

## AKH2.2 Lined Ball Valve\*

(Patent No. EP 0 645 565 B1)



The Atomac full port AKH2.2 lined ball valve has the same characteristics as the AKH2 however the AKH2.2 offers enhanced features to improve suitability for toxic and corrosive applications. AKH2.2 design has a static and dynamic middle flange seal and in comparison with the AKH2 the metal-to-metal body joint which protects this seal. The metal-to-metal body joint absorbs destructive pipe vibrations and distortions so that there will be no negative effects on the sealing performance.

Thermal cycling does not require retightening of the bolts anymore. Seats have a larger diameter and therefore create less flow turbulences across the seat area and the integral retention lip cares for extra seat stability. The AKH2.2 incorporates a live loaded stem seal which makes this valve TA-Luft approved.

\* Also available with FEP and PFA-conductive liner materials as well with a V-ball for precise modulating control service

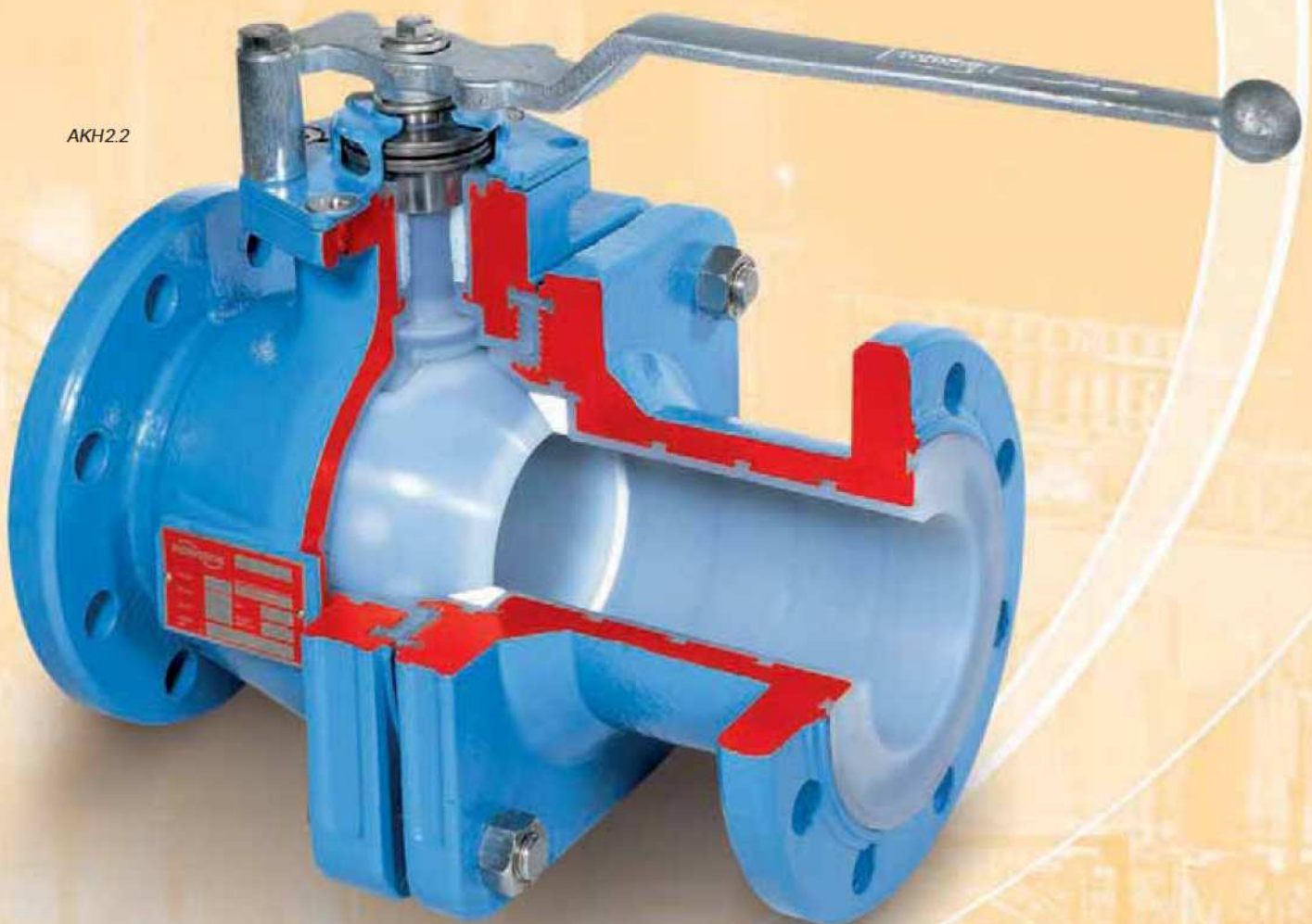


AKH2.2 with ceramic ball



AKH2.2 PFA-conductive lined

AKH2.2



## ARK2, ARV2 Check Valve



### ARK2 – Swing Check Valve

The fully PFA lined atomac swing check valves are ideal for use in highly corrosive applications and can replace swing check valves made from exotic alloys due to the universal chemical resistance of the fluoropolymer lining. These valves can be used in horizontal and vertical installations due to the special design of the hinge pin, which enables the disc to achieve a seal without support of any system pressure. The ARK2 is a 2-piece design eliminating a potential leak path of conventional 3-piece designs with a seat face integrated in the body liner to seal against the disc in the closed position. The disc can swing freely within piping system without interference with the diameter of the connecting pipe.



ARK2

### ARV2 – Lined Ball Check Valve\*

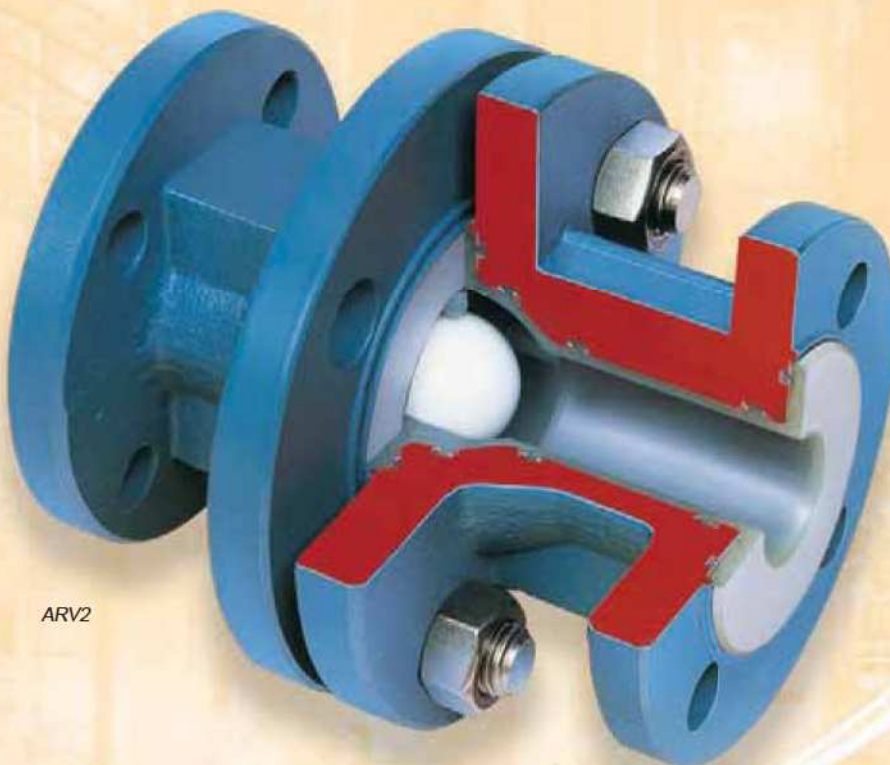
This two piece body designed check valve provides high stability, rigidity and eliminates potential leak path and can be installed either vertically and dependent upon application horizontally as well. Ball material consists of solid PTFE.

Liner materials such as FEP, PFA and conductive PFA have outstanding corrosion resistant properties.

The ARV2 can be considered as a full port design which offers excellent flow characteristics.

Low opening pressure is needed to unseat the ball in then vertical position.

\* Optional PTFE hollow ball/spring supported/PFA-conductive

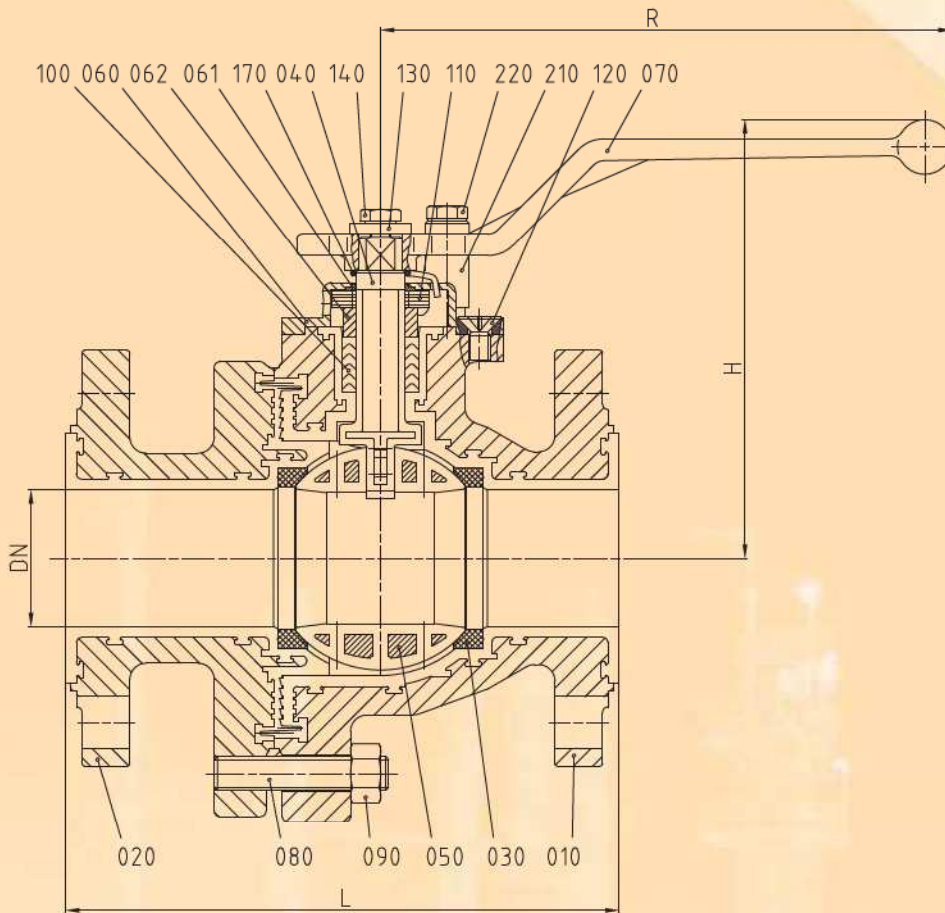


ARV2

> For options and sizes/technical info see page 36/37

# Technical Data

## AKH2.2



**DIN**  
**Face-to-Face Dimensions:**  
 DIN EN 558-1 (Basic series 1)  
**Flange Connection:**  
 DIN 2501-1 PN16

**ANSI**  
**Flange Connections:**  
 ANSI B 16.5 - 150lbs

### AKH2.2 - material specification

| No. | Designation              | Material  |
|-----|--------------------------|---|
| 010 | body                     | ductile cast iron - EN-JS1049/ASTM A395, PFA° / FEP°  |
| 020 | side piece               | ductile cast iron - EN-JS1049/ASTM A395, PFA° / FEP°  |
| 030 | seat ring                | PTFE  |
| 040 | stem                     | stainless steel / Hastelloy C4**, PFA   |
| 050 | ball                     | stainless steel / ductile cast iron - EN-JS1049/ASTM A395 / ceramic Al <sub>2</sub> O <sub>3</sub> *, PFA° / FEP° |
| 060 | top cap                  | stainless steel - 1.4308  |
| 061 | sleeve                   | PTFE  |
| 062 | spacer                   | stainless steel - 1.4304  |
| 070 | hand lever               | die-cast metal / ductile cast iron - EN-JS1082/ASTM A536 (galvanized)   |
| 080 | stud bolt / hexagon bolt | stainless steel - 1.4301-K70*   |

| No. | Designation                             | Material                      |
|-----|---|-------------------------------|
| 090 | hexagon nut                             | stainless steel - 1.4301-K70* |
| 100 | packing material (chevron)              | PTFE° / PTFE-graphite°        |
| 110 | belleville washer                       | stainless steel - 1.4301      |
| 120 | countersunk screw                       | stainless steel - 1.4301      |
| 130 | lock washer                             | stainless steel - 1.4301      |
| 140 | hexagon bolt                            | stainless steel - 1.4301      |
| 170 | grounding device / curved spring washer | stainless steel - 1.4310      |
| 210 | stop                                    | steel (galvanized)            |
| 220 | hexagon bolt                            | stainless steel - 1.4301      |

\* ceramic ball on request  
 ° optional  
 ° other on request

\*\* Hastelloy stem on request

### AKH2.2 - dimensions - DIN

| DN/DIN | L   | H   | R   | weight  |
|--------|-----|-----|-----|---------|
| 015    | 130 | 120 | 160 | kg 4,0  |
| 020    | 150 | 120 | 160 | kg 4,8  |
| 025    | 160 | 123 | 160 | kg 5,4  |
| 032    | 180 | 145 | 210 | kg 10,2 |
| 040    | 200 | 145 | 210 | kg 10,7 |
| 050    | 230 | 160 | 210 | kg 14,1 |
| 065    | 290 | 200 | 313 | kg 24,0 |
| 080    | 310 | 207 | 313 | kg 31,0 |
| 100    | 350 | 220 | 313 | kg 47,5 |

### AKH2.2 - dimensions - ANSI

| DN/ANSI | L     | H   | R   | weight  |
|---------|-------|-----|-----|---------|
| ½" *    | 130   | 120 | 160 | kg 4,3  |
| ¾" *    | 150   | 120 | 160 | kg 4,6  |
| 1"      | 152,4 | 123 | 160 | kg 5,0  |
| 1½"     | 178   | 145 | 210 | kg 8,4  |
| 2"      | 203   | 160 | 210 | kg 12,8 |
| 3"      | 241   | 207 | 313 | kg 29,1 |
| 4"      | 292   | 220 | 313 | kg 43,5 |

\* Face-to-Face Dimensions acc. to DIN EN 558-1 (Basic series 1)