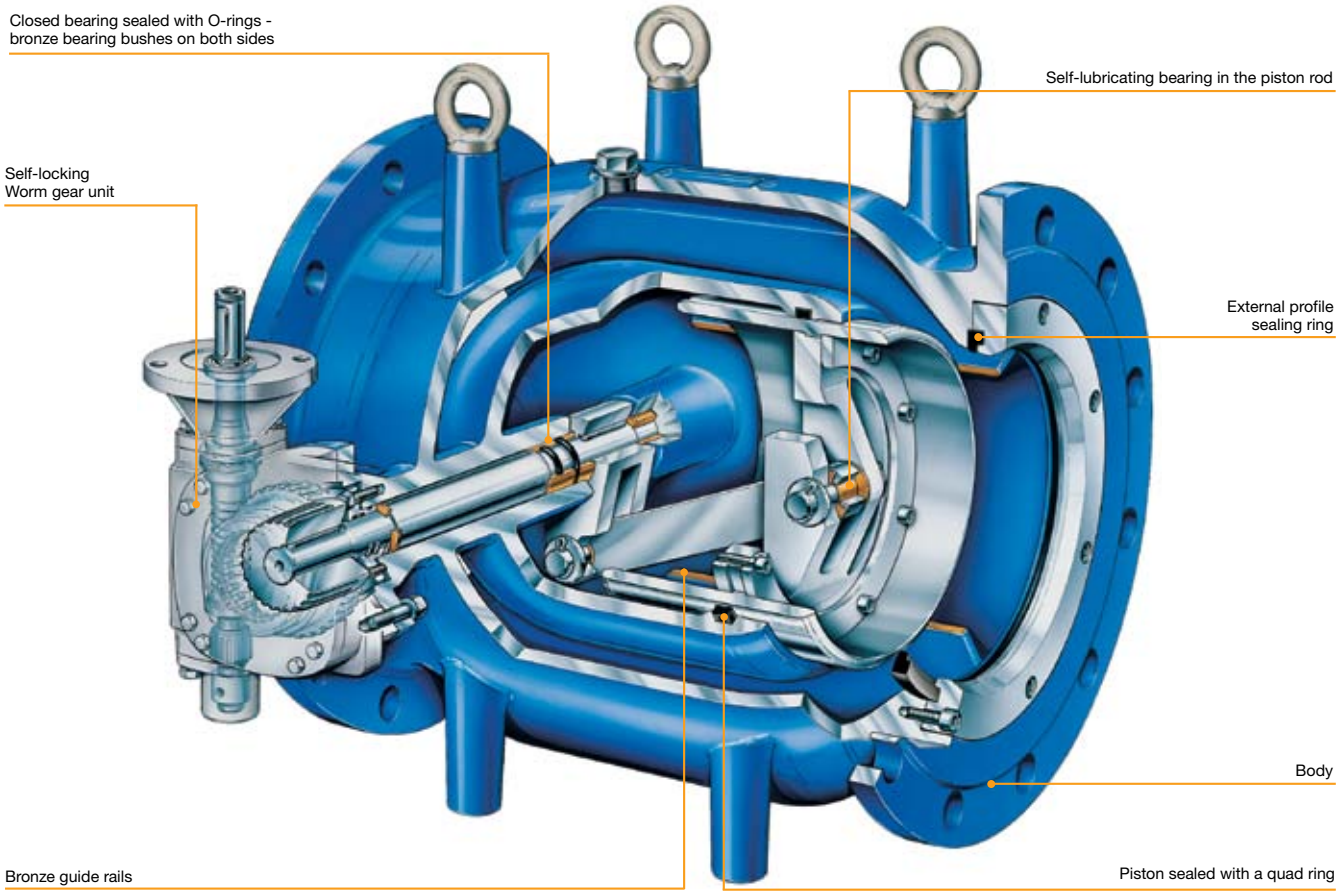
VAG Control Valves

VAG RIKO® Plunger valve



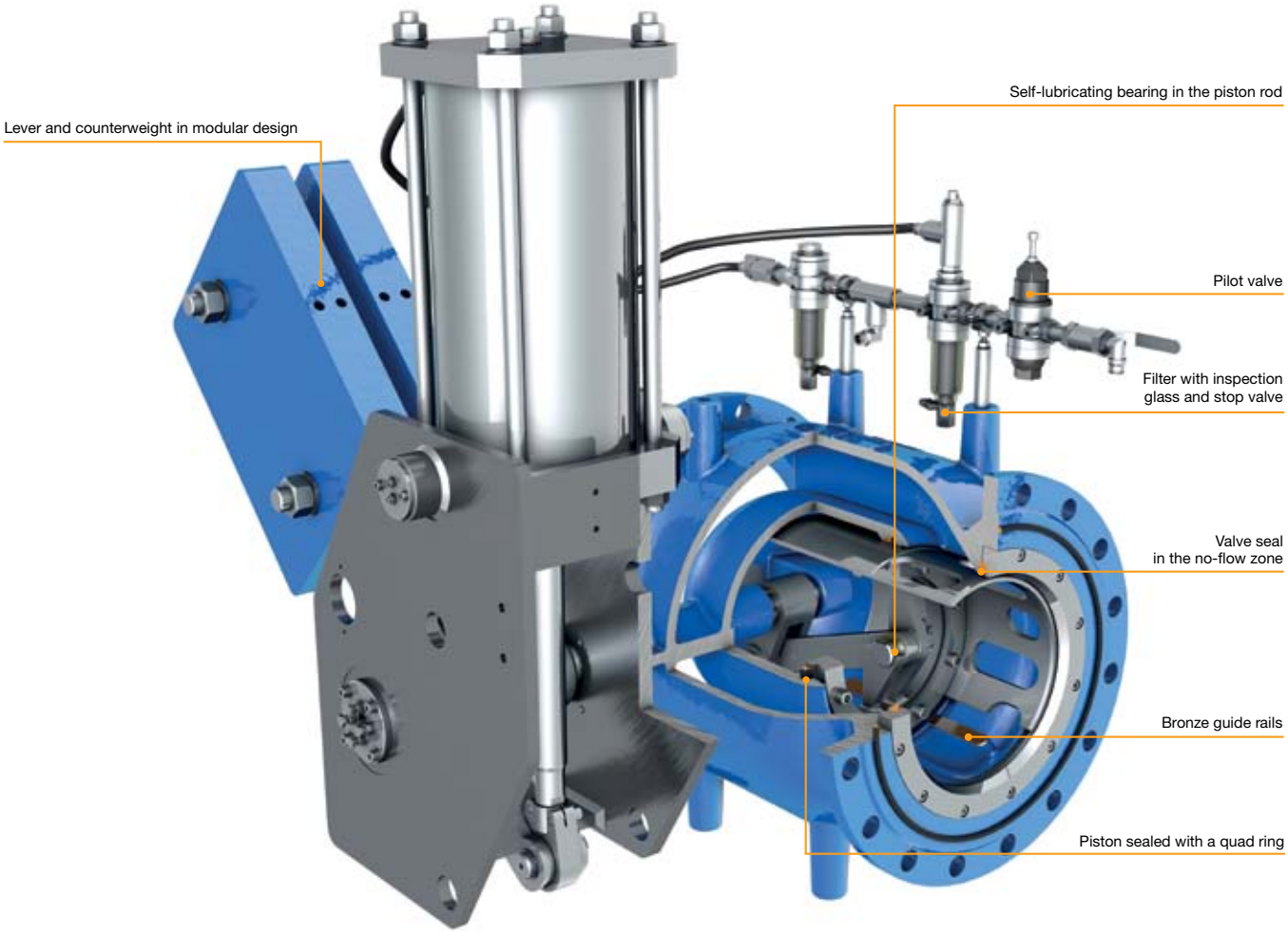
Technical details

- Nominal pressure PN 10...63, class 150 / 300
- Nominal diameter DN 150...2000
- Fields of applications: Water, air regulation in waste-water 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
- Actuator types:
  - With a manual actuator
  - With an electrical actuator
  - With an hydraulic actuator
  - With a pneumatic actuator
- Inside and outside epoxy coating
- 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 special cylinder, adapted to customer requirements
  - With a double cylinder for very high pressure differences
  - With a cut-off edge and a sudden enlargement of the cross-sectional area at the seat („E“)
- Cavitation-free operation provided by optimal design

Product features

- 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... DN 600).
- 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 RIKO® Plunger valve with own-medium control



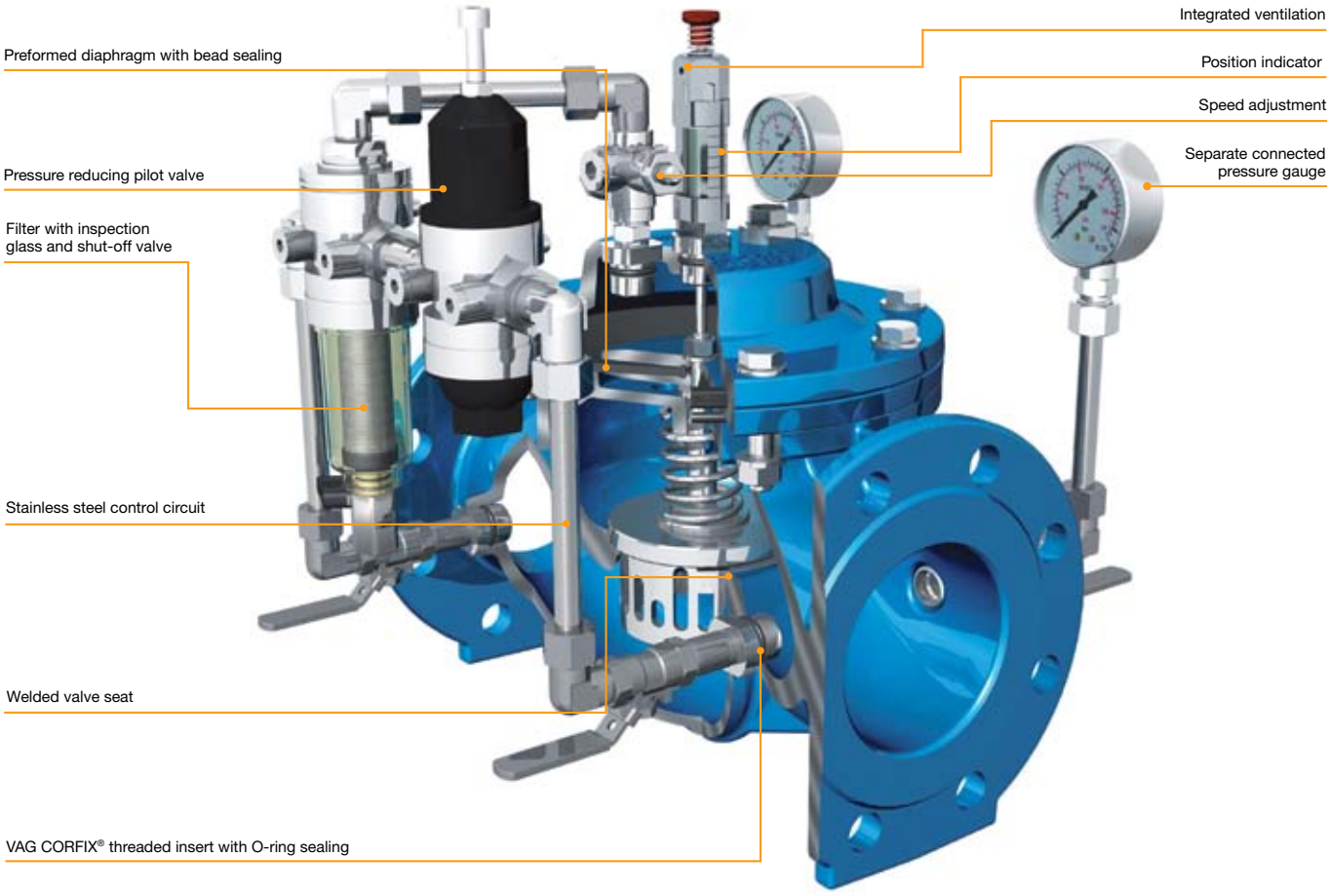
Technical details

- Nominal pressure: PN 10 / 16, class 150
- Nominal diameter: DN 150...1000
- Fields of application: Water
- Self-acting, suitable for independent operation without an external supply of energy; the valve is operated by its own medium via pilot valve; pressure difference of medium provides the necessary torque for operation
- The valve controls a higher inlet pressure to a lower, constant outlet pressure- independently of deviations of flow or inlet pressure
- Standard version: Body made of EN-GJS-400-15 (GGG-40) ductile iron, piston made of 1.4301 stainless steel
- Cylinder: stainless steel, guides made of bronze
- Inside and outside epoxy coating
- With a regulating cylinder, adapted to customer requirements
- Cavitation-free operation provided by optimal design
- Special versions on request

Product features

- Valve seal in the no-flow zone for a long service life.
- Hard-faced bronze guides for low operating forces which also prevent the piston from jamming.
- Balanced piston for minimal operating forces.
- 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...600).
- Quad ring construction not sensitive to deposits on the piston.
- Valve highly efficient thanks to an optimized design and flow path.
- Lever with two bearings, no transmission of forces on valve bearing.
- Fine-pored filter with inspection glass and shut-off valve for visualizing the contamination level in the control circuit. Flushing also possible in operation while installed.
- Lever and counterweight in modular design for individual dimensioning according hydraulic conditions.

VAG PICO® Pressure reducing valve



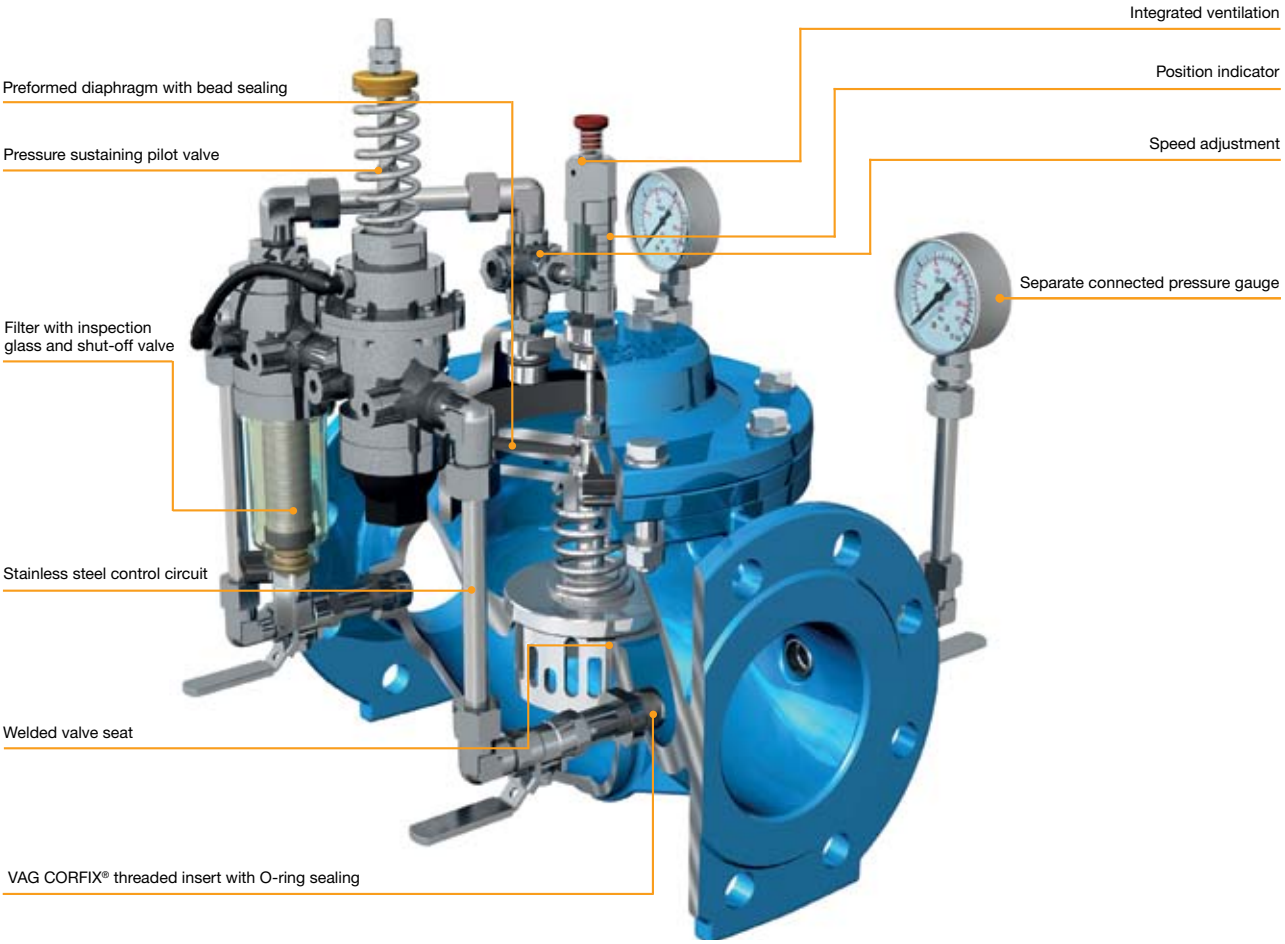
Technical details

- Nominal pressure PN 10/16
- Nominal diameter 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
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
  - DN ≥ 300 on request
  - PN 25 on request
- Diaphragm and sealing made of EPDM according to DVGW W270

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® Pressure sustaining valve / discharge valve



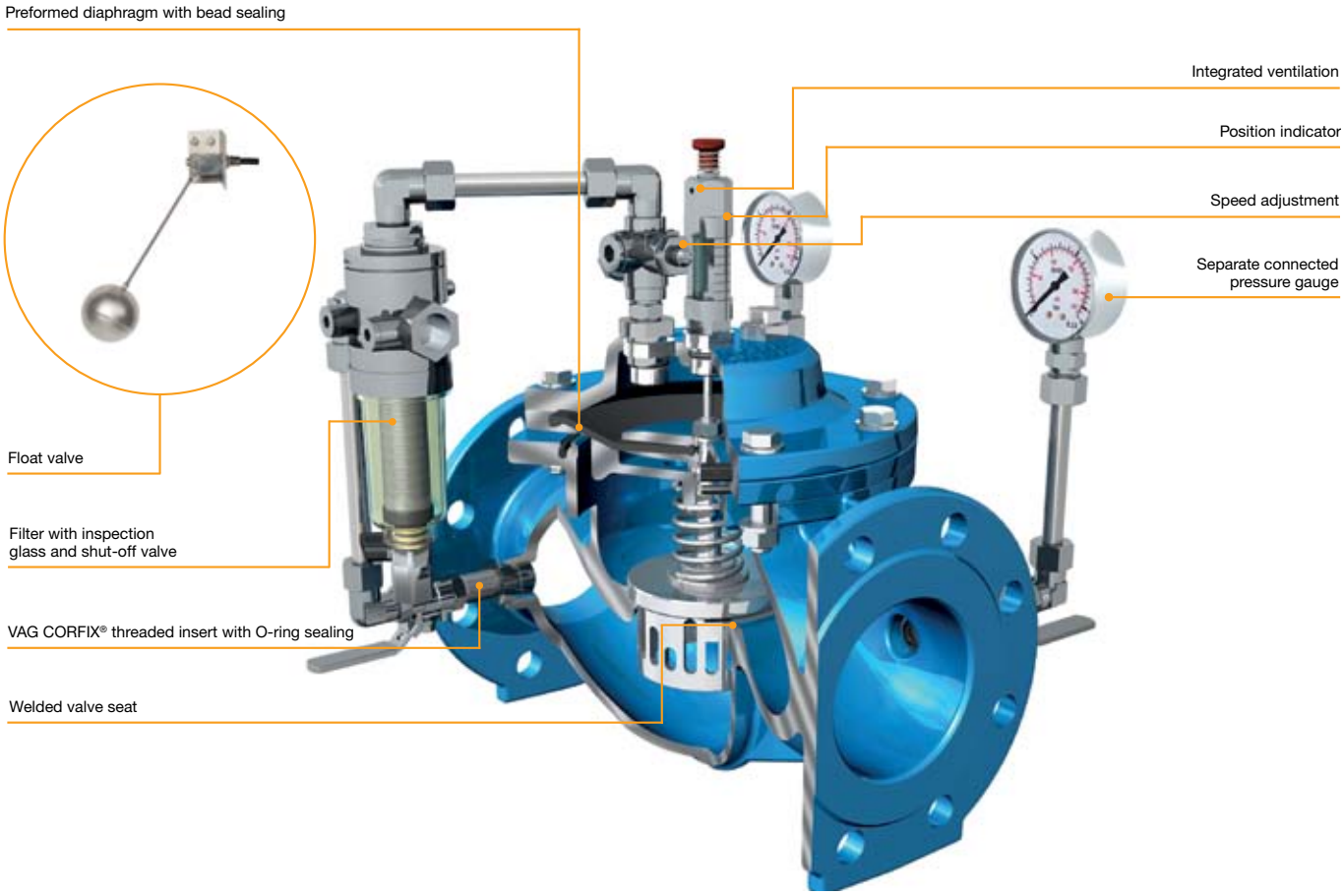
Technical details

- Nominal pressure PN 10/16
- Nominal diameter 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
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
  - DN ≥ 350 on request
  - PN 25 on request
- Diaphragm and sealing made of EPDM according to DVGW W270

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® Float valve



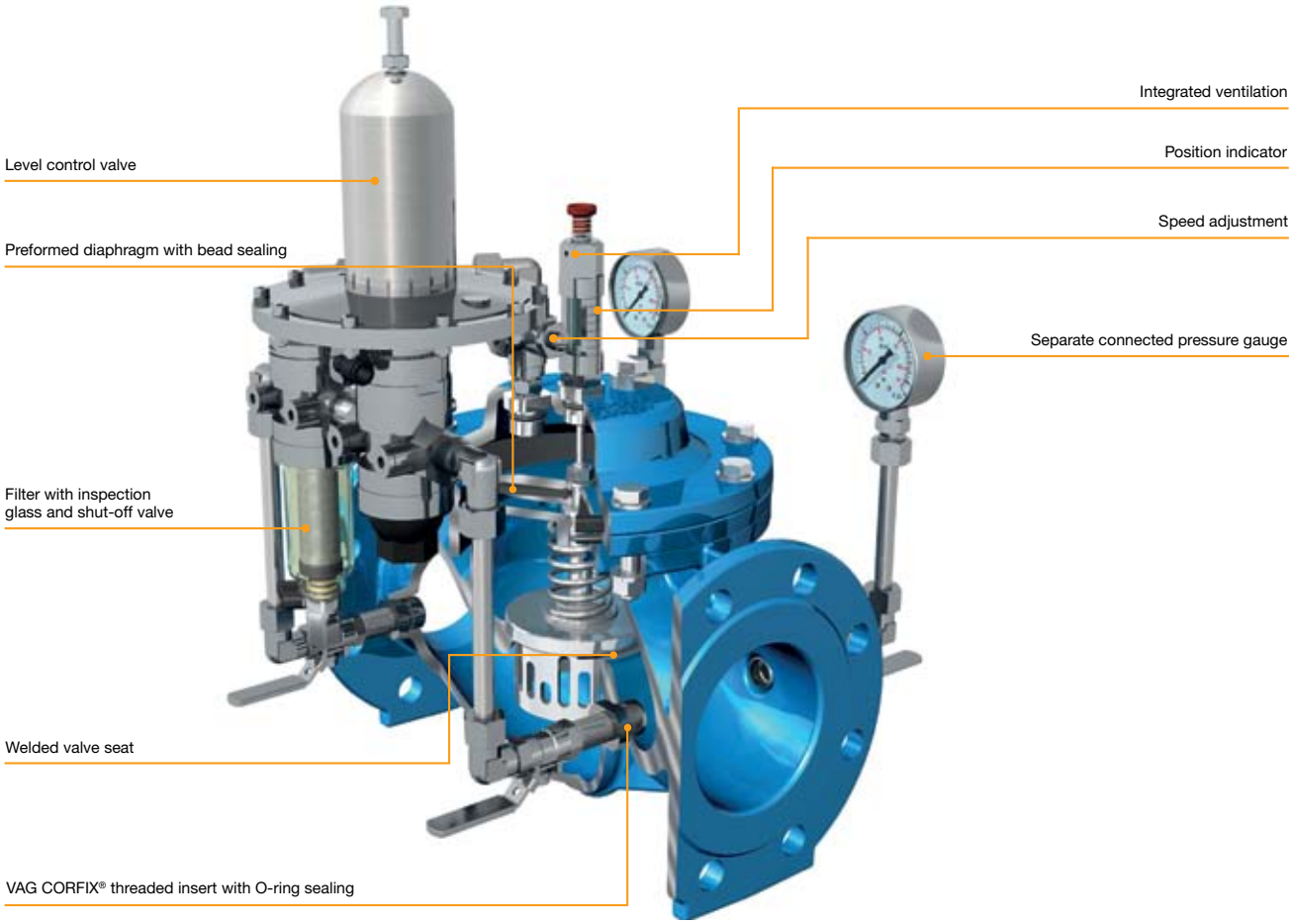
Technical details

- Nominal pressure PN 10/16
- Nominal diameter 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
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
  - DN ≥ 350 on request
  - PN 25 on request
- Diaphragm and sealing made of EPDM according to DVGW W270

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® Level control valve



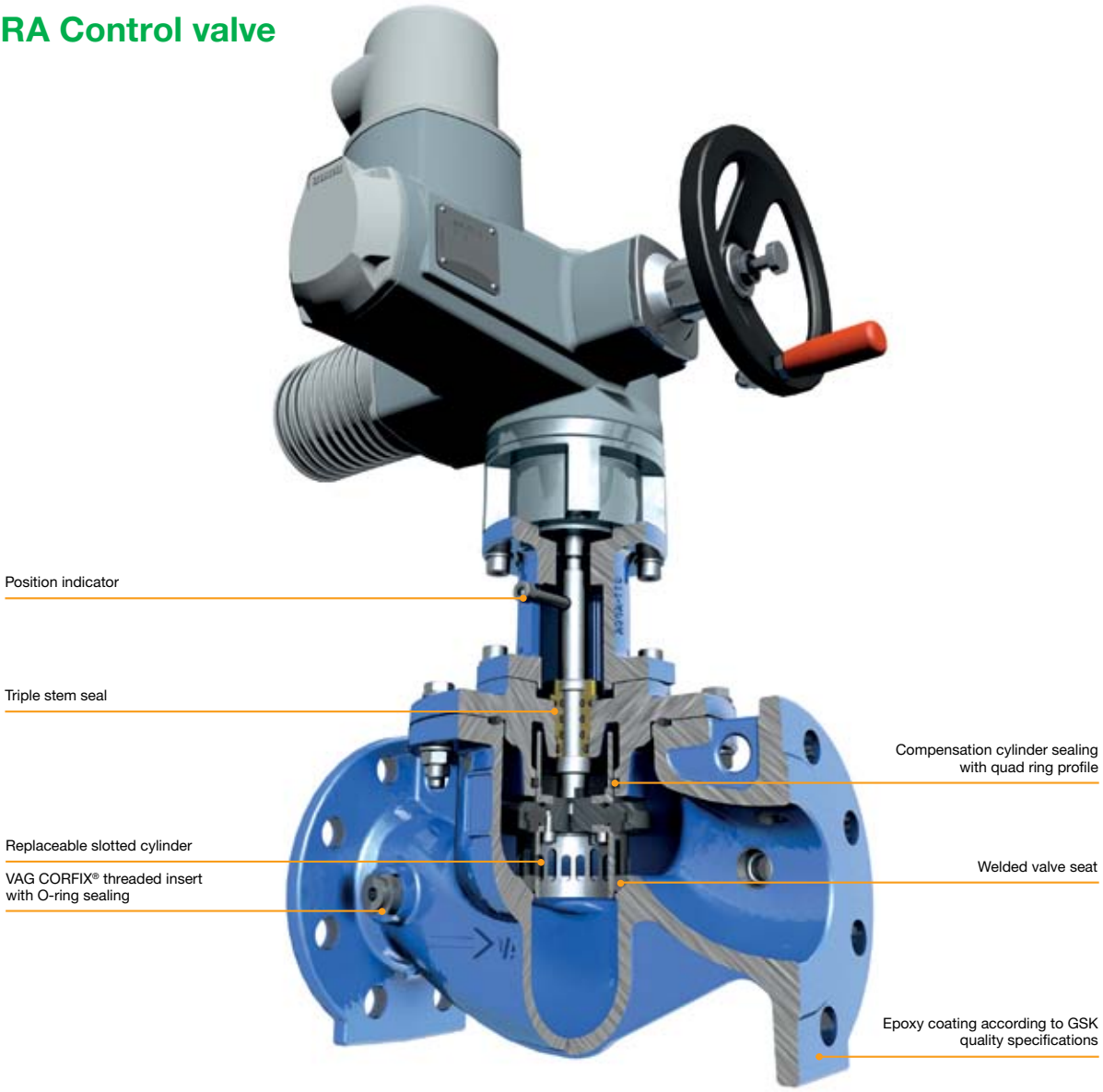
Technical details

- Nominal pressure PN 10 / 16
- Nominal diameter 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
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
  - DN ≥ 350 on request
  - PN 25 on request
- Diaphragm and sealing made of EPDM according to DVGW W270

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 diameter 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
- Actuator types:
  - With a manual gearbox
  - With electrical actuator
- Inside and outside epoxy coating according to GSK specifications
- Special versions:
  - PN 25 on request
  - Special materials available on request
  - 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.
- VAG CORFIX® press-fitted threaded inserts prevent exposed cast areas around connections and the development of corrosion.
- 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 KSS*plus* 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 of DN 400...3000 (DN>2000 upon request)
- Application: Water
- Standard version: Sliding rail at the front and back, holding device, seat ring and jacket pipe on the cylindrical sleeve made of stainless steel, body as a welded construction made of S355J2
- Inside and outside epoxy coating
- Actuator types:
  - With a manual gearbox
  - With electrical actuator
  - With hydraulic actuator
- Special versions:
  - 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 metallic and secondary resilient sealing, making the system particularly durable.
- Easy to maintain, because
  - 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).

Notes

Notes

Reference projects

Ouagadougou, Burkina Faso

VAG PICO® Pilot Operated Control Valve, VAG EKO®*plus* Gate Valve, VAG flow meter and VAG pressure sensors

Liuj hydropower plant, China

VAG KSS Hollow-Jet Discharge Valve

Leibis Lichte reservoir, Germany

VAG RIKO® Plunger Valves

Asahan hydropower plant, Indonesia

VAG KSS Hollow-Jet Discharge Valve

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