



Installation, Operating, and Maintenance Instructions Series 12, DN 16 - 50 (5/8" - 2")

Vacuum Gate Valve with manual actuator

This manual is valid for the valve ordering numbers:

12124-KA06

12128-KA06

12132-KA06

12134-KA06

The respective product identification is given on each valve in the following way (or similar):



STOP

Read these «**Installation, Operating and Maintenance Instructions**» and the enclosed «**General Safety Instructions**» carefully before you start any other action.

Technical data

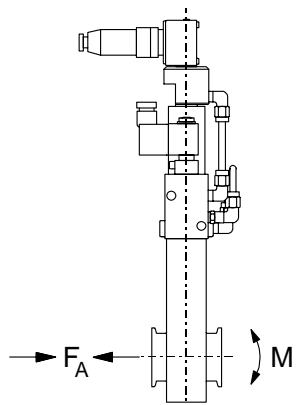
Pressure range	1 x 10 ⁻⁷ mbar to 1 bar (abs)
Differential pressure on the valve gate	1 bar in either direction
Max. differential pressure at opening	
DN 16 / 25 / 40 / 50	750 / 500 / 250 / 150 mbar
Admissible temperature: Valve	< 150°C
Manual actuator	< 100°C

Further data according to VAT catalogue «Vacuum Valves 2000».

Admissible forces

Forces from evacuating the system, from the weight of other components, and from baking can lead to deformation of the valve body and to malfunction of the valve. The stress has to be relieved by suitable means, e.g. bellows sections. The following forces are admissible:

DN (nom. I.D.)		Axial tensile or compressive force «FA»		Bending moment «M»	
mm	inch	N	lbf	Nm	lbf · ft
16	5/8	295	66	12	9
25	1	345	77	15	11
40	1½	490	110	23	17
50	2	590	132	29	21
If a combination of both forces («FA» and «M») occurs, the values mentioned above are invalid. Please contact VAT for more information.					



Trouble shooting

Leak at gate: Clean valve seat and gate seal!
Replace gate seal, if damaged!

Leak at body: Flanges leaktight?
Replace bonnet seal!
Screws at bonnet tightened?



Repairs

Contact VAT for repairs or maintenance. The fabrication No. (F12- /) marked on the valve body has always to be specified. It has to be individually decided whether the work can be performed by the customer or has to be carried out by VAT.

All supplies (e. g. compressed air, electrical power) have to be disconnected for removal/installation of the valve from/into the system.



Even with disconnected supply, loaded springs and/or air cushions in cylinders can be potential hazards.



Keep fingers and objects away from the valve opening!

Products returned to VAT for repair have to be free of harmful substances such as e.g. toxic, caustic or microbiological ones. For radioactively contaminated products the customer has to fill in the VAT form «Contamination and Radiation Report» and to send it with the product. The form is available at VAT. The maximum permissible values indicated in the form must not be exceeded.

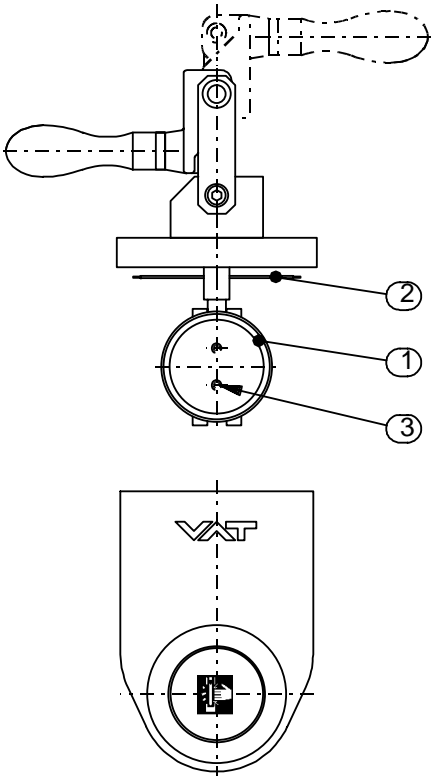
Maintenance

Replacement of actuator/mechanism assembly

1. Vent chambers on either side of valve
2. Open valve
3. Remove screws from bonnet
4. Withdraw actuator/mechanism assembly carefully from body and put it on a clean place
Attention: When withdrawing the actuator/mechanism assembly be careful not to damage the actuator, mechanism and valve shaft!
5. Remove old gate seal and bonnet seal from groove
6. Clean and check groove
7. Clean and check sealing surfaces of bonnet and valve seat
8. Install new gate seal and bonnet seal
Attention: Press O-ring uniformly in crosswise order (diagonal) into groove!
9. Insert actuator/mechanism assembly carefully
Attention: Gate (O-ring) must be on the seat side (marked ▽ on body)!
10. Tighten screws at bonnet uniformly in crosswise order (diagonal)
Tightening torque: DN 16 - 25: 1.5 Nm / 1.1 lbf · ft
DN 40 - 50: 4.0 Nm / 3.0 lbf · ft
11. Perform function and leak test

Valve is ready for operation

Spare parts

Item	Description	DN	Part No.	
	Seal kit	16	68541-R8	
		25	68530-R8	
		40	68542-R8	
		50	68534-R8	
1	Gate seal	16	N-5102-115	
		25	N-5102-120	
		40	N-5102-223	
		50	N-5102-226	
2	Bonnet seal	16	79807-R1	
		25	79807-R1	
		40	79809-R1	
		50	79809-R1	
3	1 Set of locking balls	2 pcs	16	N-6121-026
		2 pcs	25	N-6121-026
		4 pcs	40	N-6121-033
		4 pcs	50	N-6121-033

Warranty

Each product sold by VAT Vakuumventile AG (VAT) is warranted to be free from the manufacturing defects that adversely affect the normal functioning thereof during the one-year period immediately following delivery thereof by VAT, provided that the same is properly operated under conditions of normal use and that regular, periodic maintenance and service is performed or replacements made, in accordance with the instructions provided by VAT. The foregoing warranty shall not apply to any product or component that has been repaired or altered by anyone other than an authorized VAT representative or that has been subject to improper installation or abuse, misuse, negligence or accident. VAT shall not be liable for any damage, loss, or expense, whether consequential, special, incidental, direct or otherwise, caused by, arising out of or connected with the manufacture, delivery (including any delay in or failure to deliver), packaging, storage or use of any product sold or delivered by VAT shall fail to conform to the foregoing warranty or to the description thereof contained herein, the purchaser thereof, as its exclusive remedy, shall upon prompt notice to VAT of any such defect or failure and upon the return of the product, part or component in question to VAT at its factory, with transportation charges prepaid, and upon VAT's inspection confirming the existence of any defect inconsistent with said warranty or any such failure, be entitled to have such defect or failure cured at VAT's factory and at no charge therefor, by replacement or repair of said product, as VAT may elect. VAT MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, EXPRESS OR IMPLIED, (INCLUDING NO WARRANTY OR MERCHANTABILITY), EXCEPT FOR THE FOREGOING WARRANTY AND THE WARRANTY THAT EACH PRODUCT SHALL CONFORM TO THE DESCRIPTION THEREOF CONTAINED HEREIN, and no warranty shall be implied by law.

Furthermore, the «Terms of sale» at the back of the price list are applicable.