

## VAG RSK Swing Check Valve



## 1. General

To ensure problemless installation, long-termed and secured usage of the product RSK Swing Check Valves PN 10 a PN 16 – flange connection according to KAT 1545-A follow please instructions mentioned in this document.

RSK Swing Check Valve PN 10 and PN 16 – flange connection (further called as check valve) automatically protect passages of pipes and facilities installed before the check valve against unto-ward effects of backward shocks (water hammers). Backward shocks come up as result of that working liquids (understood as complex pipes and facilities included) do not behave as fully incompressible.

By-pass is used for pressure equalization in pipes upstream and downstream of the check valve or for discharge or filing of pipes. Lever and weight shorten time necessary for automatic adjustment of disc to position "CLOSE" thereby shorten water hammers effect. Lever and weight visually make for checking of check valve function.



Warning! The check valve is not shut-off valve and it always shows permissible leakage. „Absolute“ tightness would always require permanently certain adherence pressures in seats, this necessary condition is not possible to ensure in common operating.

## 2. Design

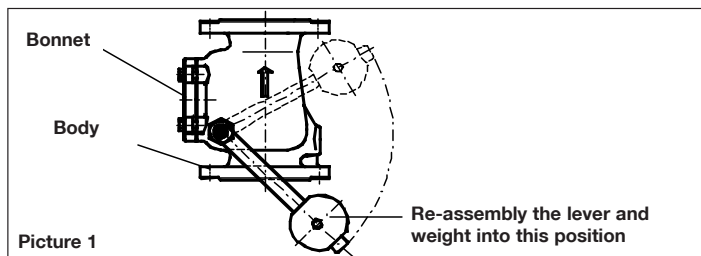
One-way automatic check valve, with flanges of type 21, shape B, connecting dimensions as per PN 10 and PN 16 according to EN 1092-2. They are used for exterior, interior or shaft installation.

## 3. Product Protection

Main principles of storage are described in document INSTRUCTION KAT 99 00-B.



Install the check valve into horizontal or vertical part of pipe. Pre-cast arrow on body must be in accordance with flow direction. In case of horizontal installation must be bonnet of the check valve up, position of installation is decisive for check valve RSK – installation must be up (check visually in flow passage in flow direction and at the same time simulate disc movement by long butt-end rod). In case of installation into vertical pipe must be flow direction up, if the check valve has lever and weight, than it is necessary re-assembly the lever into position as mentioned on picture no. 1 (drawn is the check valve RSK with lever and weight in position "CLOSE").



Accident risk! At the moment of opening and closing of the check valve – positions "OPEN-CLOSE" and back, lever and weight are performing forceful movement. Therefore it is necessary to protect critical place, for instance by cover or No Admittance.

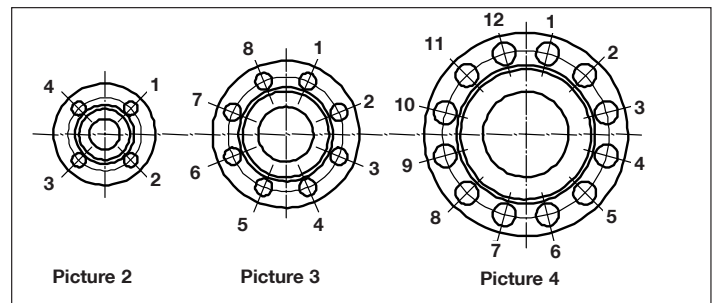
All instructions and regulations for safety and health protection at working are to be kept! Use preventative working means and devices provided by the employer!

## 4. Installation into pipes

1. Remove blinds from flow passage and check, if delivered check valve is in accordance of project (flanges drilling, number of holes at DN 80, seats material (body / disc), corrosion protection (synthetic or epoxy coating).
2. Clean regularly sealing surfaces of the valve.
3. Prepare screws of needed length and sizes included washers and nuts for flange connections.
4. Grease screws by slight thickness of lubricant grease. Prepare gaskets between flanges.
5. Remove impurities and undesirable things from flow passage of pipe and from surfaces for gaskets of pipe and check valve flanges.
6. Put the check valve to pipe flange, pre-cast arrow on the body must be in accordance with flow direction, put through 1+1screw into holes in left and right half of the flange.
7. Put on the washers and screw the nuts.
8. Insert the gasket between flanges.
9. Add other screws, washers and nuts. Tighten slightly the nuts crosswise.
10. Tighten the nuts according to following figures in the prescribed order by torque Mk as stated below:
  - 4 holes in the flange in the order 1, 3, 2, 4 according to picture no. 2
  - 8 holes in the flange in the order 1, 5, 3, 7, 2, 6, 4, 8 according to picture no. 3
  - 12 holes in the flange in the order 1, 7, 4, 10, 2, 8, 5, 11, 3, 9, 6, 12 according to picture no. 4



Warning: Nuts M16 tighten by torque Mk 79Nm, for M20=Mk 157Nm and for M24=Mk 275Nm. The tighten procedure shall be one times repeated!



11. The mounting of the opposite connection to be carry out identically.
12. Fill pipe by liquid.
13. Check up connection leakage with pipes and check product function. Repair the respective defects immediately.

## 5. Maintenance and repairs

1. The check valve is maintenance free valve. In respect of working conditions follow the check valve function.
2. Repairs in time of guarantee are made by the manufacturer or by him entrusted service body only.
3. Substitute worn parts by origin unused spare parts.
4. It is forbidden to mount once again the gasket, which have been already used.



VAG-Armaturen GmbH

Carl-Reuther-Str. 1  
68305 Mannheim  
Germany  
Phone +49 621 749-0  
Fax +49 621 749-2153  
info@vag-armaturen.com  
www.vag-armaturen.com