

Vordruckregler, federbelastet Initial-Pressure-Controller, springloaded

Typ / type 80 - Baureihe/Series SKK und SKS, Typ / type 80 und 81
Kolbenausführung / piston design



INSTRUCTIONS FOR MAINTENANCE AND REPAIR

For repair or maintenance, proceed as follows: Depending upon the properties of the medium and of the operating conditions, maintenance should be carried out annually, if not at shorter intervals, or the functioning of the valve should be checked.

The cause of faults is usually to be found in the build-up of dirt or in the following damage to the soft seals: Leaking at the control piston seal (o-ring 350) is indicated by the seepage of medium at the spring cap opening or at the leak coupling sleeve (when connected to a pipe). For removal the appropriate o-ring (350) is to be renewed. A medium stream and/or a rising pressure in the downstream line with closed valve refers to a defective disc (062) and/or a defective o-ring (351).

For repair or maintenance, proceed as follows:

- 1) Remove pressure from the pressure controller or pipe.
- 2) To facilitate the repair or maintenance work, remove the pressure controller from the pipework.
- 3) Unscrew the cap (120) (on pressure controller valve models with gas-tight cap), release the locknut (086), completely release the spring (081) by turning the toggle spindle or the adjusting screw (085, with option of AC and EA without adjusting screw) counter clockwise, remove the o-ring (130, on EA models).
- 4) Unscrew the spring bonnet (030) using a hooked, fixed or adjustable wrench, and remove it. If present, take out the o-ring (330).
- 5) Remove the spring (081) and the upper springplate (082).
- 6) Remove the bottom cap (357) and the sealing ring (356). Check that the valve parts [inlet pressure piston (304) and piston plate (310), distance bush (311), lower springplate (084) and lock nut (314) on the upper side, and piston (300) with lift stopper (079) and screw (347) downside] move freely.

If they are stiff or if the seat or the piston are seen to leak, disassembly should be continued:

- 7) Holding the control parts with an adjustable wrench applied to the lock nut (314) and unscrew the disc bolt (065) on the disc. Before further disassembly of the mounting parts, first the LOCTITE screw locking between the threaded stem of the piston (300) and the inlet pressure piston (304) is to break loose. In addition holding the mounting parts with a wrench applied to the screw (347) of the piston (300) and tighten the lock nut (314) at the lower spring plate (084) (turning clockwise). By the giving way disc (062) the LOCTITE screw locking breaks loose.
- 8) Hold the mounting parts at the screw (347) and loose and remove the inlet pressure piston (304) with the piston plate (310), the distance bush (311), the lower spring plate (084) from the piston (300) by turning the lock nut (314) anti clockwise.
- 9) Dismount the disc parts [disc thrust piece (061) with o-ring (071), disc (060), connection plate (072) and disc (062)] and pull out the piston (300) with stroke limiter (079) and screw (347) from the initial pressure controller (301, 302). If the discsealing is Nylon or PTFE also remove o-ring (073).
- 10) Remove the piston o-ring (351) from the initial pressure controller (301, 302).

If necessary, the inlet pressure piston (304), the piston plate (310), the distance bush (311) and the lower spring plate (084) can be dismantled as follows:

- 11) Clamp the piston plate (310) axially in a vice, (important: use soft jaw pads!) and unscrew the lock nut (314).
- 12) Remove the lower springplate (084) and the distance bush (311).
- 13) Remove the inlet pressure piston (304) with o-ring (352) from the piston plate (310). Dismantle the o-ring (352) and the o-ring (350).

After disassembly, any high spots on the components have to be taken down with fine emery cloth.

All the soft seals (disc sealing (062) and the o-rings) have to be replaced (included in set of spare parts). Reassemble the unit by following the above instructions in reverse order. We recommend that "**gleitmo 591**" (-25°C/+250°C), also for foodstuff approved grease, can be used for lubricating the o-ring seals and guide surfaces in contact with the medium, and also for threads (adjusting screw, bottom plug and cap). The connection piston (300) and inlet pressure piston (304) is to be secured by the application of "Loctite". Before installing, check if the thread is complete clean and free of residual- "Loctite". The thread-connection piston (300) / inlet pressure piston (304) must be soft running.

The tightening torques for the disc bolt (065) are the following:

thread dimension M8: 1,5 Nm;

thread dimension M10: 3 Nm;

thread dimension M14 x 1,5: 5 Nm.

Warning ! Keep all parts free of oil or grease when using with oxygen !

For the lubrication of the O-ring seals, the guide surfaces in contact with the medium, and the screw connections, only use lubricant especially approved for use in oxygen atmospheres, e.g. "**gleitmo 594**" (-25°C/+250°C).

SPARE PARTS

When ordering spare parts, state the code number (marked on the type label). If the code number is not available, the delivery note number and date, the factory number of the valve (stamped on the valve body), the series, type and the item numbers of the component as given in our spare parts list, must all be communicated. In addition, we request that the material of the soft sealing (062) and of the o-rings (EPDM, FPM) also will be stated.