SGP5: Replacement of Spare Parts

Valves in the Sample Gas Pump SGP5
Rev. 1.0 - 22. Apr. 2010

The below description of the replacement of spare parts in the sample gas pump SGP5 requires trained personnel. It becomes necessary if the pump is contaminated by the sample gas and needs cleaning.

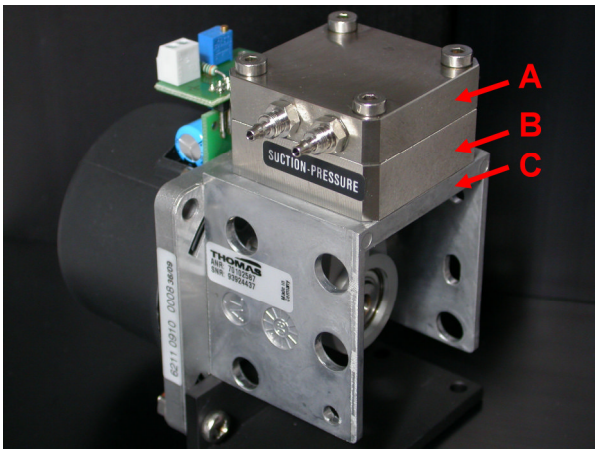

Fig. 1: SGP5-DC

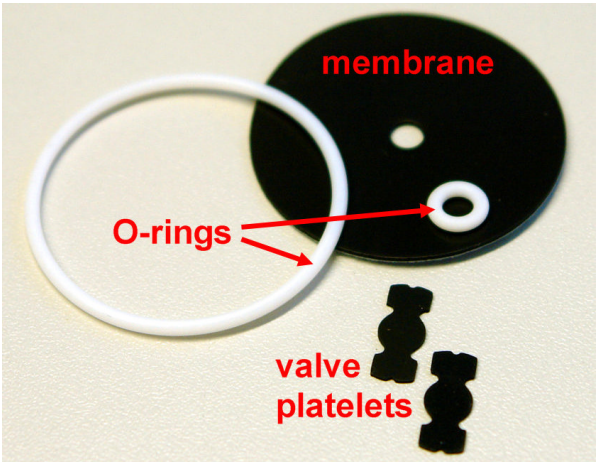

Fig. 2: SGP5-SPARE

Disassembling:

- disconnect the tubing from the pump by unscrewing the knurled nuts on the fittings
- loosen the four screws holding parts "A", "B" and "C" (Fig. 1) together
- carefully lift the valve platelet from the slit "2" (Fig. 3), using a pair of tweezers
- turn part "B" upside down and remove the second valve platelet

Cleaning:

- clean the valve platelets "1" (Fig. 3) using water and/or isopropyl alcohol
- clean the valve seats "3" (Fig. 3) using a Q-tip or similar
- clean the O-rings "4" and the surface on the opposite (part "A") with a Q-tip
- clean the membrane (Fig. 2), if necessary
- should any of the above parts be damaged or impossible to clean, replace them (**order code**: SGP5-SPARE)

Reassembling:

- before assembly of the pump make sure that all parts are **free of dust and dirt**
- insert one side of a valve platelet "1" into the slit "2" using a flat pair of tweezers
- insert the other end into the slit on the opposite side
- makre sure the valve platelet is moving freely
- turn part "B" upside down and insert the second valve platelet as described above
- position the membrane **exactly in the center** of the orifice
- place part "B" over the membrane, well centered.
  Orientation of parts "A" and "B":
  - the cavity in part "B" must absorb the membrane,
  - the fittings must point into the same direction as in Fig. 3,
  - the two holes found in part "A" must be placed over the holes "3" and the small O-ring in part "B"

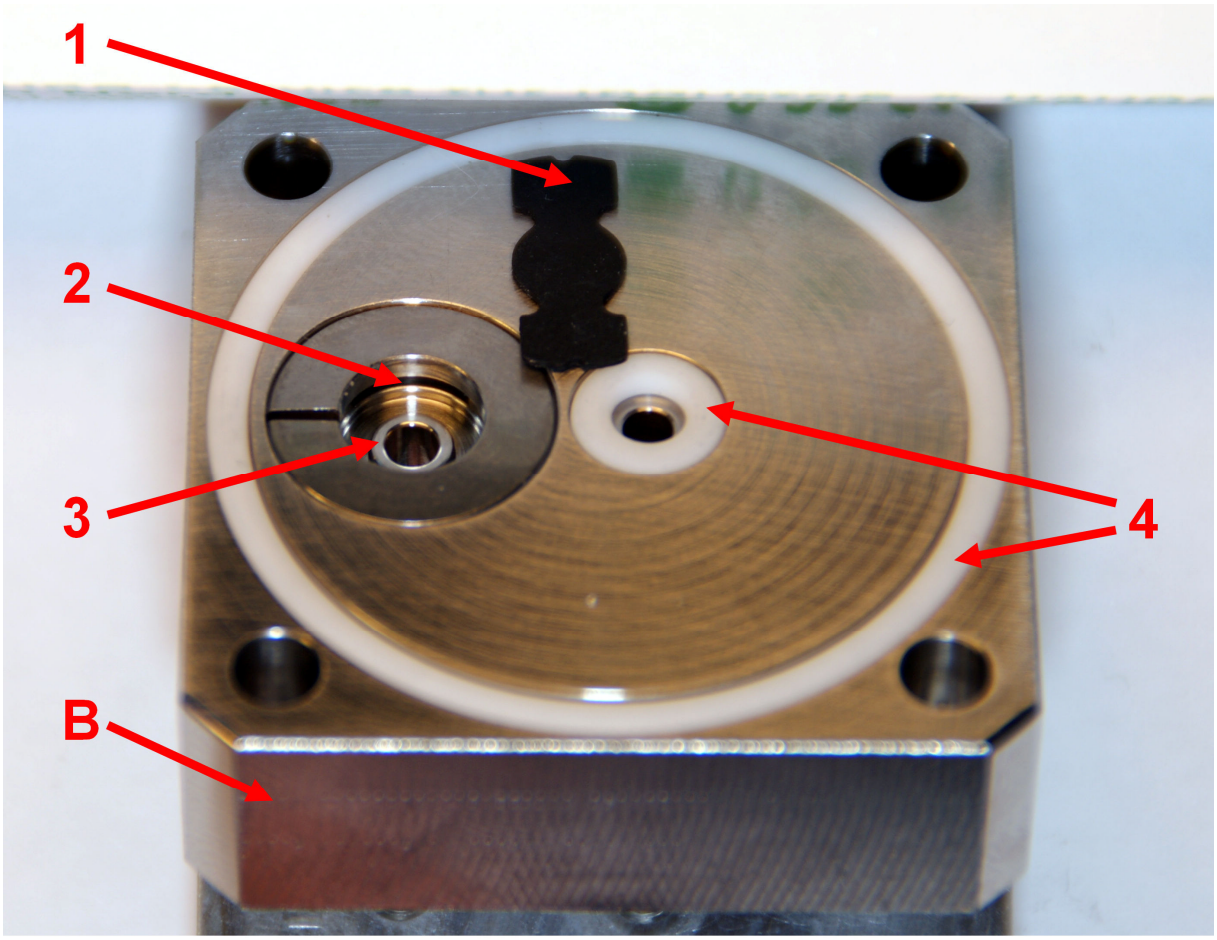

Fig. 3: SGP5 part "B"

- place part "A" on top of part "B"
- before inserting the four screws again, make sure the **membrane is still centered**
- tighten the four screws alternatively
- make sure the fittings and the inner side of the tubings are **free of dust and dirt**
- the tubing going to the outlet of the analyser connects to the fitting marked "pressure"
- if it is necessary to disconnect and connect the tubing for a second time, cut one or two millimeters off the end of the tubing before reconnecting
- tighten the nuts
- a **leakage test** must be made before applying ozone to the analyzer (watch the max. allowed pressure)

This cleaning or replacement does not involve any recalibration.

If any problems occur, do not hesitate to contact us:

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