



Qualität von Anfang an.

Original Operating Manual Spill Valves UV



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1 Foreword

Dear customer,
Dear assembler / user,

these operation and installation manuals are intended to give you the knowledge which is necessary for you to be able to carry out the mounting and adjustment of the spill valve rapidly and correctly.



Please read these instructions carefully and pay particular attention to the advice and warning notes.

Only instructed and qualified mechanic should mount, adjust or maintain the spill valves.

If you have any questions in relation to the spill valves, we shall be pleased to answer them. The telephone number will be found on the inside cover of these operation and installation manual.

Yours
END-Automation GmbH & Co. KG

2 General advice

2.1 Validity

This mounting and installation manual is valid for the standard version of the spill valve.

2.2 Inward monitoring

Please check

- directly after delivery the spill valve for any transport damages and deficiencies
- with reference to the accompanying delivery note the number of parts.

Do not leave any parts in the package.

2.3 Complaints

Claims for replacement of goods which relate to transport damage can only be considered valid if the delivery company is notified without delay.

In case of returns (because of transport damage/repairs), please make a damage protocol and send the parts back to the manufacturer, if possible in the original packaging.

In case of return, please mention the following:

- Name and address of the consignee
- Stock-/ordering-/article-number
- Description of the defect

2.4 Guarantee

For our spill valves we give a guarantee period in accordance with the sales contract.

The warranty and guarantee rules of **END-Automation GmbH & Co. KG** are applicable.

2.5 Symbols and their Signification



Paragraphs which are identified with this symbol contain very important advices; this also includes advices for averting health risks.

Observe these paragraphs without fail!



Paragraphs which are identified with this symbol contain very important advices; this also includes how to avoid damage to property.

Observe these paragraphs without fail!



This symbol indicates paragraphs which contain comments/advice or tips.



This bullet identifies the description of actions which you should carry out.

3 Safety advice

Depending on the technical circumstances and the time under and at which the spill valve is mounted, adjusted and commissioned, you must in each case take into account particular safety aspects!

If, for example, the spill valve works in an operational chemical plant, the potential hazards of commissioning have another dimension from that when this is only being carried out for test purposes in a „dry“ part of the plant in the assembly room.

Since we do not know the circumstances at the time of the mounting/adjustment/commissioning, you may find advice on hazards in the following descriptions which are not relevant to you .

Please observe (only) the advice which applies to your situation!



The spill valve must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Directive 2006/42/EC on machinery, where appropriate.

3.1. Personal protection

3.1.1. Safety advice for mounting



We wish to point out expressly that the mounting, the electrical installation and the adjustment of the spill valve and the accessories must be carried out only by trained specialist personnel having mechanical and electrical knowledge!



**Switch off all the devices / machines / plant affected by mounting or repair.
If appropriate, isolate the devices / machines / plant from the mains.**



Check (for example in chemical plants) whether the switching off of devices / machines / plant will cause potential danger.



If appropriate, in the event of a fault in the spill valve (in a plant which is in operation) inform the shift foreman / safety engineer or the works manager without delay about the fault, in order, for example, to avoid an outflow / overflow of chemicals or the discharge of gases in good time by means of suitable measures!



Before mounting or repair, remove the pressure from pneumatic / hydraulic devices / machines / plant.



Empty the conduit from medium.



If necessary, set up warning signs in order to prevent the inadvertent starting up of the devices / machines / plant.



Observe the respective relevant professional safety and accident prevention regulations when carrying out the mounting / repair work.



Check the correct functioning of the safety equipment (for example the emergency push off buttons/ safety valves, etc)!!

3.1.2 Safety advice for adjustment and starting



As a result of the starting of the spill valve the flow of gases, steam, liquids, etc. may be enabled or interrupted!



Satisfy yourself that, as the result of the starting or the test adjustments of the spill valve, no potential hazards will be produced for the personnel or the environment!



If necessary, set up warning signs in order to prevent the inadvertent starting up or shutting down of the devices / machines / plant.

By ending mounting check the correct function and the tightness of the valve.



Check the right function of all safety devices (for example emergency off push buttons / safety valves, etc.)!



Carry out the starting and the adjustments only in accordance with the instructions discribed in this documentation!

3.1.3 Safety advice for maintaining / repairing



Do not carry out any maintenances / repairs if the spill valve will be under pressure.



Before disassembling a spill vale some essential points should be clarified!

- Will the spill valve to be disassembled be replaced by another immediately?
- If appropriate, does the production process of the plant needed to be stopped?
- Is it necessary to inform specific personnel about the disassmbly?



If necessary, inform the shift foreman/ safety engineer or the manager about the maintenance or repair without delay in order, for example, to avoid an outflow/ overflow of chemicals or a discharge of gases in good time by means of suitable measures.



Switch off pilot pressure and the power supply and relieve the pressure in the pipes.



If necessary set up warning signs in order to prevent

- the inadvertent starting up of the devices/machines/plants in which the pressure reducer is mounted
- the switching on of pilot medium supply, pilot power supply and/or the power supply of actuators and accessories.



In case of defect in the pressure reducer make contact to the supplier. The telephone number will be found on the back cover of these mounting and installation manual.



If you ascertain a damage of the pressure reducer, isolate the device from the mains. Please observe the safefy advices.



Do not mount, start or adjust the pressure reducer if itself, the pipes or a mounted actuator will be damaged.

3.2 Device safety

The spill valves

- are quality products which are produced in accordance to the recognized industrial regulations.
- left the manufacturer`s work in a perfect safety condition.



In order to maintain this condition, as installer / user you must carry out your task in accordance with the description in these instructions, technically correctly and with the greatest possible precision .



We assume, as a trained specialist you are having mechanical and electrical knowledge!

Satisfy yourself that the spill valve will only be used within their admissible limiting value (see the technical data) .



The spill valves must be used only for a purpose corresponding to their construction!

The spill valves must be used within the values specified in the technical data!



The operating of the spill valve outside the nominal temperature range could destroy the sealings and the bearings.



The operating of the spill valves outside the nominal pressure range could destroy the inner parts and the body.



Do not mount, start or adjust the spill valve if itself, the pipes or a mounted actuator will be damaged.



After the maintenance or repair check the right function of the spill valve and the tightness of the pipe connections.

4 Name-plate

The spill valves will be provided with a name-plate, which permits a definite identification of the spill valves and shows the most important technical data to you. The name-plate should not be displaced or changed.



Fig. 4.1 - Name plate

Art.Nr.	Article number of the spill valve
Serie	Order- or production number
Betriebsdruck (PS)	nominal pressure of the spill valve [bar]
Steuerdruck	---
Temperatur (TS)	max. temperature range
Größe (DN)	connection size
Prüfdruck (PT)	testing pressure
Fluidgruppe	allowed fluid group
Herstellung	date of manufacturing

5 Spill Valves

5.1 General

Before mounting /disassembly the spill valve we assume that you have read the advices and warnings from chapter 3.



→ safety advice

If you have not read chapter 3. until now, read these important advices now and turn back to this page..

5.2 Corresponding use

Spill valves open automatically when the pressure inside the valve exceeds the adjusted blow-off pressure. When the pressure inside the valve falls short of the blow-off pressure the spill valve closes by spring force.



Spill Valves are no „ equipment part with safety function“ as defined at Art.1 of the European Directive 97/23/EC

It should only be used clean fluids without doubts concerning the material resistance of the spill valve. Pollution or using outside the nominal pressure range and / or the nominal temperature range should causes damages on the spill valve especially on the seat.

5.3 Operating

The adjustment of the blow-off pressure takes place by turning the adjustment screw. Before turning the adjustment screw the counter nut must be detached.



Increase of the blow-off pressure:

Turn the adjustment screw clockwise until the desired blow-off pressure will be reached.



Decrease of the blow-off pressure:

Turn the adjustment screw anti-clockwise until the desired blow-off pressure will be reached.



After the adjustment of the blow off pressure tighten the counter nut again. With the counter nut you can prevent the unintentional distort of the adjustment screw.

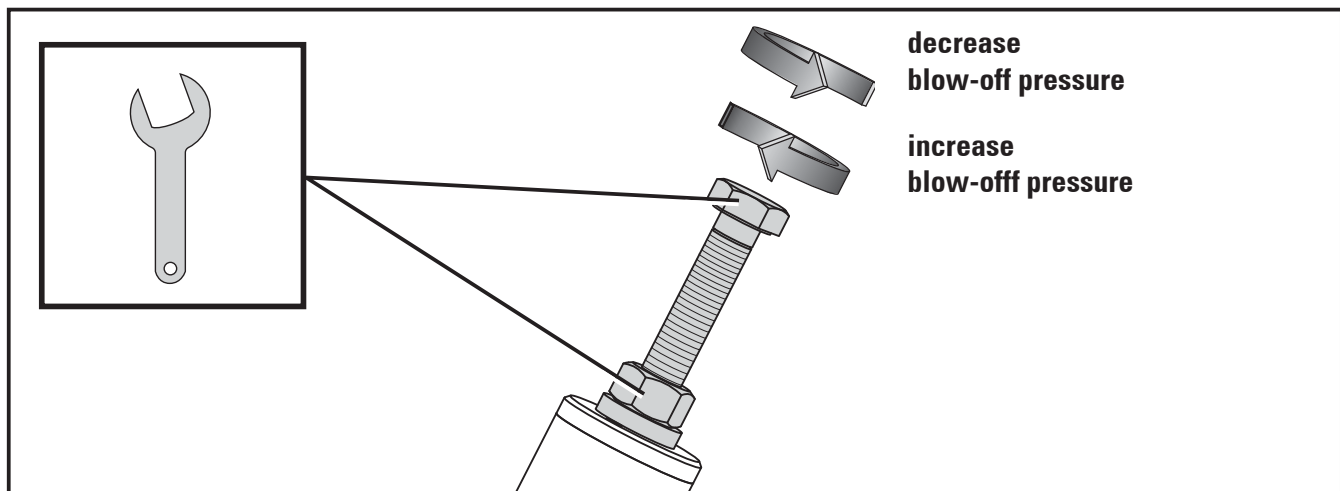


Fig. 5.1 - spill valve, adjustment of the blow-off pressure (Fig.: Art. UV330125)

5.4 Mounting / Disassembly



The mechanical installation are the same at all variants. It differs by the type of connection only.



Consider the flow direction of the medium, specified on the body of the spill valve.



The position of installation will be as you desired, the installation in vertical pipes with standing up spring bonnet is preferred.



Before mounting the spill valve clean up the pipes



Avoid strains on the body by non align pipes.

5.4.1 Mounting with threaded connections



Before lay on sealing compounds, check the hardly screwing of the pipes into the body of the spill valve.



Lay on the correct sealing compounds on the pipes end. By using PTFE-ribbon or hemp sealings consider the screw direction. Don't use sealing compounds which are not prescribed for your employment.



Screw the pipes into the threaded ends of the spill valve. Don't use the bonnet of the spring as a lever.



Strike up the pipes with pressure after that time the manufacturer of the sealing compounds pre-tends for harden it.



Check the tightness of all connections.

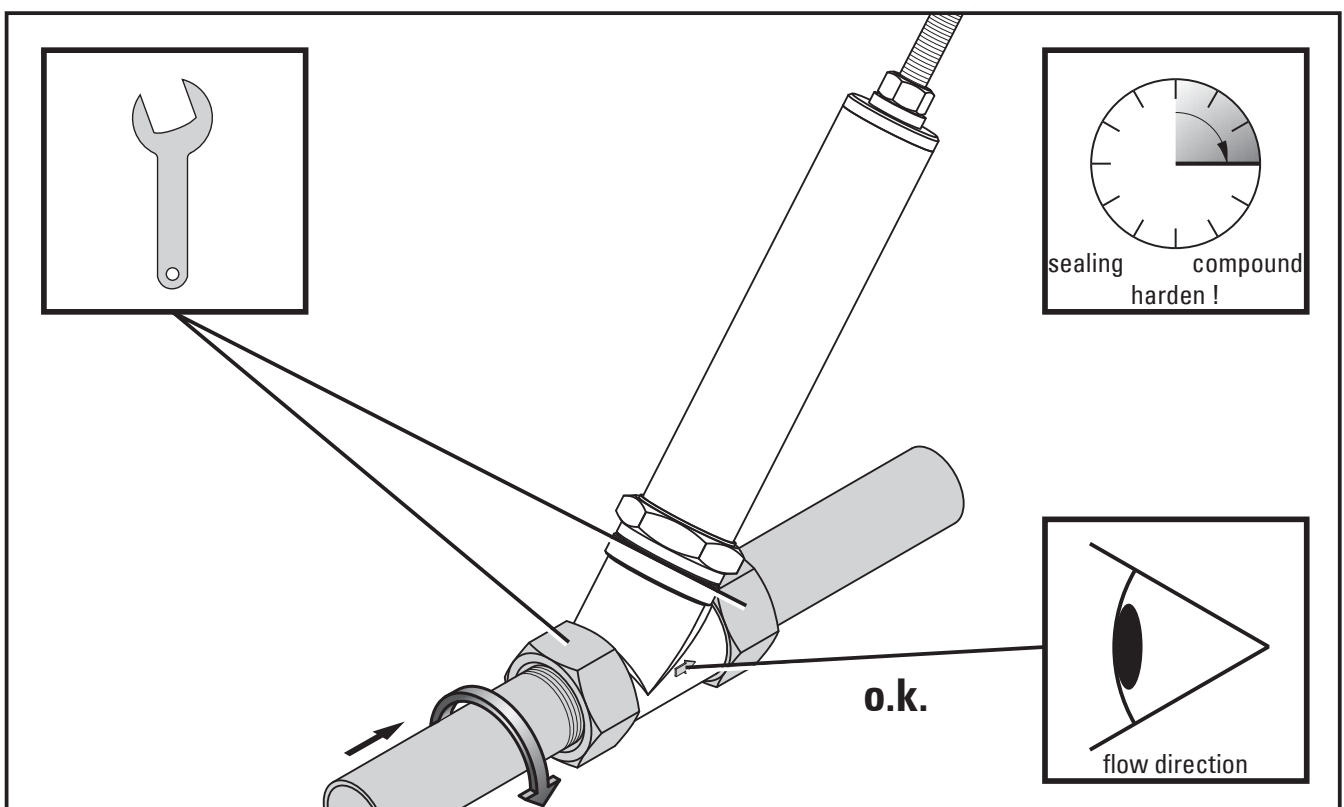


Fig. 5.2 - spill valve, mounting with threaded connection (Fig.: Art. UV330125)

Spill Valves

5.4.2 Mounting with welded connection



By welding the spill valve between two pipes you have to disassemble the spill valve first to prevent the damage of the sealings.

5.4.2.1 Disassembly of the spill valve



Clamp the spill valve between a vice carefully. By using guard plates you can prevent the damage of the ends of the body.



Before disassembling the spill valve you have to release the spring to prevent the fly around of pieces. Heavy injuries of persons or damages of the pieces would be the result,



Turn the adjusting screw anti-clockwise until the spring will be totally released.



Loosen the spring bonnet with a fit spanner. Put on the spanner at the screw joint.



Screw out the spring bonnet out of the body of the spill valve and take it by side carefully. Place marks on the body of the spill valves and the spring bonnet, that you will be able to join the correct parts by a subsequent mounting of the spill valve

5.4.2.2 Welding of the body between two pipes



By welding the body of the spill valves with the pipes observe appropriate demands and guide lines.

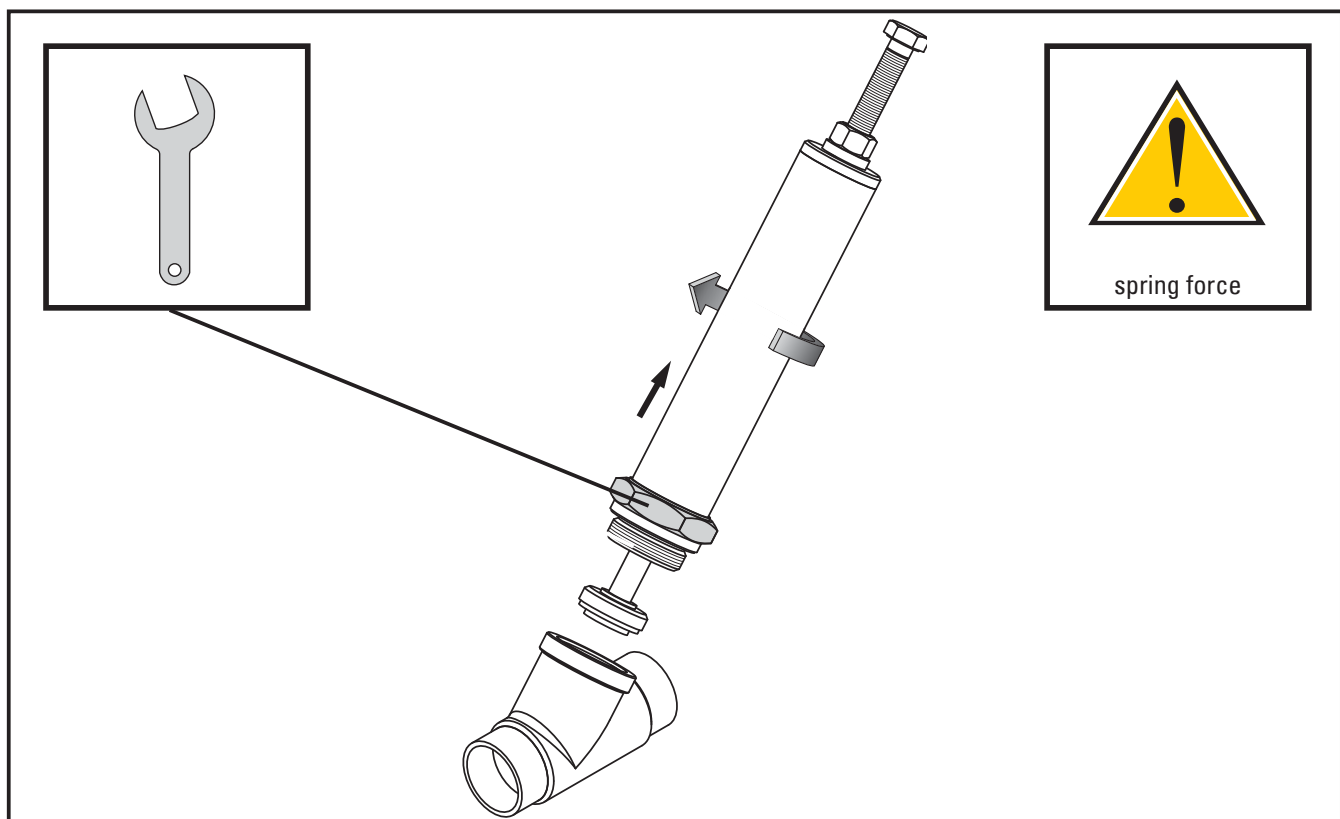


Fig. 5.3 - spill valves, disassembly of the spring bonnet (Fig.: Art. UV330164)



The safety demands by welding are depending on the place and the position of the point of weld. Welding the parts at a serviceable device/machine/plant the potential of danger is as higher as welding the parts in a welding room.

If appropriate, inform the shift foreman / safety engineer or the works manager and the fire brigade of your factory.



By welding observe your own national guide lines about safety and prevention of accidents.

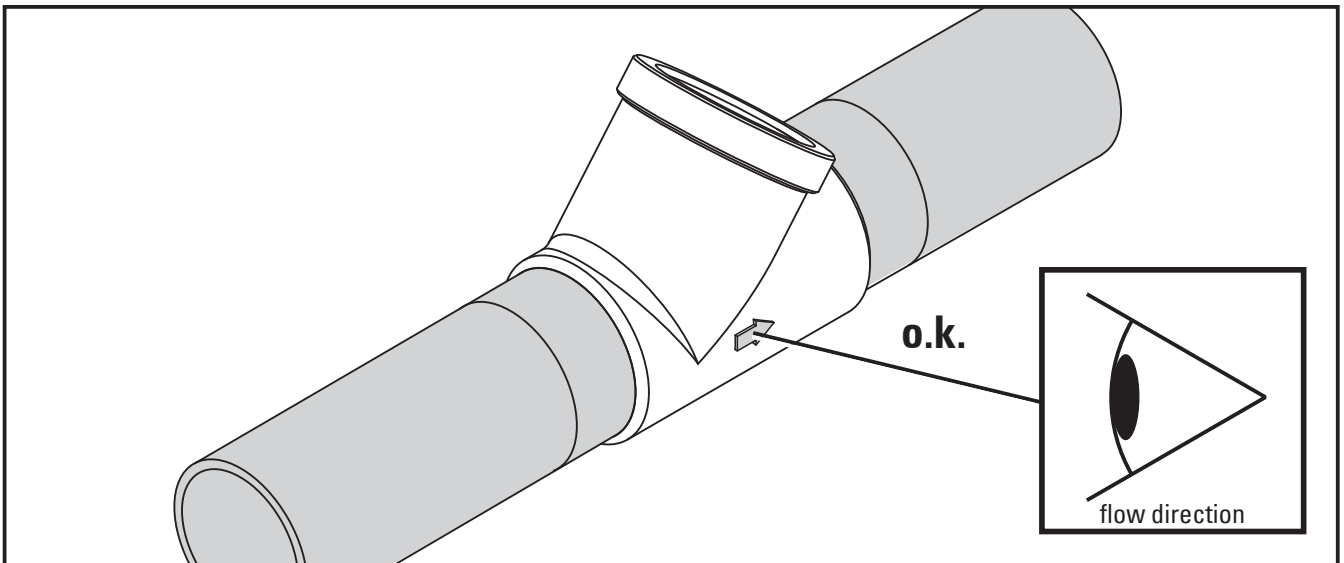


Fig. 5.4 - spill valves, welding of the body between two pipes (Fig.: body of Art. UV330164)

5.4.2.3 Mounting of the spring bonnet



Before mounting the spring bonnet let the body of spill valve cool down.



The mounting of the spill valve takes place just the other way round to the disassembly of the spill valve.



Take care about the correct placement of the sealings and that there will be no pollution on the sealings and the seat.



After mounting check the correct function of the spill valve.



Check the tightness of all connections.

Spill Valves

5.4.3 Mounting with flanged connection



We assume, that you have mounted the flanges at the end of pipes and they are cooled down. (e.g. welded flanges).



Push the body of the spill valve between the flanges by using the appropriate sealings.



Aligns the flange borings and put the fit screws through the holes.



Screw the fit nuts onto the screws and tighten it up crosswise. By doing this consider the maximum torque of the screws.



Check the tightness of all connections.

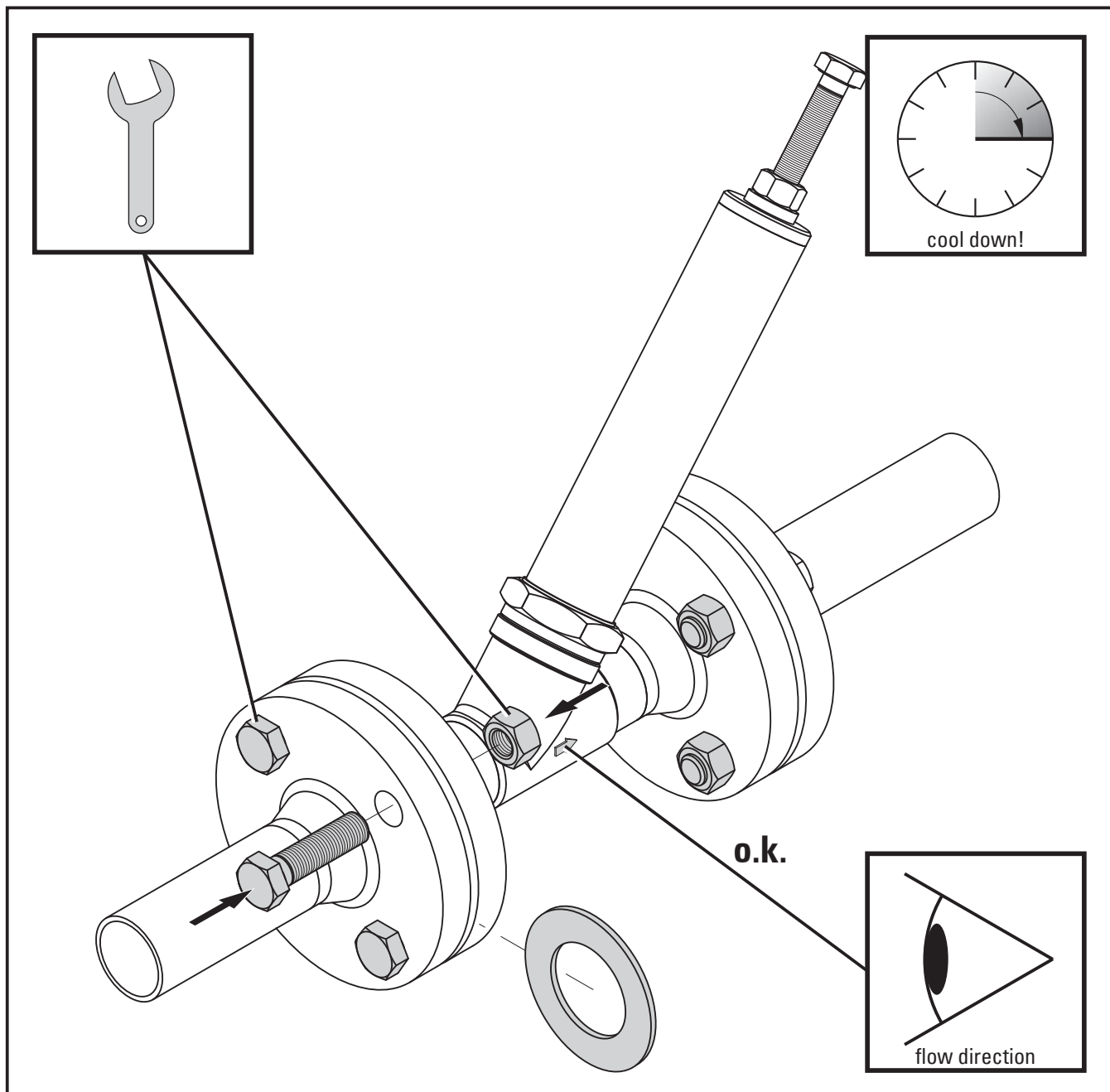


Fig. 5.5 - spill valve, mounting with flanged connection (Fig.: Art. UV330104)

5.5 Maintenance

Before you maintain or shut down the spill valve you have to read



→ **Safety advice**

If you have not read the safety advices until now, read these important advices now and turn back to this page.

On normal accounts the spill valve is maintenance free. In periodical turns you have to:

- Check the right function of the spill valve
- Check the adjusting of the setpressure

In case of a defect of the spill valve make a contact to the supplier. The telephone number will be found on the back or these operation and installation manual.



If you determinate that there is a damage to the spill valve switch off the device/ machine/ plant! However before doing this, it is essential to refer to the

→ **Safety advice.**

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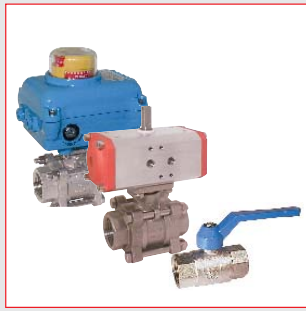
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