

Large diameter gate valves



A new concept in valve design



A brand new valve generation!



The sizes DN 450, 500 and 600 are part of the AVK range of high quality gate valves. Unlike most other large diameter gate valves the AVK valves are resilient seated. The rubber coated wedge ensures tight closure and is capable of seating even when small fragments are present in the bore. Polyacetal shoes on the wedge guides give extra protection against wear of the rubber and also reduce the closing torque.

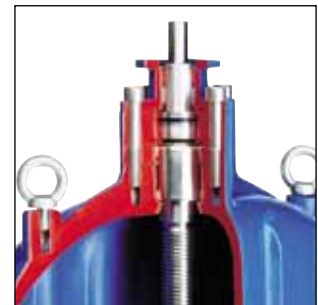
Furthermore the valves are constructed with a straight and full bore in contrast to other valve types, e.g. metal seated gate valves and butterfly valves. This feature prevents head loss in the piping system, deposits in the valve bore, and facilitates pipe pigging.

For above ground or chambered installation the AVK PowerSaver™ gate valves feature a patented design which provides built-in torque reduction.

This design results in essential cost savings. No gearing is needed and smaller electrical actuators than usual are sufficient for effective and cost saving valve operations.

The construction ensures more than 60 % reduction of the maximum closing torques compared to the norm for gate valves, but without increasing the number of turns from fully open to fully closed position significantly.

Thus the large AVK gate valves combine low costs with safety and long life in service!



*The AVK PowerSaver™ is a registered trade mark.
The AVK PowerSaver™ feature is patented world-wide.*



During laboratory tests at BHR Group in the UK the AVK PowerSaver™ valves have proved to be considerably less power consuming than gate valves of traditional design.



The rubber is vulcanised onto the wedge by AVK GUMMI A/S, one of Europe's leading manufacturers of high technology moulded rubber components.

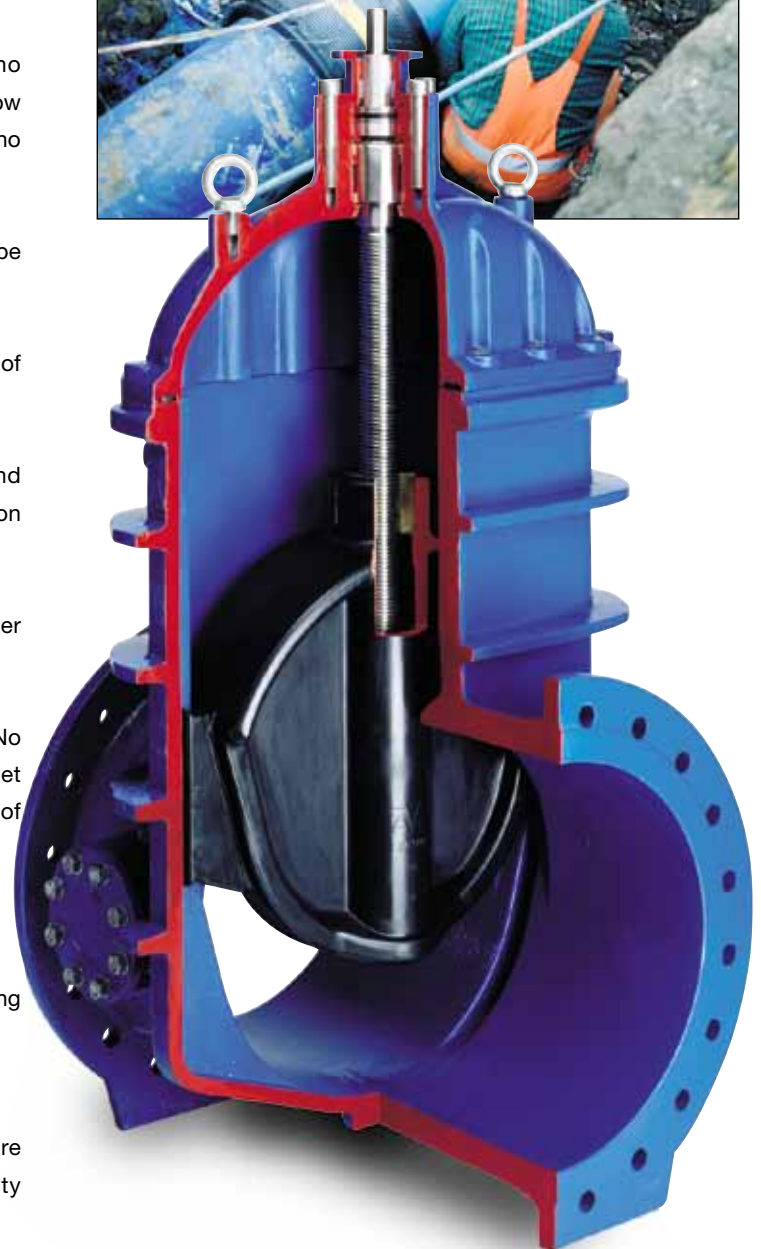
Large diameter valves with major advantages

Features

- Very low torques for AVK PowerSaver™ valves
- ISO top flange
- Wedge fully vulcanised with rubber
- Guides on wedge and in valve body, polyacetal shoes on wedge guides
- Full bore to nominal diameter
- Smooth, straight valve bottom
- Stainless steel stem with three independent stem sealings
- Fixed integral wedge nut
- Countersunk bonnet gasket and bonnet bolts covered with hot melt
- Lifting eyes in valve bonnet
- Standard valves are delivered complete with By-Pass
- AVK PowerSaver™ valves are delivered with blanked bosses
- External bolts of stainless steel

Benefits

- Essential cost savings for Actuation
- Direct mounting of standard actuators
- No corrosion, the rubber absorbs minor particles ensuring 100% tight closure
- Uniform closure, no overload of the stem, low free running torques, no wear of the rubber
- Minimum head loss, pipe pigging possible
- No sump for collection of deposits
- Optimum strength and valve operation, no friction or corrosion
- No vibration or noise under flow conditions
- 100% tight assembly. No displacement of bonnet gasket, no corrosion of bolts
- Easy handling
- Slow filling and discharging of the mains possible
- Can be used for pressure monitoring, water quality sampling etc.
- High corrosion resistance steel



The range meets all requirements



Face to face dimensions and flange drillings

Face to face dimension is to EN 558-1 basic series 15 / DIN 3202 part 1, F5 as standard and optionally to ANSI B16.10.

PN 10, PN 16 and ANSI B 16.1 flange drillings are standard options.



AVK PowerSaver™ valve with handwheel

Manual operation with handwheel is possible due to the low torques of the AVK PowerSaver™ valves.



Standard valve with gearbox

Other types of gears and fixed or telescopic extension spindles are available for installation below ground.



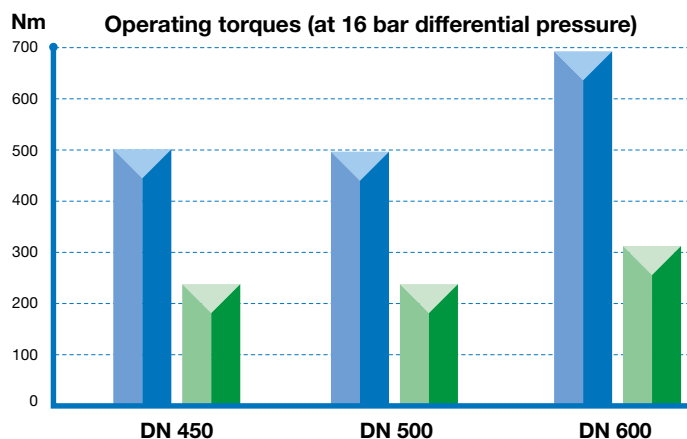
Standard valve with By-Pass

The By-Pass is not necessary for the valve function, but enables slow filling and discharging of the mains.



Standard valve with stem cap

For operation with T-key.



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