



**EXPECT
RELIABLE
PE BALL VALVES**

Expect... **AVK**

AVK CERTUS RANGE

The AVK CERTUS Series 85/30 is an extensive range of PE ball valves up to OD180mm, which have been extensively and independently type tested against worldwide leading standards such as EN1555-4, GIS/V7-2 and EN12201-4.

The AVK CERTUS ball valves have undergone additional testing over and above that required in the specifications. This ensures that the valve is suitable for distribution systems and environments anywhere in the world.

The extensive AVK CERTUS ball valve range consists out of multiple sizes starting as of OD20 up to OD180mm. Depending on the requested pressure rating the valves are available with SDR11 or SDR17.6 spigot ends.

The valves are UNIVERSAL, meaning the same valve can be used for multiple application areas. The selected materials are tested and approved for both GAS and WATER applications. When used in GAS applications the valves are rated up to MOP 10 and in case of WATER applications PN 16.



RELIABLE VALVE ACCESS SYSTEM

As with all valves, best practice techniques should be used during installation and operation. To aid this process a series of recommended accessories is available, this includes a reliable installation and access system and retrofit extension spindles.

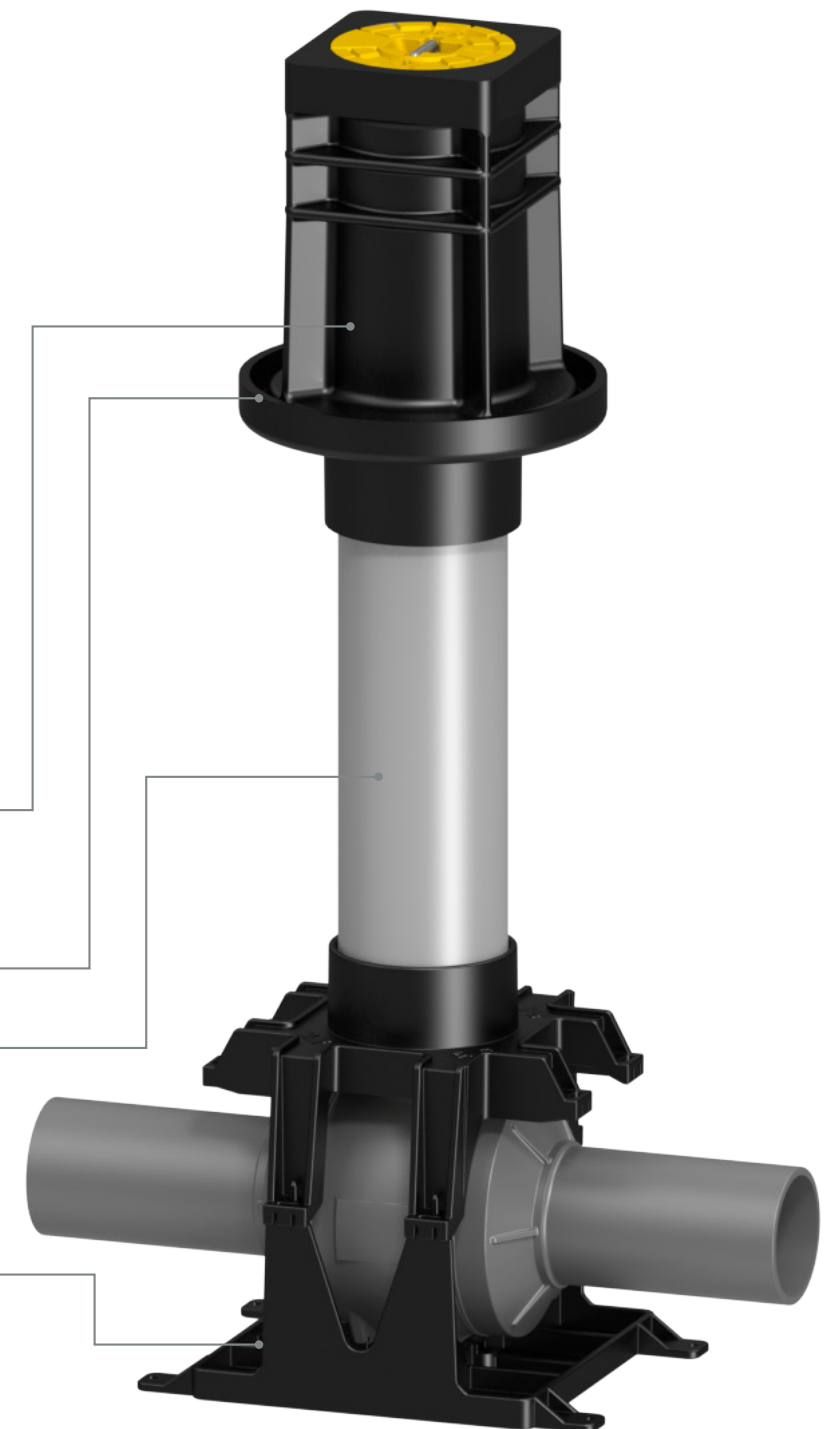
The valve access system consists of a support base, down pipe, surface box adaptor and surface box. The support base creates stability for the valve and avoids twisting of the pipe, but it also absorbs high loads and centres the down pipe installed on top of the valve ensuring valve operation at all times. The adaptor and surface box complete the valve access system. Besides giving access to the lower buried valve the surface box can bear media identification for easy recognition and, if required, customer specific logos.

AVK's wide range of **surface boxes** granting access to lower buried valves at all times.

Ideal transition between surface box and down pipe by use of a **surface box adaptor**.

Flexible height adjustment with cut to length **down pipe**.

Robust **support base** avoids twisting of the pipe and offers stability.



FEATURES & BENEFITS

Body and spigots manufactured from high performance **PE100**. Valves can be welded to all PE100 and PE80 pipes.

The spigots are butt welded to the body. **Visual beads** reassuring joint quality for each weld.

Modular design of topcap allowing for customer specific versions and a variety of accessories.

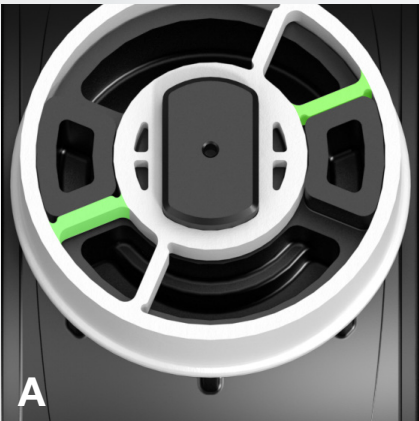
The valves are equipped with a **weather seal** avoiding ingress of ground water and dirt into the operating mechanism.

All spigot ends can be delivered with **double spigot length** allowing for a second electro fusion weld if the first one fails.

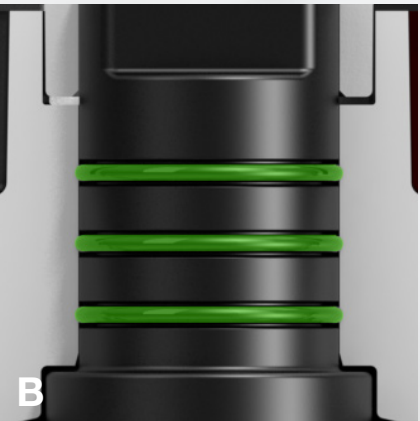
All AVK CERTUS valves are designed with a **clearway bore for all body sizes** ensuring no additional pressure drop and greater flow through the valve for the same pressure. The clearway bore allows for pigging of pipes.

The **spigot ends are machined** on the inside as well as on the outside, guaranteeing a uniform wall thickness, allowing for optimal welding of electro fusion couplers and the smooth inner surface prevents deposits and will minimise flow resistance.

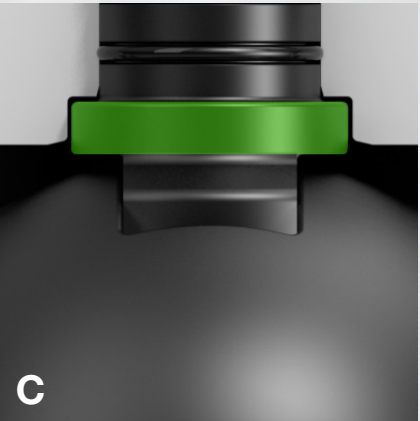
The floating ball principle and **special shaped ball seats** are designed to ensure sealing at all times and be less affected by dirt or debris.



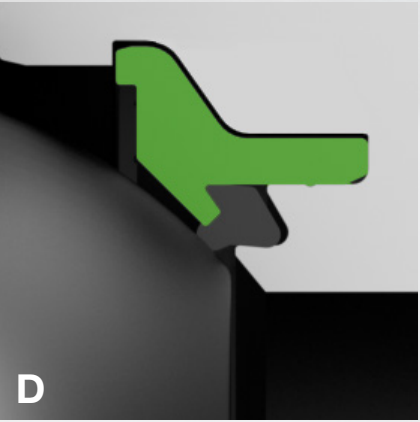
If the valve is over torqued, the topcap is designed to fail before the valve seals, thus preventing a leak to atmosphere. The **safety topcap** can be replaced easily under live conditions.



Triple O-ring construction around the stem guaranteeing sealing safety at all times.



The intentionally over-designed stem is extremely strong and of the **anti blow-out** type.



The **seat retainer** design ensures the ball seat is kept in place at all times. This optimal design prevents the ball seat from being dislodged, which guarantees a good functionality throughout the years.

QUALITY IN EVERY STEP

Construction & material selection

The AVK CERTUS ball valves are made out of PE100 and can be welded to all PE100 and PE80 pipes.

The main internal construction of the AVK CERTUS is based on a sophisticated seat arrangement for reliable sealing performance. By means of a seat retainer, the ball seat is firmly kept in place. The seat compression is accurately set during the welding. The spigots are butt welded to the body. Butt welding is chosen because of the long term practically proven reliability. For the welding, the leading DVS2207-1 guidelines are strictly followed. The skimming and welding steps are

performed by fully automated welding stations, guaranteeing ultimate consistency of the ball valves.

For the sealing high quality and durable NBR rubber is used. The ball is made out of an engineering plastic that has very good scratch resistance and is carefully machined for lowest operating torque. Next to this, the chemical resistance to a very wide range of media is covered. The grease has been selected after numerous tests to achieve the maximum ease of operating. This universal grease has a very low wearing off from the lubricated surfaces, ensuring the long term performance of the valve.

Approvals & testing

AVK CERTUS valves are fully type tested at an external worldwide reputable laboratory. The valves meet all the requirements of the EN1555-4, ISO4437-4, GIS/V7-2 and EN12201-4.

During type testing, the valves are not only submitted to various long and short term leaktightness checks, but also to rigorous pulling, bending and thermal cycling tests. The operating mechanism and topcap can withstand high prescribed torques at extreme temperatures.

AVK Syntec is equipped with advanced test equipment, ensuring the highest quality of valves. Each valve is tested for operating torque and leaktightness at low and high pressure. Besides, per batch, valves undergo hydrostatic strength testing (at elevated temperatures) to confirm long term performance.

IDENTIFICATION & TRACEABILITY

Full traceability in a few simple steps...

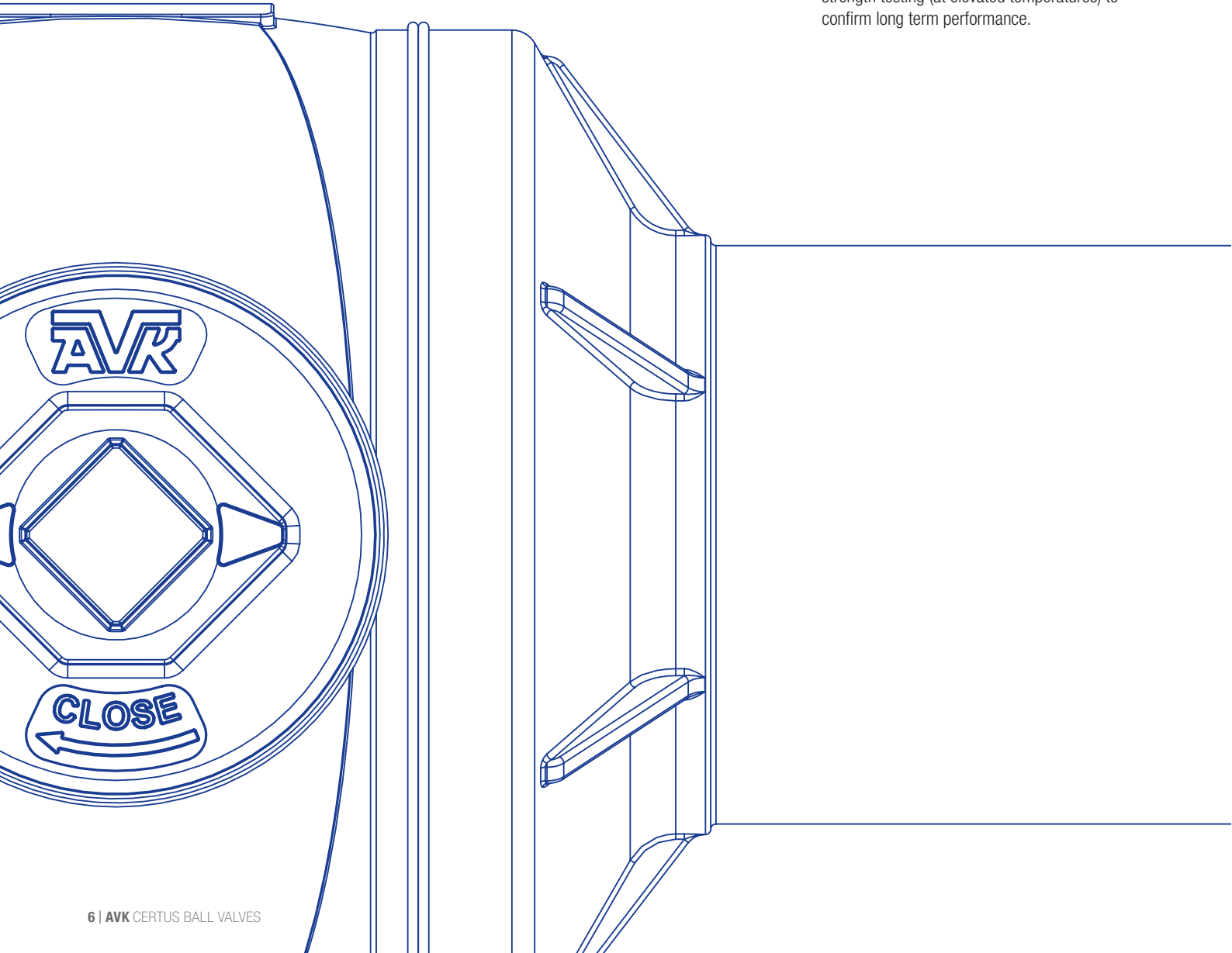
All AVK CERTUS valves carry a unique serial number that is permanently dotmarked in the valve body directly after the welding process. Via this serial number all testing and production data for each individual valve can be retrieved. Also batch information of the raw material for every component is stored.

In response to increasing demand on accurate and effective asset management, AVK has developed the AVIT system: AVK Valve Installation Tracker. With the AVIT system, key valve and installation data is stored together.

This allows customers to fully record, track and identify exactly where their AVK valves are located. The AVK CERTUS valve carries a QR code that can be scanned by using a simple app and smartphone. Next to the exact location data, a picture of the installed valve is saved.

AVIT Web portal

Via the AVIT Web portal the recorded valve data, including all the customer valve installation information gathered by the mobile application, can be accessed at a glance. This allows for easy and effective auditing of installed works.



AVK Syntec CO., LTD.

Wujiang Industry Park, Hexian,
Maanshan City,
Anhui Province, P.R.China

Tel.: +86(0)555-5968701

+86(0)555-5968702

Fax.: +86(0)555-5968706

Email: info@avksyntec.com

Web: www.avksyntec.com

Copyright©AVK Group A/S 2016

Expect... **AVR**