

# Diaphragm Replacement Guide (manual valve)

1. Turn the valve to the open position counter clockwise at least one turn.



2. Remove the bonnet fasteners.



3. Lift actuator assembly from valve body.



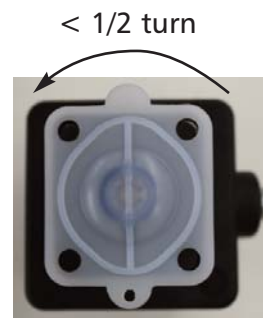
4. Unscrew the diaphragm from the compressor by turning counterclockwise..



5. Install new diaphragm. Engage the threads of the diaphragm into the tube nut by rotating clockwise. Rotate the diaphragm until hard stop or heavy resistance is achieved and additional force does not significantly rotate the diaphragm into the compressor. See "PTFE Diaphragm Installation" instruction sheet for additional detail.



6. Back off (no more than 1/2 turn) until the bolt holes in diaphragm and the bonnet flange align.



7. Replace topworks assembly on body.





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9. Assemble body to bonnet fasteners by hand. No tools.



10. Tighten the bonnet fasteners in a crisscross pattern. Make multiple criss-cross passes to build up torque to the final table value. Make additional criss-cross passes using final table values to evenly tighten each fastener to within 5% of torque value.



#### Fastener torque table for valve body to actuator

Valve size		Bolt size		PTFE diaphragm		Elastomer diaphragm	
Inch	DN	Imperial	Metric	in-lb	N-m	in-lb	N-m
0.50	15	1/4"	M6	25-60	2.8-6.8	20-40	2.3-4.5
0.75	20	1/4"	M6	50-65	5.7-9.1	20-50	2.3-5.7
1.00	25	5/16"	M8	65-90	7.4-11.3	45-70	5.1-7.9
1.50	40	3/8"	M10	200-225	23-25	75-130	8.5-14.7
2.00	50	7/16"	M12	225-275	25-31	100-180	11-20

#### Notes:

As a result of the temperature change in the working cycles (hot and cold) because of the elastomers being submitted to variable constraints, it is necessary to control the compression of the diaphragms and leaktightness by retorquing before putting the valve back into service.

We recommend this operation is completed before the first sterilisation.

With regards to complementary equipment and accessories such as travel stops, opening stops, electrical switches, positioners and process regulators, these must be recalibrated after replacement or readjustment of the diaphragm.

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