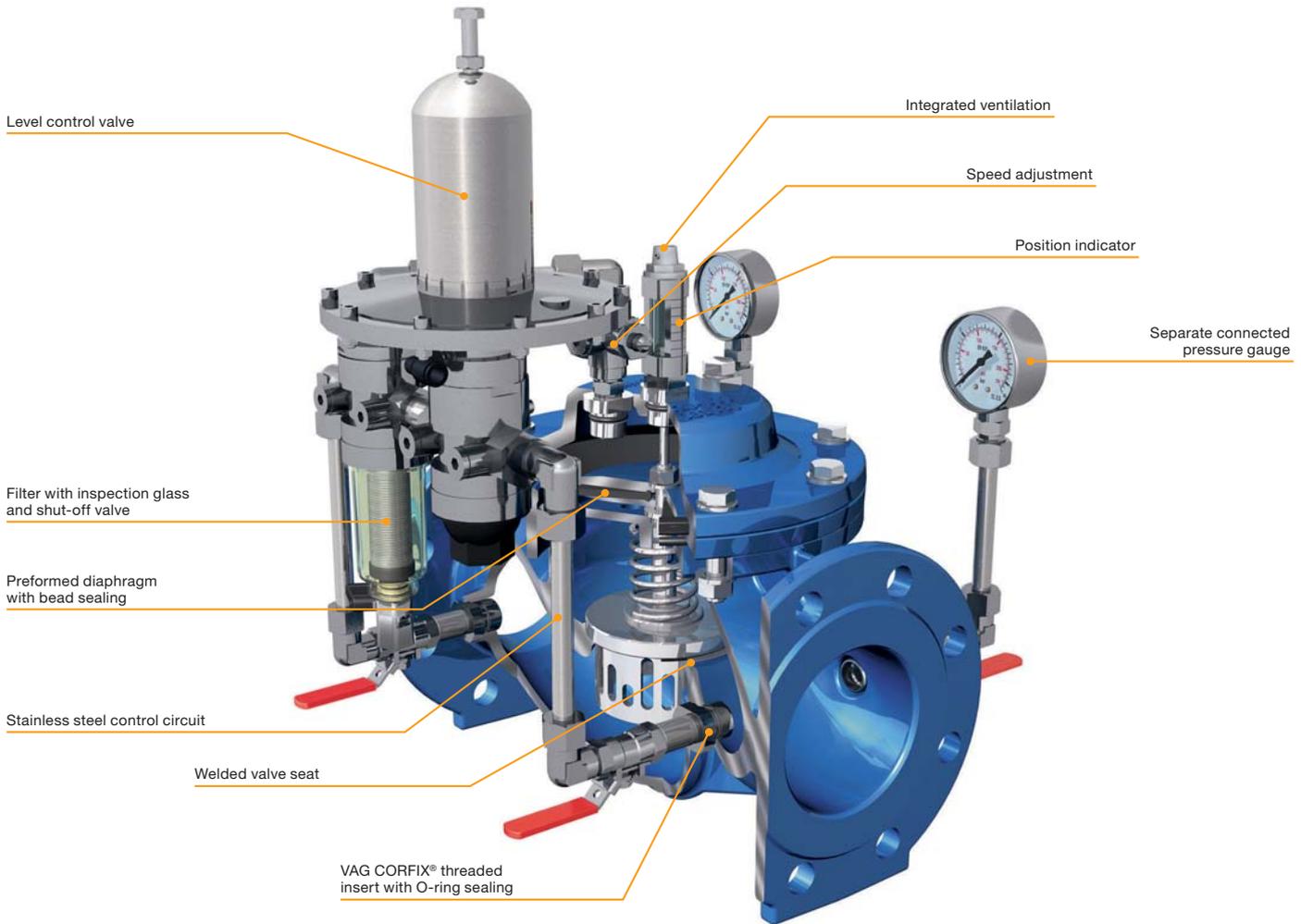
- Nominal pressures PN 10, 16
- Nominal diameters DN 50 ... 300
- Field of application: Water
- Standard version: Body and bonnet made of EN-GJS-400-15 (GGG-40) ductile iron, with an SZ40 slotted cylinder
- Self-acting valve, suitable for independent operation without an external supply of energy
- Diaphragm and sealing made of EPDM according to DVGW W270
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
 - DN 350 ... 600
 - PN 25

Product features

- Welded valve seat enhances resistance to wear, is anti-filtration and prevents the development of corrosion.
- Replaceable cylinders for better adaptation to operating conditions and for cavitation-free operation.
- VAG CORFIX® press-fitted threaded inserts prevent exposed cast areas around connections and the development of corrosion.
- Integrated ventilation in the bonnet for the automatic release of trapped air and for preventing pressure fluctuations.
- Preformed membrane with bead sealing to prevent installation errors, secure sealing of the body. Integrated stroke distance reduces wear and increases the useful life.
- Chambered, profile sealing ring on the valve seat, protected against extraction for guaranteed impermeability.
- Compact control block for setting opening and closing stroke speeds separately in order to adapt the response times to the operating situation.
- Fine-pored filter with inspection glass and shut-off valve for visualising the contamination level in the control circuit.
- Flushing also possible in operation while installed.



VAG PICO®-H Level Control Valve



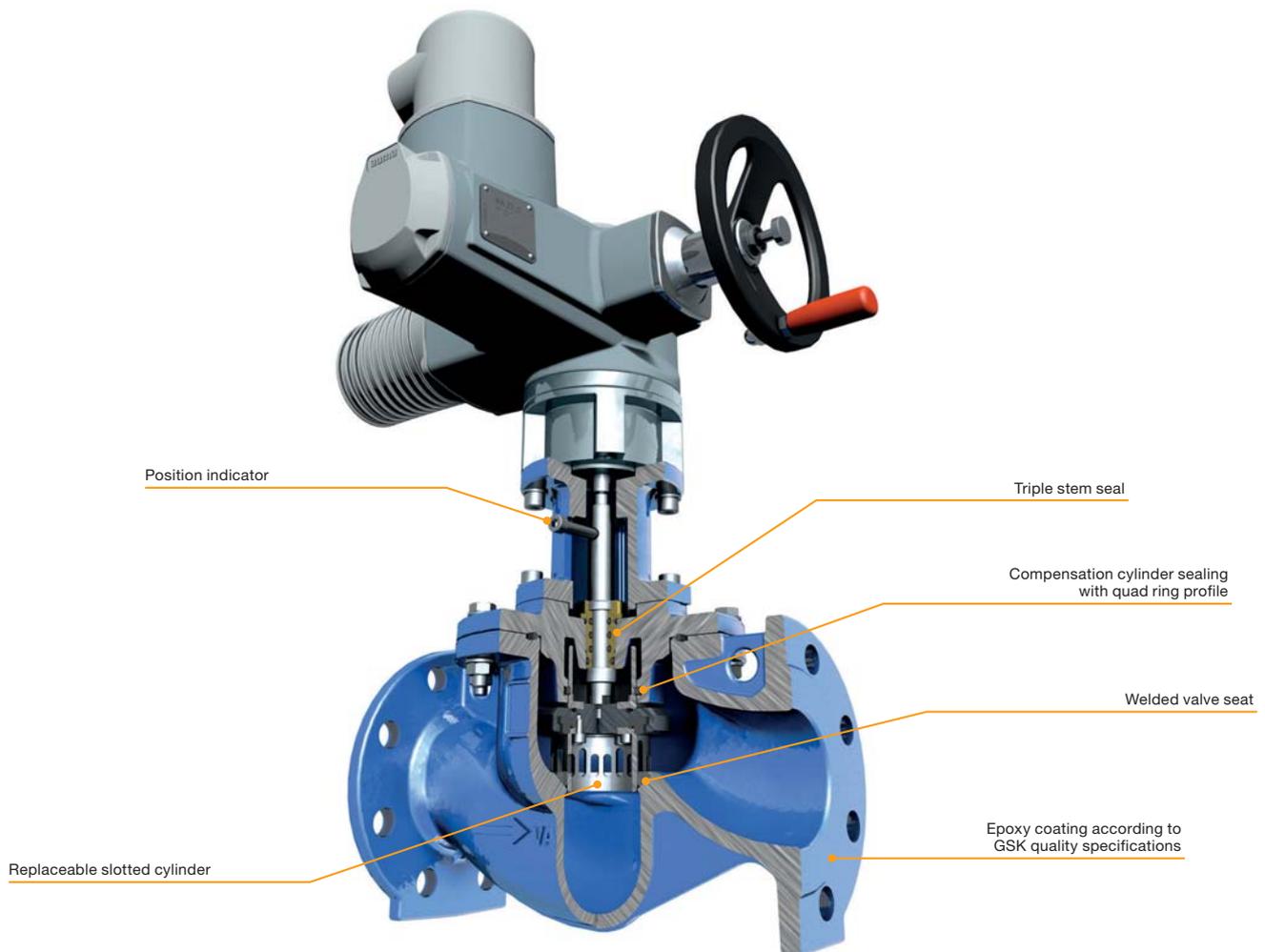
Technical details

- Nominal pressures PN 10, 16
- Nominal diameters DN 50 ... 300
- Field of application: Water
- Standard version: Body and bonnet made of EN-GJS-400-15 (GGG-40) ductile iron, with an SZ40 slotted cylinder
- Self-acting valve, suitable for independent operation without an external supply of energy
- Diaphragm and sealing made of EPDM according to DVGW W270
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
 - DN 350 ... 600
 - PN 25

Product features

- Welded valve seat enhances resistance to wear, is anti-filtration and prevents the development of corrosion.
- Replaceable cylinders for better adaptation to operating conditions and for cavitation-free operation.
- VAG CORFIX® press-fitted threaded inserts prevent exposed cast areas around connections and the development of corrosion.
- Integrated ventilation in the bonnet for the automatic release of trapped air and for preventing pressure fluctuations.
- Preformed membrane with bead sealing to prevent installation errors, secure sealing of the body. Integrated stroke distance reduces wear and increases the useful life.
- Chambered, profile sealing ring on the valve seat, protected against extraction for guaranteed impermeability.
- Compact control block for setting opening and closing stroke speeds separately in order to adapt the response times to the operating situation.
- Fine-pored filter with inspection glass and shut-off valve for visualising the contamination level in the control circuit. Flushing also possible in operation while installed.

VAG DURA Control Valve



Technical details

- Nominal pressure PN 16
- Nominal diameters DN 50 ... 150
- Field of application: Water
- Standard version: Body and bonnet made of EN-GJS-400-15 (GGG-40), valve seals made of EPDM according to DVGW W270; stem, slotted cylinder and compensation cylinder made of stainless steel, stem bearing made of brass
- Inside and outside epoxy coating according to GSK specifications
- Actuator types:
 - With manual gearbox
 - With electrical actuator
- Special versions:
 - PN 25
 - Special materials
 - Slotted cylinder adapted to operating conditions

Product features

- Welded valve seat enhances resistance to wear, is anti-filtration and prevents the development of corrosion.
- Replaceable cylinders for better adaptation to operating conditions and for cavitation-free operation.
- Chambered, profile sealing ring on the valve seat, protected against extraction for guaranteed impermeability.
- Low actuating torque due to pressure balanced compensation cylinder.
- Seals replaceable without disassembling the valve from the pipeline.
- Retrofitting from manual operation to electric actuator can be easily done.



VAG KSSplus Hollow-Jet Discharge Valve



Technical details

- Nominal pressure:
 - Standard model: max. 100 mWC (10 bar) in combination with various connecting flanges
 - Greater nominal pressures can be supplied as special constructions upon request
- Nominal diameters DN 400 ... 2000
- Field of application: Water
- Standard version: Sliding rail at the front and back, holding device, seat ring and jacket pipe on the cylindrical sleeve made of Cr-Ni steel, body as a welded construction made of steel S355J2 (1.0577)
- Inside and outside epoxy coating
- Actuator types:
 - With manual gearbox
 - With electrical actuator
 - With hydraulic actuator
- Special versions:
 - DN 2000 ... 3000
 - With a pipe hood
 - With a venting system
 - Coating specified by customer

Product features

- Reliable function and long service life due to cavitation-free discharge in all control positions.
- Intensive energy conversion through umbrella-like breaking of the jet stream.
- Very high discharge capacity and precise regulation with mostly linear regulation characteristics.
- Cylindrical sleeve with adjustable sliding block guides for better adjustment of the cylindrical sleeve to prevent sluggish operation. Furthermore, the adjustable sliding block guide prevents vibration, which has a positive effect on the life expectation of the valve.
- No risk of damage to the structure by vibration, as the flow is only disrupted at the front edge so that there are no partial separations of the flow inside the discharge valve.
- Reliable and robust sealing system with primary resilient and secondary metallic sealing, making the system particularly durable.
- Easy to maintain, because the
 - sealing can be replaced without dismantling the valve,
 - exterior actuator parts are easy to maintain and replace.
- No clamping power to impede movement and unhindered opening movement through long guide and exterior drive spindles.
- Very small actuator sizes and low power consumption due to low operating torques (largely relieved from pressure).



Reference projects

Water supply system
Ouagadougou, Burkina Faso

VAG PICO® Pilot Operated Control Valve

VAG EKO®plus Gate Valve

VAG flow meters and pressure sensors



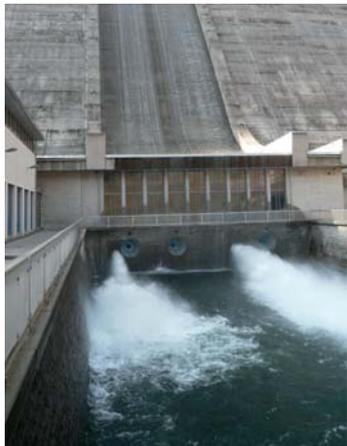
Hydropower plant
Liuj, China

VAG KSS Hollow-Jet Discharge Valve



Water reservoir
Leibis-Lichte, Germany

VAG RIKO® Plunger Valves



Hydropower plant
Asahan, Indonesia

VAG KSS Hollow-Jet Discharge Valve



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For detailed information about nominal diameters, nominal pressures and types the technical documentation KAT-A is authoritative • The pictures are non-binding