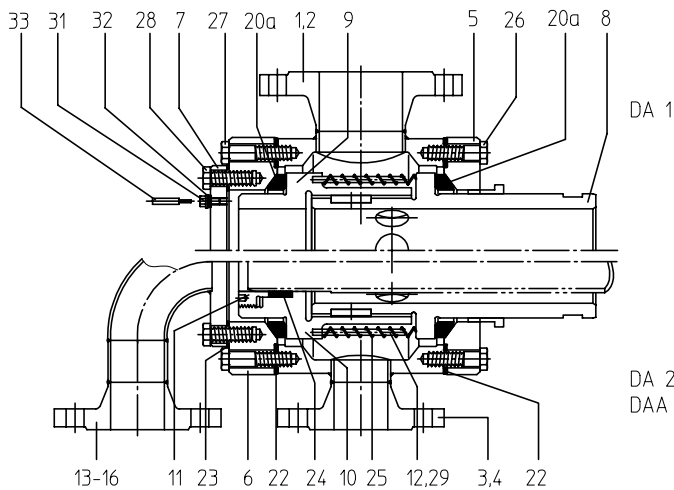


# Maintenance Instructions

## Series DA

IDA\_E.DOC Rel. 15.09.99



- |                       |                     |
|-----------------------|---------------------|
| 1 Housing 1 PN 16     | 15 Elbow A2 PN 16   |
| 2 Housing 1 PN 40     | 16 Elbow A2 PN 40   |
| 3 Housing 2, A2 PN 16 | * 20 a Sealing ring |
| 4 Housing 2, A2 PN 40 | * 22 Flat packing 1 |
| * 5 Cover             | * 23 Flat packing 2 |
| * 6 Flange cover      | * 24 Packing        |
| 7 Cover 1             | 25 Pressure spring  |
| * 8 Rotor K           | 26 Screw 1          |
| * 9 Ring 1, 2         | 27 Screw 2          |
| * 10 Ring A2          | 28 Screw 3          |
| 11 Adjustment ring    | 29 Locking washer   |
| 12 Bolt               | 31 Screw plug       |
| 13 Elbow 2 PN 16      | * 32 Sealing ring   |
| 14 Elbow 2 PN 40      | 33 Gauge            |

\* = wearing part

DN 50 and DN 65 flange cover integrated in housing items 1 to 4.

### Repair

Repair is required during preventive maintenance or when leaks are detected between cover 5 and rotor 8.

### Dismantling the unit

- Unscrew screws 28 and remove cover 7 and elbows 13-16.
- Dismantle flange cover 6. To do so, unscrew screws 27. **ATTENTION: The internal parts are under spring tension.** To slowly reduce the tension, use two threaded rods with nuts. All internal parts can be removed from housing 1-4.
- Unscrew screws 26 and detach cover 5.
- Pull rotor 8 out of housing 1-4.
- Remove flat packings 22, 23.
- Version DAA: remove packing 24 from ring 10.

### Evaluating the parts

- The quality of the sealing surfaces at sealing ring 20a, rotor 8, cover 5, flange cover 6 and rings 9-10 is of particular importance. These parts are precision-turned. Therefore, always replace sealing ring 20a. Reuse the other parts only if turning is still possible. Size DN 65 and greater: maximum turning at rotor 8 is 1 mm. **ATTENTION!** If you detect scoring on the sealing surface of rotor 8, cover 5, flange cover 6 and rings 9, 10, it is not sufficient to replace sealing rings 20a!
- Lap sealing rings 20a (rotor 8, cover 5, flange cover 6, ring 9, 10 (fig. 2)), 2 mm wide. Use lapping paste (S). Then clean the parts with agent which does not leave any residue.
- Replace flat packings 22, 23 and packing 24 (version DAA only).

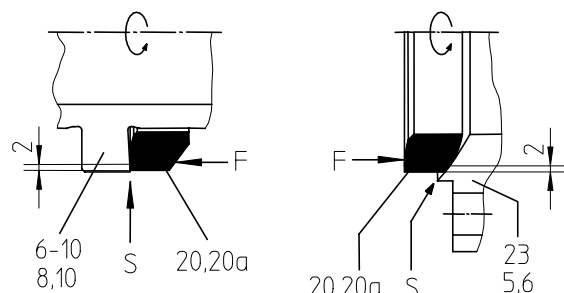
### Reassembling the unit

It is recommended to reverse the order of the disassembly steps when reassembling the unit:

- Screw flange cover 6 with flat packing 22 to housing 1-4 and

place onto flange cover.

- Insert sealing ring 20a.
- Screw bolt 12 with locking washers 29 for springs 25 into rings 9, 10.
- Insert ring and place it onto sealing ring 20a.
- Slide springs 25 over bolts 12.
- Insert rotor 8 into housing 1-4. Make sure that the position of the feather groove in rings 9, 10 is correct.
- Insert sealing ring 20a.
- Place cover 5 with flat packings into position, preassemble it by means of two threaded rods with nuts and then tighten it by means of nuts 26.
- Function check. apply axial load on the rotor to compress springs. If axial displacement is possible, the unit has been properly reassembled.
- Version DAA: insert packing 24 and adjustment ring 11 into ring 10.
- Assemble flat packing 23 and cover 7 or elbow 13-16 with screws 28.
- **Spare parts**
- It is recommended to stock the wearing parts mentioned above. Always specify the part number and the complete type designation of the rotary joint as per type designation plate when ordering spare parts.



## Mounting to roller neck

### General information

- Series DA rotary joints feature four lugs for holding bolts (H) at housing 1-4 designed in such a way as to support the unit and prevent rotation. The bolts must be fixated (for example, by means of a suitable console) in such a way that housing and rotor 8 as well as housing and adjustment ring 11 and rings 9, 10 are aligned so that they are centered. Otherwise, vibrations will decrease the service life of sealing rings 20a.
- Abrasion at the sealing ring and heat expansion of the roller and the rotary joint cause a **displacement of the housing (V)**! This displacement must not be prevented by rigid connections (A) at the housing or a tilted position or insufficient clearance (S) at the holding bolts (H). Otherwise, leaks or increased sealing ring wear will result. Refer to the catalog, section DA, for required clearance (S).

### Mounting procedure

- Remove cover 7 or elbow 13-16.
- Version DA2: screw inner pipe into ring 9. Version DAA: mount inner pipe in roller.
- Mount rotor seal in roller and K flange on rotor.
- Mount rotary joint by means of holding bolts into prepared console. Do not yet remove the two pieces (D)!
- Move the rotary joint along the holding bolts toward the roller and insert the rotor centering device into the roller.
- Version DAA: the inner pipe is pushed into packing 24 during this process. Avoid tension!
- Mount rotor 8 with K flange and inner ring to roller by carefully and evenly tightening the screws.
- Readjust the console in such a way that the misalignment between rotor 8 and the ring to housing 1-4 (as described above) amounts to a maximum of 1 mm.
- Version DAA: tighten adjustment ring 11 very carefully.
- Mount cover 7 or elbow 13-14.

Please refer to our GENERAL MAINTENANCE INSTRUCTIONS "IA" for further details.

- We reserve the right to technical modifications -

