ASSURED AUTOMATION

Ares & Zeus Series Angle Seat Valves

Installation & Maintenance

CISQ Certified

assured**automation**.com

1-800-899-0553

Features

The 2/2 Assured Automation Angle Valves are pneumatically operated and extremely reliable. They guarantee a high number of working cycles as well as bubble tight sealing. They are equipped with a self-lubricating and self-adjusting plug-stem set that automatically adjusts itself as it wears. They are also supplied with a scrapper to avoid the introduction of foreign bodies in the sliding area. The self-aligning plug, with a seal in PTFE, guarantees tight closure even in the most arduous conditions. The ARES valves which are supplied in stainless steel (AISI 316) guarantees high compatibility with most media. The ZEUS product having a bronze body and internal parts in AISI 316 ensure reliability and low acquisition cost running for all applications that are compatible with bronze RG6 (Ni < 2%). All versions are equipped with an actuator made in engineering resin.

Application Guidelines

Control Media:

Dry, filtered compressed air (or other neutral gasses,) not necessarily lubricated

Pressure: 11 PSIG to 150 PSIG (0.8 bar to 10 bar) (see sizing charts)
61 PSIG (4.2 bar) to 116 PSIG (8 bar) (spring return)

Temperature: 14˚F to 140˚F (-10˚C to 60˚C) (PA66 control head)
23˚F to 266˚F (5˚C to 130˚C) (PPS optional)

Working Media:

Air, water, oil, petrol, saline solution, steam, etc.
(any substance that is compatible with AISI 316, PTFE, or Bronze RGB)

Pressure: 0 to 232 PSIG (0 to 16 bar) (see sizing charts)
0 to 150 PSIG (0 to 10 bar) (for steam)

Temperature: 14˚F to 356˚F (-10˚C to 180˚C)

Maximum Viscosity: 600 cst (mm^2/s)

Media Direction: See table attached

Installation:

There are different versions of the Assured Automation Angle Valve, depending on the operating mode, the chosen valve combination and the preferred flow direction. For this reason it is necessary to carefully read all the information contained on the label. In particular: Temperature of media, pressure (both controlling and intercepting pressure) and direction of flow. Before beginning to install the valve, it is best to de-pressurize the system, clean the pipes carefully from any residue, dribble or welding residue, to avoid any damage to the seal. Then connect the pipes according to the reference points (flow direction) found on the valve body. Depending on the kind of employment, slightly lubricate the male end of the threaded pipe; do not lubricate the threading on the female end of the pipe. In order to tighten it, do not use the valve as a support. Do not over-tighten. Angle Valves can be installed in any position, because the adjustable control head that can turn 360˚ to facilitate access to the control ports. The connection to such ports (power supply and discharge) depends on the valve model (whether it is N.C or N.C. or D.A.) and must be carried out following the appropriate procedure for each version. Installation must be carried out by qualified personnel.

Maintenance:

Before Proceeding!

1. Ascertain that the nature of the media is not corrosive, flammable, or polluting, or in any way dangerous.
2. Before taking the valve apart, make sure that there is no pressure in the system, both before and after the position of the valve. It is best to isolate the valve during maintenance.
3. Before starting any procedure:
   - put on protective eyewear
   - put on overalls, gloves, and helmet
   - ensure that there is running water available nearby
   - position the correct fire extinguisher (depending on the media) nearby, if the media contained in the valve is flammable.

The maintenance of each valve depends on the conditions of its application. Valves should be cleaned and serviced regularly. During each procedure, it is necessary also to check the state of each component to make sure that they are not worn out. Intervention is essential when one of the following happens:

- Unusual noises
- Dripping
- Reduced flow rate (under normal pressure)
- Increased pressure drop

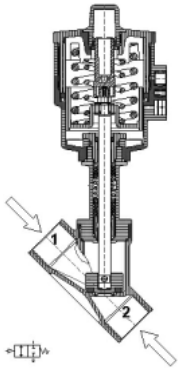
If any of these occur, the body of the valve must be taken apart, the inside carefully cleaned, and any damaged part replaced.

Preventative Maintenance

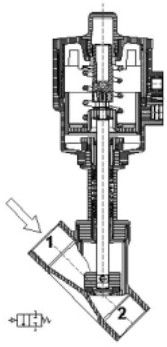
- Test the valve at least once a month to verify that it opens and closes correctly
- Regularly verify the state of all connections for both incoming and outgoing media.

Functional Diagrams:

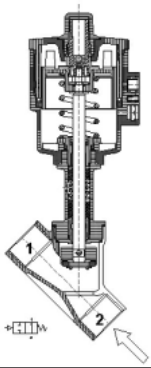
Normally Closed
Bi-Directional Flow



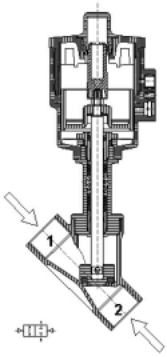
Normally Closed
Flow from Above



Normally Open
Flow from Below



Double Acting



Steam Always 1 to 2

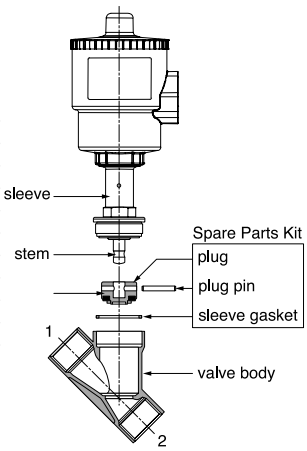
Replacement Parts:

The essential spare parts for all Assured Automation angle valves are supplied in a SPARE PARTS KIT. It includes a sleeve gasket, plug and plug pin.

1. Unscrew the actuator sleeve from the valve body.
2. Take the plug pin out.
3. Extract the plug from the stem and clean all accessible parts.
4. Change the plug.
5. Replace the plug pin, caulking it.
6. Change the sleeve gasket.
7. Screw the actuator sleeve back onto the valve body. Check that there is no internal or external leaking and that the valve is functioning correctly before returning it to service.

Replacement Part Kit Numbers

316 SS Body ARES Kit	Bronze Body ZEUS Kit	Size	Head
KGJP1003	KGJP2003	3/8”	DN 50
KGJP1004	KGJP2004	1/2”	DN50
KGJP1005	KGJP2005	3/4”	DN 50; DN 63
KGJP1006	KGJP2006	1”	DN 63
KGJP1007	KGJP2007	1-1/4”	DN 63
KGJP1008	KGJP2008	1-1/2”	DN 63
KGJP1009	KGJP2009	2”	DN 63
KGJP1106	KGJP2106	1”	DN 90
KGJP1107	KGJP2107	1-1/4”	DN 90
KGJP1108	KGJP2108	1-1/2”	DN 90; DN 110
KGJP1109	KGJP2109	2”	DN 90; DN 110



Accessories:

Stroke Limiter

Setting the Open Position of the Valve Stem

1. Loosen nut B in order to release the stem.
2. Adjust the height for the stroke limiter by screwing nut A to the desired location.
3. Screw nut B on to fix the stem.
   Please note: Part C must not move

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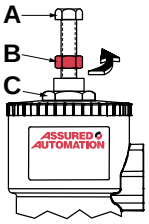

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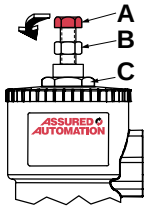

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