

DIAPHRAGM

Installation guide

1. Position of actuator: valve open / „upper actuator position“



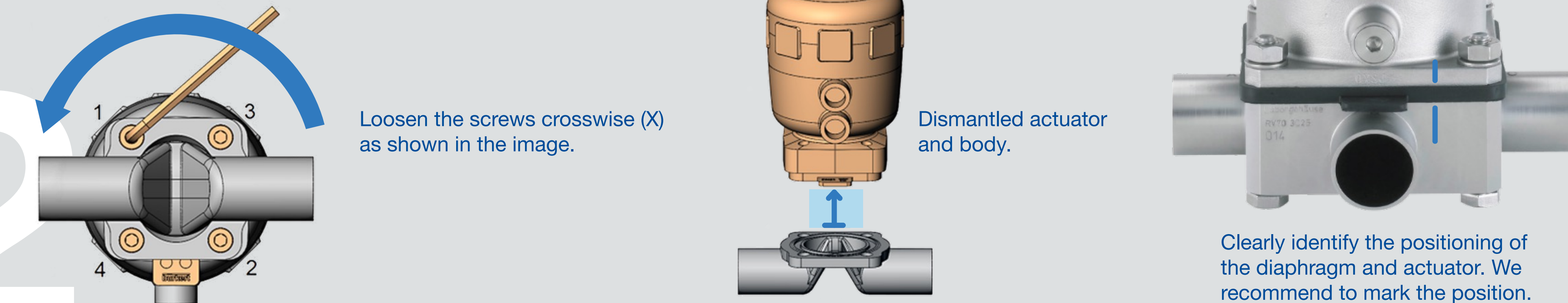
To disassemble actuator please put actuator in Open position. For electromotive valve ensure the indicator is in the highlighted position.

6. Align diaphragm. Identifying tab perpendicular to flow direction.

Fix the actuator and body in the highlighted position (as shown in the image) for clear assembly.



2. Untighten screws crosswise and remove actuator with diaphragm from body.



Loosen the screws crosswise (X) as shown in the image.

Dismantled actuator and body.

Clearly identify the positioning of the diaphragm and actuator. We recommend to mark the position.

7. Position of actuator: valve open / „upper actuator position“



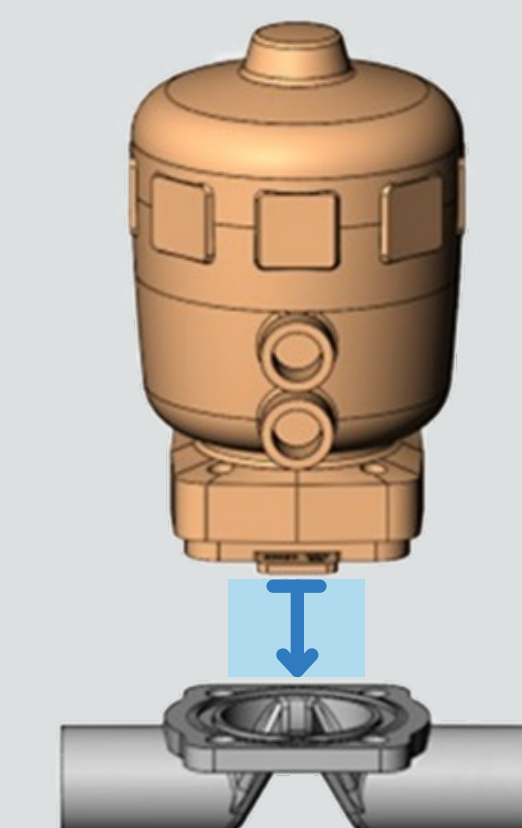
To assemble the actuator put actuator in open position. For electromotive valve ensure the indicator is in the highlighted position.

3. Position of actuator: valve closed / „lower actuator position“

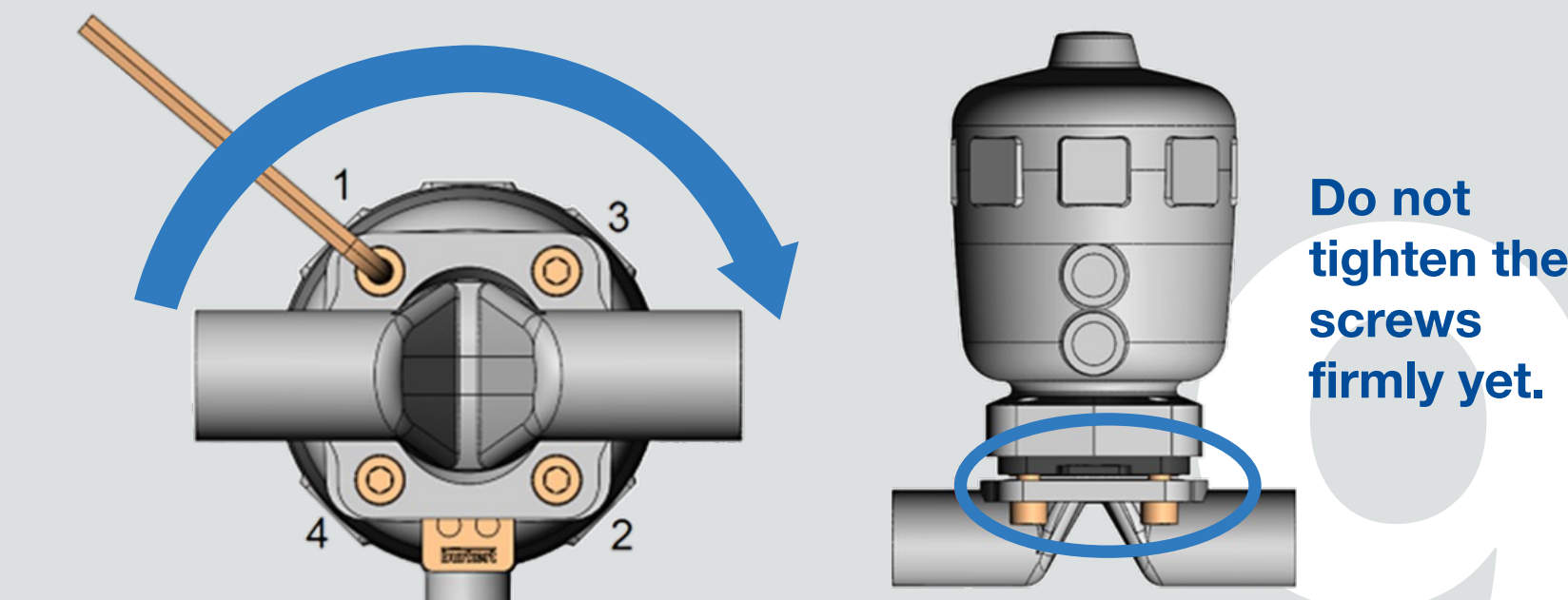


Exhaust air from the bottom port for pneumatic actuators. For electromotive valve ensure the indicator is in the highlighted position.

8. Put actuator on body

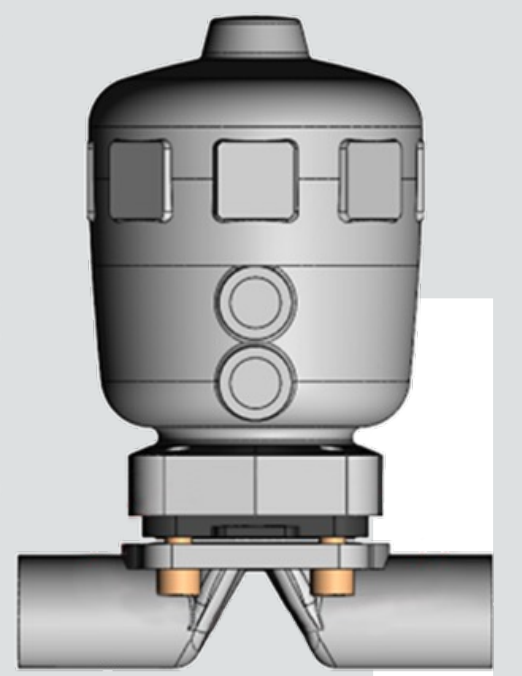


9. Slightly tighten the screws crosswise



Slightly tighten until the diaphragm is aligned with the actuator and body.

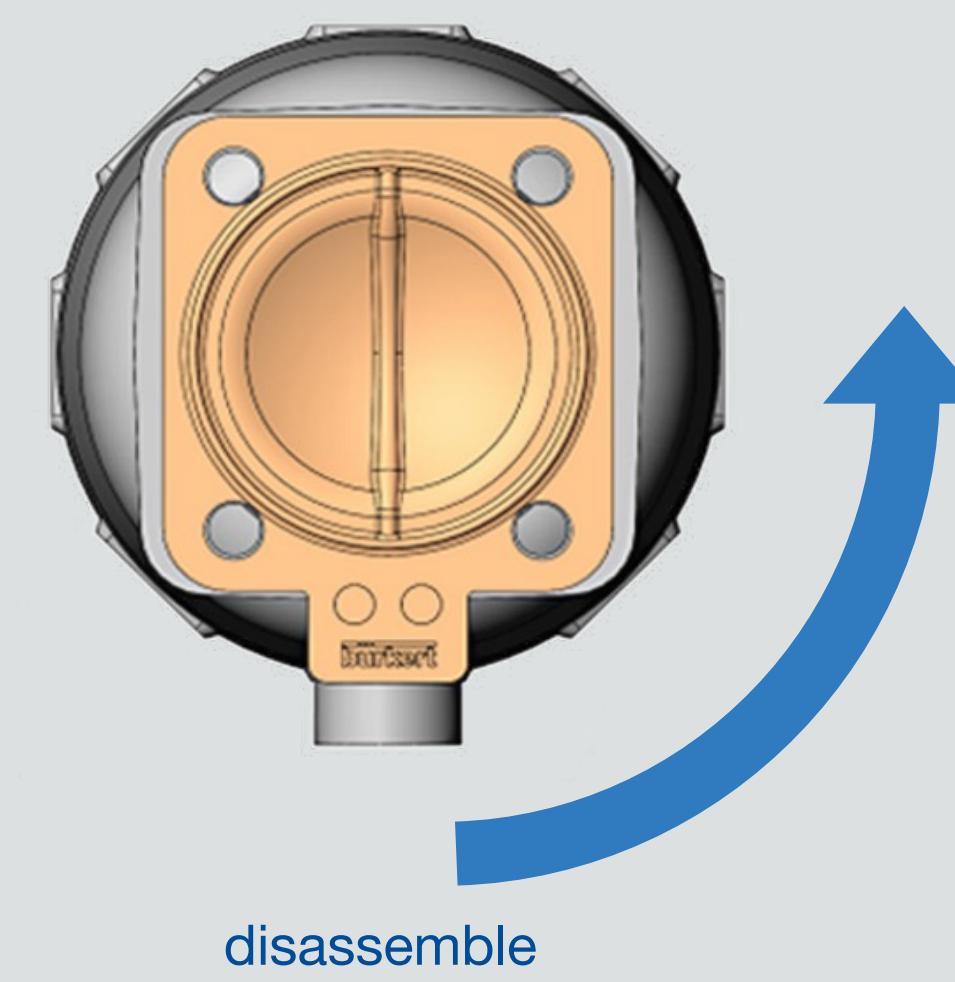
10. Actuate diaphragm valve



Actuate the valve minimum two times to ensure that the diaphragm fits in the right way.

4. Remove old diaphragm by unbuttoning or untightening. If connected by bayonet catch, loosen the diaphragm by turning it 90°.

NOTE!
For Robulux please use the manual.



disassemble

11. Position of actuator: valve closed / „lower actuator position“

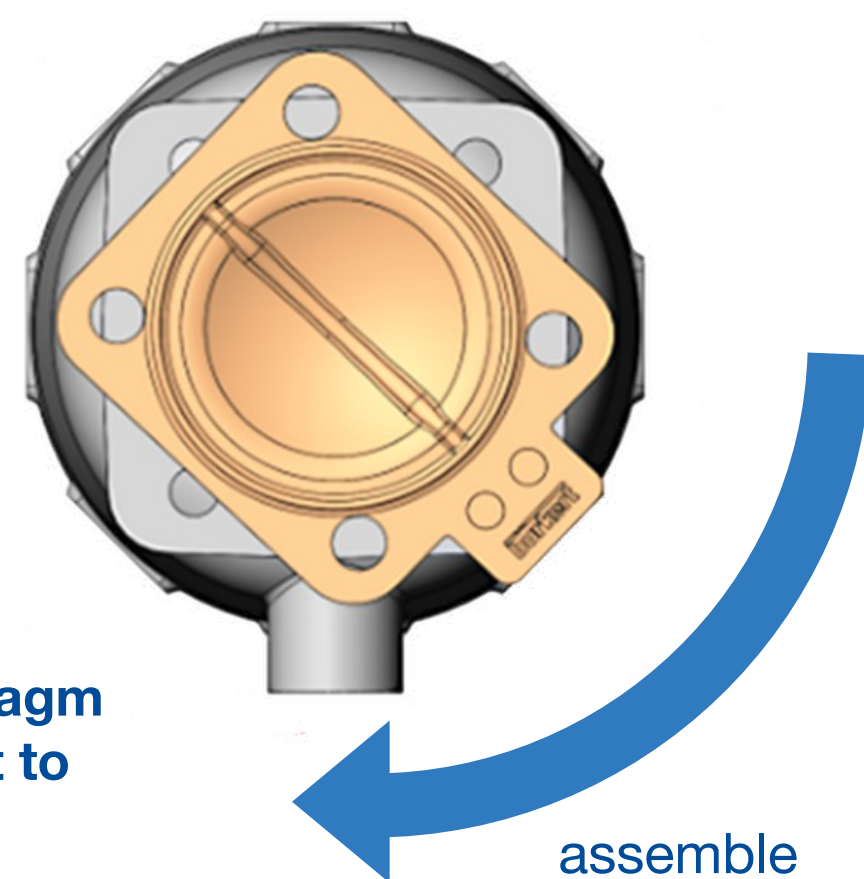


To tighten screws put actuator in closed position. For electromotive valve ensure the indicator is in the highlighted position.

5. Assemble new diaphragm

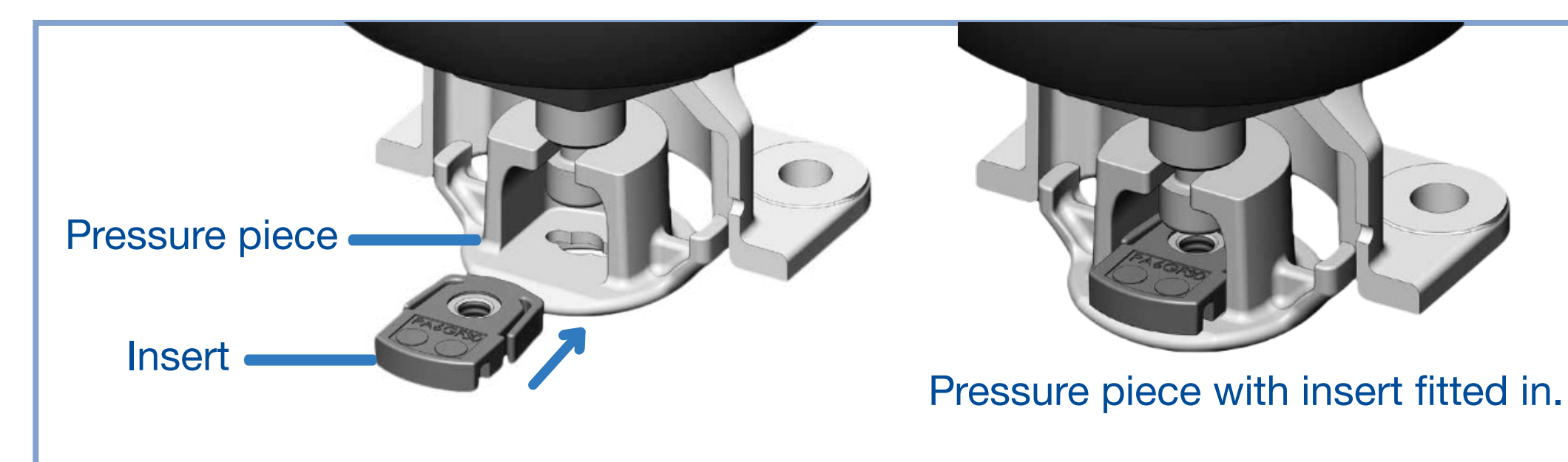
NOTE!
For diaphragms with threaded connection:
→ Screw in and tighten the diaphragm by hand. Afterwards turn back a half turn counterclockwise.
If the pin is under tension the diaphragm can be damaged.

In case of assembly of a diaphragm with bayonet pin, it is important to remove the insert!



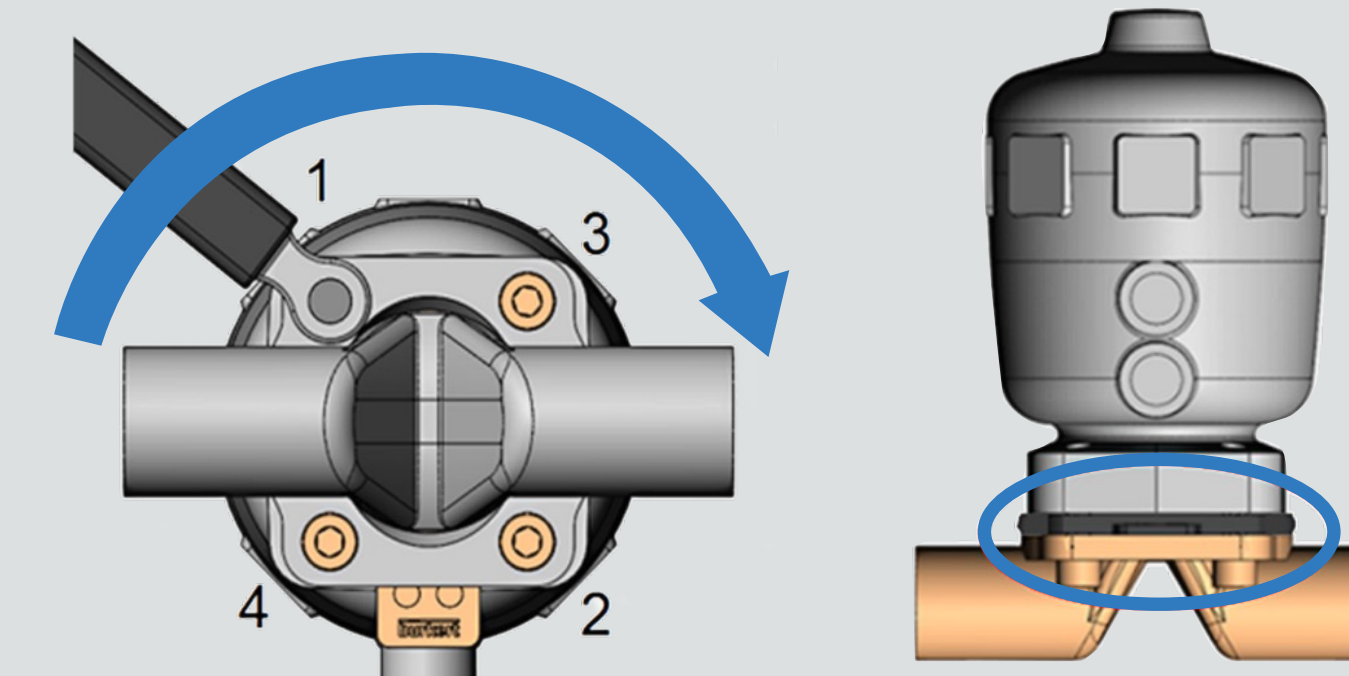
assemble

Diaphragms with threaded connection:



If there is no insert in the pressure pieces push the insert into the pressure piece as shown in the picture

12. Tighten screws in 3 steps



Approx. 1/3, 2/3, 3/3 of the final torque rate according to the attachment torque rates and crosswise. The diaphragm should be evenly aligned and compressed between actuator and body.

Torque Rates / Inspection cycles

Diaphragm size	Torque Rates [Nm]			
	VS, VG, PP, PVC, PVDF		VP	
	EPDM	PTFE	EPDM	PTFE
8	2	2,5	2	2,5
15	3,5	4	3,5	4
20	4	4,5	4	4,5
25	5	6	7	8
32	6	8	8	10
40	8	10	12	15
50	12	15	15	20
65	20	30	20	30
80	30	40	30	40
100	40	50	40	50

Two weir bodies (Robulux)	
Size	Torque Rates [Nm]
RV50	6
RV70	17
RV110	30

For the diaphragm valve the following maintenance activities are required:
→ After the first steam sterilization or if required, screws have to be retightened crosswise.
→ After a max. of 10⁵ cycles the wear and tear of the diaphragm has to be checked!
Remark: Mud-like and abrasive media require shorter inspection cycles.