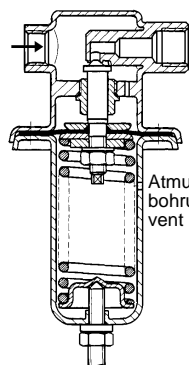


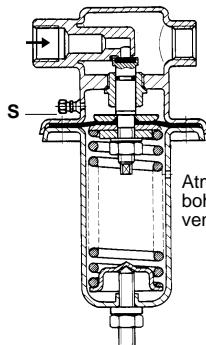


**BETRIEBSANLEITUNG / OPERATING INSTRUCTIONS**  
**ÜBERSTRÖMVENTIL / OVERFLOW VALVE**  
**TYPE 3.5**

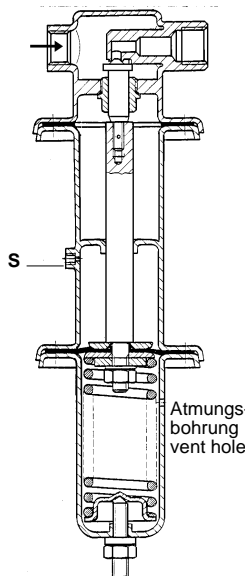
Blatt Nr. / Sheet no.  
 UV 3.5/4.1.91.1.1



Atmungs-  
bohrung  
vent hole



S =  
Steuerleitungsanschluß  
control line connection



Atmungs-  
bohrung  
vent hole

**Artikel Nr.**

**Fabrik Nr.**

**Serial no.**

Auftragsbestätigungs Nr.

Order confirmation no.

K<sub>vs</sub> Wert m<sup>3</sup>/h

K<sub>vs</sub> value m<sup>3</sup>/h

Vordruckbereich bar

inlet pressure range bar

• = Wartungssatz / servicing set

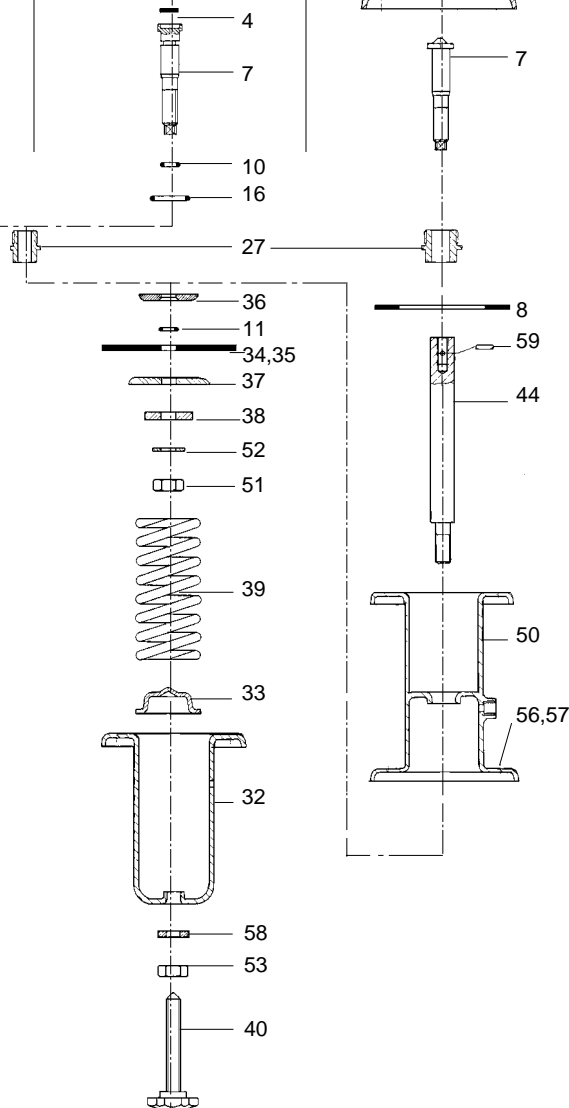
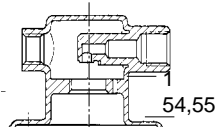
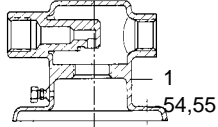
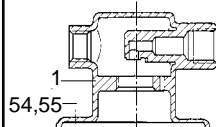
**Type 3.5, 3.5S, 3.5Z**

1	Gehäuse	body	
4	Kegeldichtung	cone sealing	•
7	Kegel	cone	
8	Dichtung	gasket	•
10	O-Ring	O-ring	•
11	O-Ring	O-ring	•
16	O-Ring	O-ring	•
27	Führungsbuchse	guiding bush	
32	Federhaube	spring cap	
33	Federteller	spring plate	
34	Schutzfolie	protection film	•
35	Membrane	diaphragm	•
36	Membranscheibe	diaphragm plate	
37	Membranscheibe	diaphragm plate	
38	Federführungsscheibe	spring guiding plate	
39	Feder	spring	
40	Stellschraube	set screw	
44	Spindel	spindle	
50	Zwischenstück	mid section	
51	Sechskantmutter	hexagon nut	
52	Federscheibe	spring washer	
53	Sechskantmutter	hexagon nut	
54	Inbusschraube	screw	
55	Sechskantmutter	hexagon nut	
56	Inbusschraube	screw	
57	Sechskantmutter	hexagon nut	
58	Dubo Sicherung	Dubo gasket	
59	Knebelkerbstift	pin	

**Type 3.5**

**Type 3.5 S**

**Type 3.5 Z**





# OPERATING INSTRUCTIONS OVERFLOW VALVE TYPE 3.5

Sheet no.  
UV 3.5/5.1.91.1.1

## MODE OF OPERATION

The inlet pressure which is to be controlled acts on the diaphragm. Under normal operating conditions the force of the diaphragm and of the spring are in equilibrium. When the inlet pressure exceeds the set value, the valve opens; when the inlet pressure drops below the set value, the valve closes. When the line is not pressurized, the valve is closed.

## INSTALLATION

Before the valve is installed, the line has to be flushed carefully. If foreign bodies and impurities cannot be avoided during operation, it is advisable to install a strainer. Remove package material, including plastic plugs, and install the valve in the non pressurized line in such a way that the arrow on the body points in the direction of flow. The spring cap can point either upwards or downwards, if it is not specified otherwise. When the valve is used for fluids or steam, it has to be installed with the spring cap pointing downwards and the air has to be released by means of a manual air valve. The place of installation should be a horizontal section of the line, where the flow is undisturbed. Avoid elbows, shut-off valves or other throttle-like places close to the valve. The diameter of the control line should correspond to the connection of the valve. Type 3.5 S and 3.5 Z has to be installed with control line. The control line has to be connected at a distance of at least 10 times the nominal diameter before the overflow valve.

## SAFETY DEVICES

If it is not specified otherwise, the overflow valve has to be secured in such a way that 1.5 times the maximum set value is not exceeded - e.g. with a setting range of 2 - 5 bar, the blow-off pressure can amount to a maximum of 7.5 bar, but it must not exceed the nominal pressure of the body.

It has to be secured that the fluid which escapes from the spring cap in case of a broken diaphragm does not cause any danger. If necessary, a valve with a closed spring cap should be applied and connected with a pipe to lead the escaping medium away.

## START UP

Functioning and tightness of the valve have been checked at the works. The valve is delivered with released spring. To put the valve into operation the inlet side of the valve has to be opened slowly; at the same time it must be ensured that the fluid is lead away on the outlet side. Avoid pressure shocks. Then the inlet pressure which is to be controlled must be set by means of the adjusting screw. When medium is steam, the control chamber has to be filled up with water via the control connection or the filling screw.

## MAINTENANCE

Depending on the characteristics of the medium and the operating conditions within the system, a maintenance has to be carried out once a year or also at shorter intervals, or the functioning of the overflow valve has to be checked.

In order to carry out a maintenance and also in case of troubles act in the following way : depressurize the valve, release the spring, remove spring cap, check mobility of the control parts. Smooth jamming parts with fine emery cloth. Leakage or damage of the diaphragm are indicated by medium flowing from the spring cap vent bore. If leakage cannot be repaired by slightly tightening the screws on the spring cap, check diaphragm.

To this end release spring. Remove spring cap. Tighten spindle nut firmly. Reassemble all parts and check tightness. If the leakage is not yet repaired, the diaphragm has to be replaced. To this end release spring, remove spring cap, loosen spindle nut on the diaphragm plate, remove diaphragm plate and withdraw diaphragm plus sealing ring. After inserting the new diaphragm plus sealing ring tighten spindle nut firmly, but tighten screws on spring cap only slightly, because diaphragm would be damaged otherwise.

Remove the spring cap as described before, remove diaphragm. Screw off guiding bush and remove cone. Exchange cone sealing, grind sealing surfaces care fully with metallic seal. Reassembling in opposite succession.

## SPARE PARTS

When ordering spare parts, please, state fabrication or article number of the valve as well as names and item numbers of the parts.

