

Instructions for maintenance and repair

for pressure-reducing-valve type 70 BG 00 and series type 70 SKM



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Maintenance:

NI pressure reduction valves shall be provided in design and manufacture in such a way that optimal quality and service-friendliness is attained. Minimum care and maintenance is the result when using our fittings.

We recommend to have the pressure reduction valves / spare parts replaced only in an authorized technical workshop. In the absence of adequate means of repair, it is advisable to send the complete valve on the **Niezugodka GmbH** by post. All spare parts supplied by us are suitable for installation in our valves without exception. Since the valves supplied are however adapted to the respective case of application, it is necessary to also state our **valve number** and the delivery slip / invoice number or order number of processing while placing order for spare parts.

Test intervals:

Depending on the properties of the medium and the operational circumstances in the facility, maintenance shall be performed or function of valve verified once each year or also at shorter intervals.

Leakages:

Faults are often caused by soiling, which result in damages or softening of seals:

Leakages on the piston plate sealing (o-ring 350) are indicated by medium escaping through the spring hood opening. To repair, the respective o-ring (350) shall be renewed. A strong increase in back pressure at low removal rate is an indication of a defective soft sealing (062).

Caution!



In case of oxygen, keep all parts free of oil and grease. For operation in oxygen-charged atmosphere (-25°C/+250°C), only approved lubricants, e.g. „, **gleitmo 594** “ shall be used for the lubrication of the o-rings, media-contacting guide areas and thread connections.

Adjustment of initial response pressure with „ no “ changing of springs

Attention!



- Observe spring setting range.
- Dismantle valve head - see (Group **A**).
- Release lock nut (086); by turning the pressure screw (085) increasing or reducing response pressure.
- Secure spring setting using the lock nut (086).
- Assemble valve head - see (Group **A**) in reverse sequence.

Adjustment of the initial response pressure, „ including “ changing of springs

Attention!



- Observe spring setting range.
- Dismantle valve head - see (Group **A**).
- Release lock nut (086); fully relieve the spring (081) by turning the adjusting screw (085).
- Screw off spring bonnet (030); remove upper spring plate (082) and spring (081).
- Other spring (081) to use
- Replace damaged parts.
- Reassemble in reverse sequence.
- Secure spring setting using the lock nut (086).
- Assemble valve head - see (Group **A**) in reverse sequence.



For further information, see our website

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Attention!



Care must be taken to ensure that the system is depressurised prior to assembly, dismantling or opening of the pressure reducing valve. The remaining dimensions and seal properties, preloading forces, tightening torques etc. are to be determined by the user themselves in accordance with the operating instructions. In doing so special attention must be paid to the following:

Medium residues in the pressure reducing valve or in the spring cap represent a serious chemical burning, burns and poisoning hazard. It must, therefore, be established prior to removing a valve from the plant which medium could be present in the pressure reducing valve. Appropriate safety measures must be taken.

Proceed as follows to dismantle:

- 1) Piping and pressure reducing valve must be depressurised.
- 2) Remove the valve from the piping to facilitate servicing and repair work.

Group A:

Adjusting screw: loosen lock nut (086); fully relieve the spring (081) by turning the pressure adjusting screw (085).

Group B:

Adjusting screw: screw off spring bonnet (030); remove upper spring plate (082) and spring (081).

Group C:

Remove bottom plug (357) with packing ring (356).

Check whether movable components (piston (300) with piston plate (310) on the upper end and disc components (060)) on the bottom end are running smoothly by pressing against them alternatively.

If they do not run smoothly or if you discover leaks on the seat or piston plate (310), continue with uninstalling:

Group D:

- Hold the components installed at the lock nut (314) and loosen disc bolt (065).
- Remove the disc components (pressure piece (061), disc (560) with o-ring (071)).
- Pull out components (piston (300) with piston plate (310)) from the valve-body (301).
- Remove the o-ring (351).

If required, piston plate (310), piston (300) can be uninstalled as follows:

- Place piston plate (310) axially into bench vice (Warning: use soft splits!) and loosen lock nut (314).
- Remove piston (300) with o-ring (352) from piston plate (310).

Proceed as follows to reassemble:

After uninstalling and cleaning, you may have to remove pressure points in the surface of the valve-body and of the piston by grinding it with very fine emery paper. If the piston surface looks as if has been eaten into, the piston must always be replaced because the o-ring (351) will no longer be able to seal the destroyed surface.

All soft seals (disc soft sealing (062), o-ring) must be replaced (included in maintenance kit). To install, perform the opposite of the uninstall procedure (last step first, etc.). To lubricate the o-rings and the media-contact surfaces as well as the winding connections (pressure screw, bottom plug, cap) we recommend the food-use lubricant „ **gleitmo 591** “ (-25°C/+250°C).

The disc bolt (065) must be secured with a suitable screw lock (LOCTITE)! Prior to installing the disc bolt (065) you will have to check whether the winding connection is smooth, and if not, make sure it is (remove all residue from the screw lock).

When tightening the disc nut (065) you must comply with the following **fastening torque:** Winding M8: 1,0 Nm

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