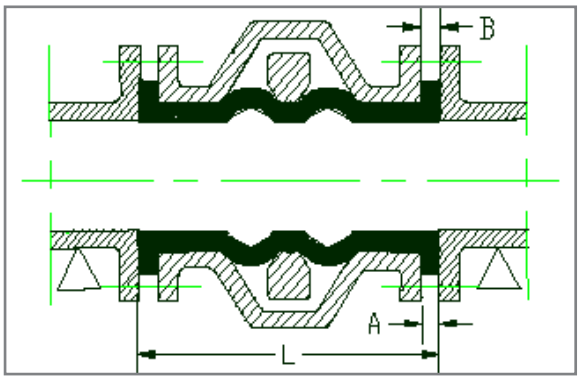
Installation of the RV Valve

Face to face dimensions
Face to face dimensions of RV Valves are according to the standards presented in the Table 1.

Supporting and alignment
The pipe has to be supported from both sides of the valve. The distance difference between the flanges should be A - B < ± 2mm.



Picture 1

DN	25	30	40	50	65	80	100	125	150	200	250	300	350	400	450	500
DIN	-	-	-	-	-	-	300	325	350	400	450	500	550	750	810	880
ASME	127	140	165	178	190	203	229	254	267	292	533	610	686	762	864	914

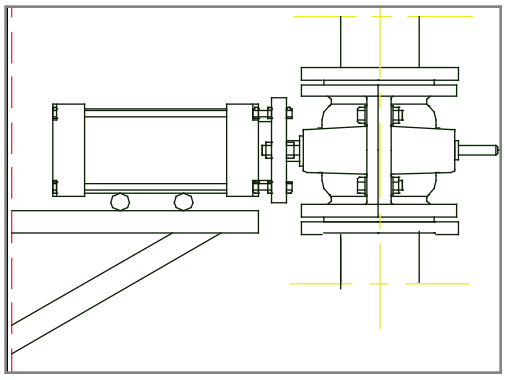
Table 1.

Installation to the pipeline
The flange of the tube functions as gasket between the valve body and the pipe line flanges. Torque all flange bolts in a star pattern; first to 50% of recommended values, and then to 100% of given values. Uneven torquing may damage the rubber flange. Recommended bolt torques are presented in Table 2 for DIN **PN 10** flanges. Initially, torque the bolts to the recommended values. Open and close the valve few times with no line pressure. Re-check the bolt torques and re-torque the bolts to the proper value. Then introduce line pressure. If air or liquid leaks develop increase the recommended torque in increments of **5** Nm until leaking ceases. Due to relaxation of the elastomer, flange seals and bolt torques should be inspected after few days.

DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500
Thread	M12	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M20	M24	M24	M24
M / Nm	12	20	20	20	25	30	30	35	45	55	55	65	55	80	80	95

Table 2. Recommended flange bolt torques for RV Valve. ISO metric standard bolts (slightly greased bolts).

Supporting the actuator
When a tandem pneumatic actuator or the pneumatic actuator with air spring or some other type of heavy actuator is installed in a horizontal position, it is recommended that the actuator is supported as shown in picture 2.



Picture 2

Technical details subject to change without notice.

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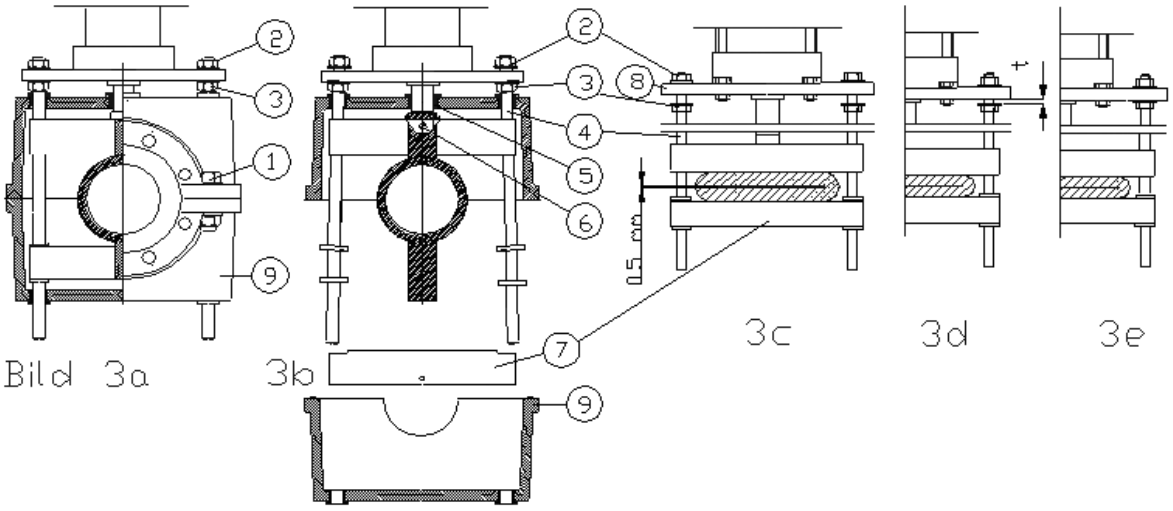
Replacement of the tube and adjustment of the valve closure (pinch bars)
Replacement of the tube without adjusting the valve closure (NOTE! Do not change or move nuts (2) IN DN 40…200. Nut (2) is locked with a set screw, sizes DN25 and DN32 with hard “Loctite”).

Detach the lower part of the valve body (9) from the pipe line by removing the lower flange bolts. (The valve can be also removed completely from the pipe line first). Loosen the nuts (3) in the pull bars (4). Loosen the upper flange bolts so that the tube can be removed from the body/pipe. If the valve is equipped with the opening tags, open screws (6) . Remove the lower pinch bar by spreading slightly the pull bars (4). Now the old tube can be replaced. Fasten the opening tags to the upper pinch bar first. Actuate valve to open. Now the lower pinch bar can be assembled.



Adjustment of the valve closure
If the valve no longer closes entirely due to tube wear or if the position of the nuts (2) has been changed, the distance between the pinch bars has to be re-adjusted correctly to obtain proper sealing and to secure maximum life for the tube. Bigger than DN250 tubes must be adjusted always when replacing tube. When replacing the tube and proceed according to the instructions below.

First turn the nuts (2) to the upper end of the pull bars (4). Push the shaft of the actuator completely out. By turning nuts (2) adjust the distance between the pinch bars so that the gap inside the tube is 0.5 mm (picture 3c) and even. Use feeler gauge to measure the gap. Turn further nuts (2)equally that the light gap just and just disappears. Turn nuts (3) so that the distance (t) between the fixing plate (8) and the washer on the nut (3) is according to the table 3 below (picture 3d). Finally turn nuts (2) until the gap t is closed. The valve is now ready to be connected to the pipe line. Make sure to apply Loc-Tite Blue to nuts & thread and tighten the set screw in the nuts (2). The valve is now ready to be installed.

DN	25-200	250-500
bar	0-10	0-10
t (mm)	4	6

Table 3. Distance (**t**) between the fixing plate and the washer on the nut (3).

If the distance t is larger than indicated in the table 3, the extra pressure may damage the tube prematurely. If the distance is smaller than indicated in the table, the pinch bars do not close the valve completely, and the valve may leak or wear out faster than normal. If the pinch bars are not parallel the premature damage of the tube causing a leak or abnormal wear of the tube may occur.

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