

## Operation manual BC-Y-strainer

### General

Before you mount, adjust, start, operate or disassemble a y-strainer you must have read the Safety advice. If you have not read the safety advices until now please read these important advices now and return back to this point.

### Corresponding use

Y-strainer are used to strain pollution out of media. The efficiency depends on the diameter of the mesh. Only media should be used, that the materials of the y-strainer are resistant to. Using outside the nominal pressure range and/or the nominal temperature may cause damaging of the armature, especially the seals.

### Operation

Y-strainer need no special operation. Only the mesh has to be cleaned in periodical terms, respectively the mesh has to be exchanged.

### Mounting / Disassembly

The mechanical mounting is identical in all variants. It differs only by the type of connection. Observe the flow direction which is specified on the valve body. The installation of the screw joint should take place downwards, that the pollution will fall out of the body when cleaning the y-strainer.

We recommend the installation of a gate valve in front and behind the y-strainer, to clean the mesh without discharging of the device. Remove all transport wrappings (e.g. plugs or caps). Make sure, that there are no parts of the package or other pollution left in the armature. Before mounting the y-strainer clean up the pipes. Pollution will reduce the safety and the life-span of the valve. Avoid stress on the body by non align pipes.

### Safety Advice

Depending on the technical circumstances and the specific laws of your country that apply to the armatures and valves being mounted, adjusted and commissioned, you must take into account particular safety aspects!

If, for example, a pneumatic actuator works a slide in an operational chemical plant, the potential hazards of commissioning have another dimension than 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 advices on hazards in the following descriptions which are not relevant to you.

Please observe (only) the advices which apply to your situation!

### Personal safety

#### Safety advices for mounting

We wish to point out expressly that the mounting, adjusting of the device and accessories as well as the pneumatic and electrical installation of the armatures and valves must be carried out by trained specialist personnel having mechanical, pneumatical and electrical knowledge! Ensure, that the machine / plant comply with the Machinery Directive after the mounting and installing of the armatures and valves.

Switch off all the devices / machines / plant affected by mounting or repair.

If possible, 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 armature / valve (in a plant which is in operation) inform the shift forman / 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 repairing, remove the pressure from pneumatic / hydraulic devices / machines / plant. 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)!

### **Safety advice for adjustment / starting**

As a result of the starting (pneumatic, electric or by hand) of the armatures and valves the flow of gases, steam, liquids, etc. may be enabled or interrupted! Ensure that, as a result of the starting or the test adjustment 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 device / machine / plant.! By ending the adjustment check the correct function and should the occasion arise the position of the slide / valve / flap. Check the function of the limit switches (option)! Check, whether the slide / valve / flap will be closed totally, if the control signals the appropriate limit stop!

Through suitable measures, prevent links being trapped by moving actuating elements!

Check the right function of all safety devices (for example emergency push off buttons / safety valves)! Carry out the starting and the adjustments only in accordance with the instructions discribed in this documentation!

Adjusting switch on armatures and valves with options (e.g. actuators, solenoid valves, limit switches) there is the risk that live parts (230 V AC~) can be touched! Therefore the adjustments must be carried out only by the electrician or a person having adequate training, who is aware of the potential hazard!

### **Safety advice for maintaining / repairing**

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

Before disassembling or a armature or valve some essential points should be clarified!

- Will the armature/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!

Observe that some valves / armatures are able to enclose the pressured medium e.g. the ball in the ball valve. You have to relieve the pressure in the pipes in which the armture/valve is

mounted. 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 armature/valve 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 armature/valve make contact to the supplier. The telephone number will be found on the back cover of these mounting and installation manual. Endanschlag signalisiert (Option)!

If you ascertain a damage of the armature/valve, isolate the device from the mains. Please observe the safety advices. Do not mount, start or adjust the armature/valve if itself, the pipes or a mounted actuator will be damaged.

After the maintenance or repair check the right function of the armature/valve and the tightness of the pipe connections. Also check the function of the accessories e.g. actuators, limit switches, etc.

### **Device safety**

The armatures/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, that as a trained specialist you are having mechanical and electrical knowledge! Ensure, that the armatures / valves will only be used within their admissible limiting value (see the technical data) .

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

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

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

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

Never remove a cap or a other component part if the armature / valve will be under pressure.

Do not mount, start or adjust the armature / valve if itself, the pipes or a mounted actuator will be damaged. After the maintenance or repair check the right function of the armature/valve and the tightness of the pipe connections. Also check the function of the accessories e.g. actuators, limit switches, etc.

### Mounting with threaded connection

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

Lay on the correct sealing compounds on the pipes end. By using PTFE- ribbon or hemp sealings

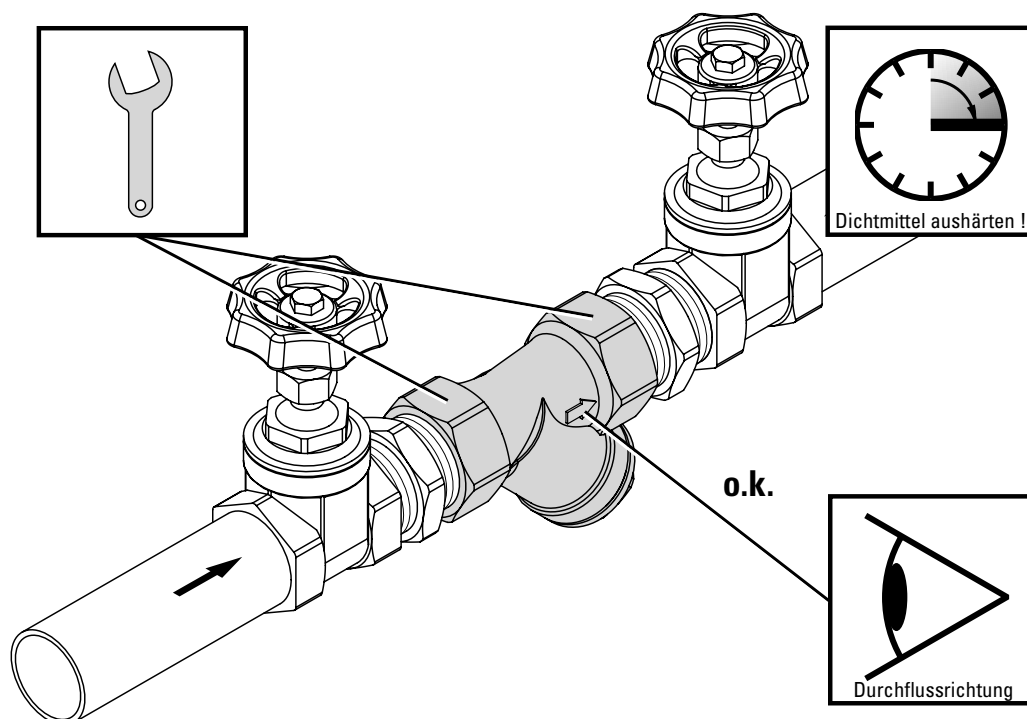
observe the screw direction. Don't use sealing compounds which are not prescribed for your employment.

Screw the pipes into the connection ends of valve.

Strike up the pipes with pressure after that time the manufacturer of the sealing compounds pretends

for harden it.

Check the tightness of all connections.



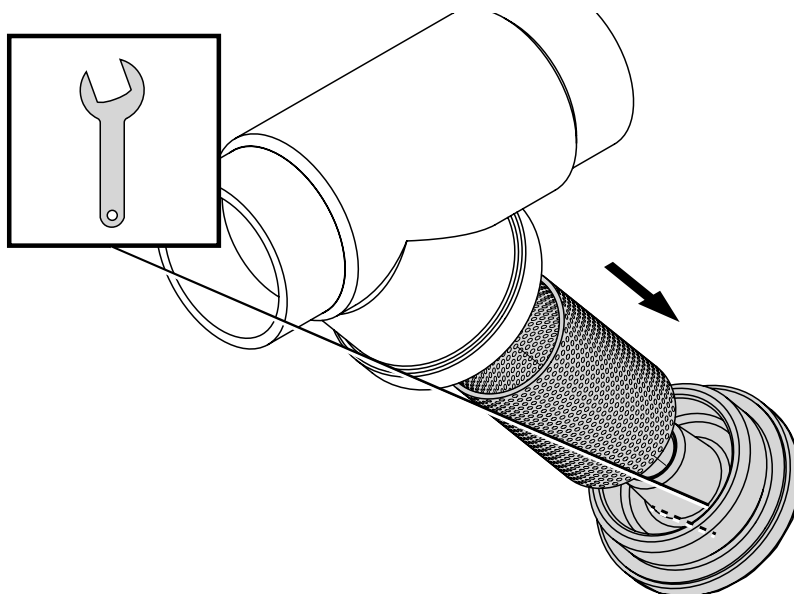
### Mounting with welded connection

Before welding the y-strainer between the pipes you have to disassemble the bonnet of the ystrainer first, to prevent the damage of the sealings.

Clamp the y-strainer between a vice carefully.

By using guard plates you can prevent the damage of the ends of the body. Loosen the bonnet by using a fit spanner.

Screw the bonnet out of the valve body and put it aside.



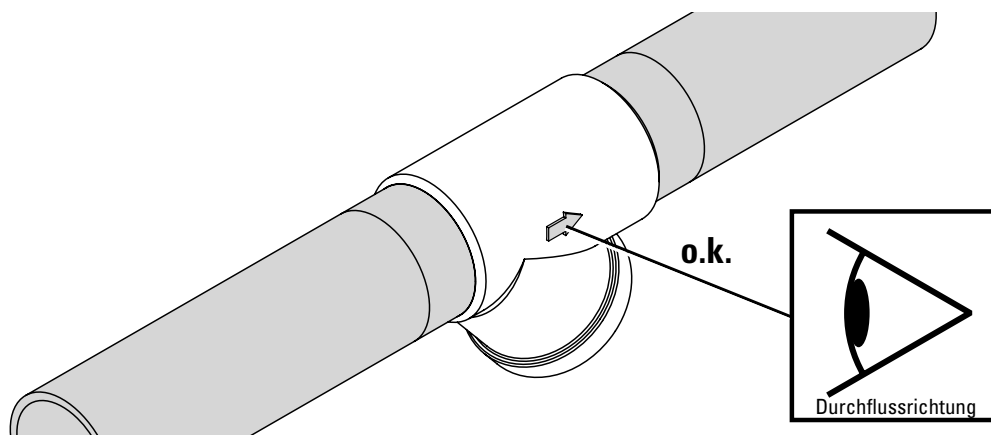
### Welding the body between pipess

By welding the valve body with the pipes observe the appropriate demands and guide lines. The safety demands be welding are depending on the place and the position of the point of weld.

Welding the parts in 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 the prevention of accidents.



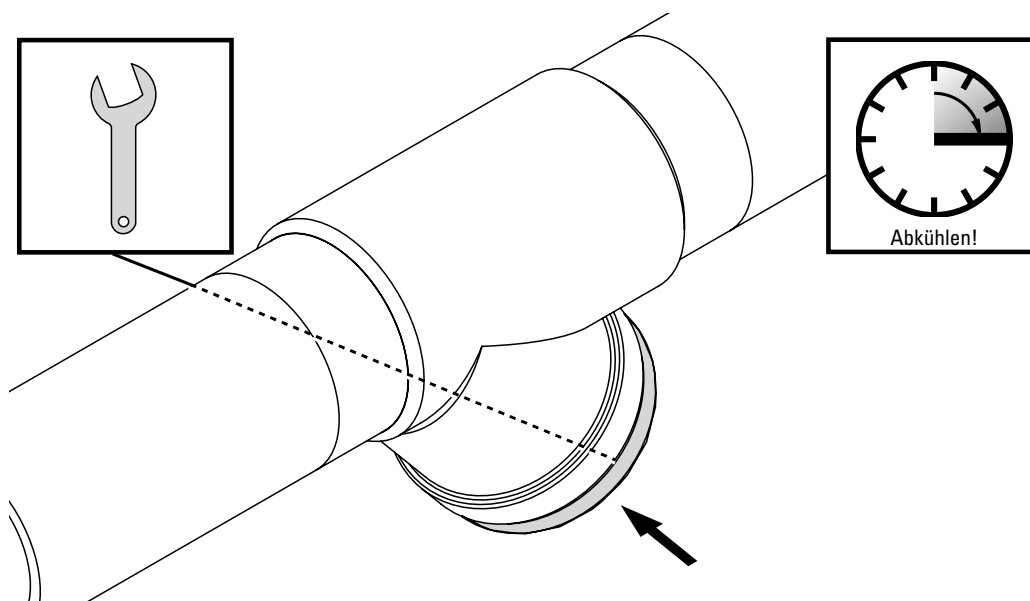
### Mounting of the cap

Before mounting the bonnet let the body cool down.

Screw the bonnet into the body. Observe the correct placement of the seals in the bonnet and take care that there will be no pollution on the seals or the seat.

Tighten the bonnet with a fit spanner.

Check the tightness of all connections.





### Mounting with flanged connection

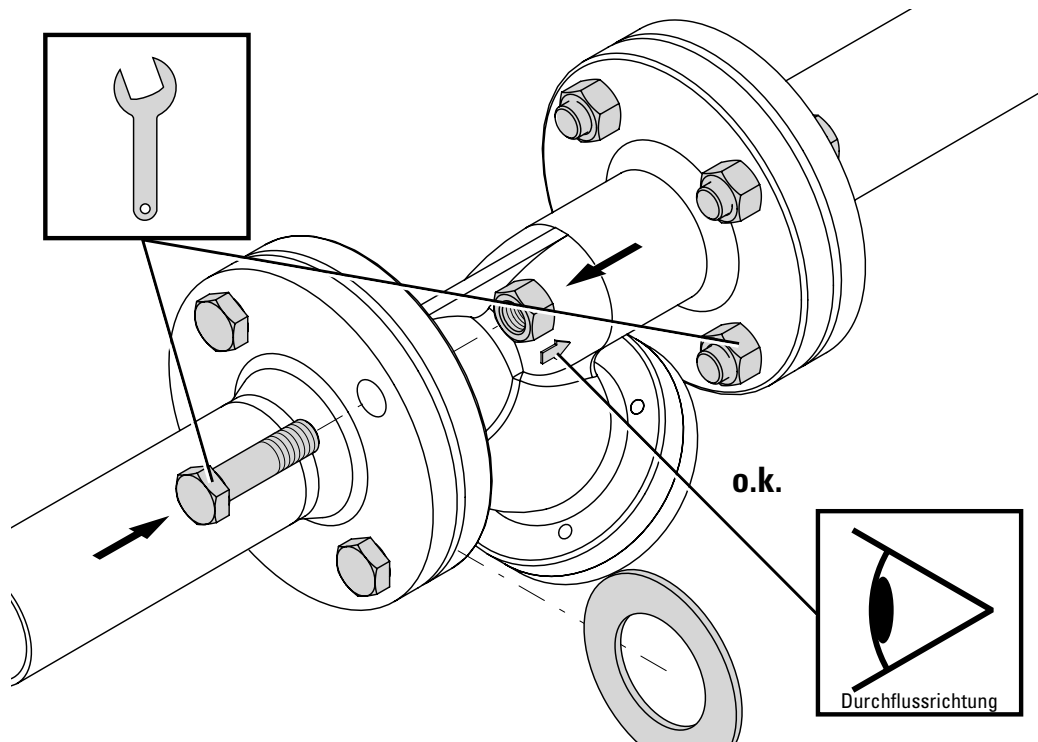
In the following discription we assume that you have mounted the flanges at the end of the pipes and the y-strainer (welded flanges) and they are cooled down.

Push the y-strainer between the flanges by using the appropriate sealings. This process should happen easily to avoid the damage of the sealings.

Align the borings of the flanges and put some fit screws through the holes. Screw the fit nuts onto the screws and tighten them up crosswise.

Fasten all screws crosswise and check the function of the y-strainer. Observe the maximum torque of the screws.

Check the tightness of all connections.



### Maintenance

Depending on the used media and the employment of the y-strainer you have to do the following maintenance operations in appropriate intervals:

- Cleaning of the mesh

In case of a defect of the y-strainer contact the supplier. The telephone number can be found in this operation manual or on the type label of the product.

If you determinate that there is a damage to the y-strainer switch off the device/ machine/ plant! If doing this, it is essential to refer to the Safety advice.

### Cleaning of the mesh

Cut off the media flow and relieve the media pressure.

Keep ready some fit tanks to catch up leaking liquids.

Loosen the bonnet of the y-strainer. Catch up the running out liquid. Take the bonnet aside and pull the mesh out of the body.

Clean the body and the mesh or exchange the mesh for a new one.  
Insert the mesh into the body of the y-strainer.

Screw the bonnet into the body. Observe the correct placement of the seals in the bonnet and take care that there will be no pollution on the seals or the seat.

Tighten the bonnet with a fitting spanner.

Check the tightness of all connections.

