PASSION. PRECISION. PURITY.

09.1

HV Gate Valve with Wedge Design – The flexible Solution for Isolation of Gas-Streams with High By-Product Content

VACUUM VALVE SOLUTIONS

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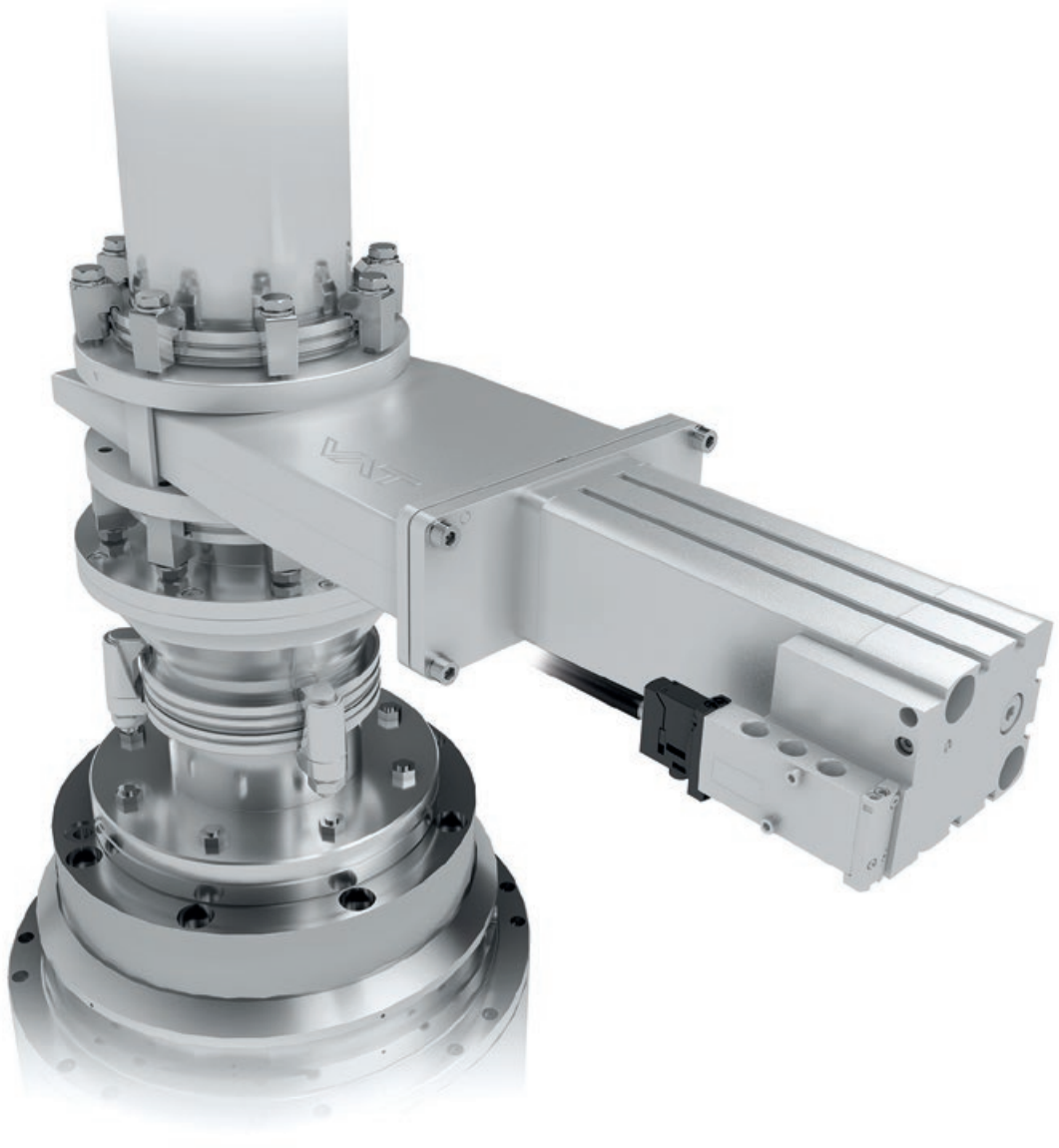
09.1 HV Gate Valve with Wedge Design – For Reliable Operation under Demanding Conditions

High proportions of by-products in the gas flow can lead to valve malfunctions as well as unplanned maintenance work due to the formation of deposits. The 09.1 HV Gate Valve with Wedge Design prevents this. Thanks to its special wedge design with self-cleaning function, it closes and opens reliably even if there are heavy deposits on the valve seat. Due to the wedge-shaped design of the gate, possible deposits are specifically pushed off the valve seat or the gate seal to always guarantee a reliable sealing.

The 09.1 HV gate valve is fully functional at up to 1 bar differential pressure.

Already installed in thousands of demanding applications under various process conditions, the 09.1 HV gate valve with wedge design has proven its outstanding reliability. Especially in sub-fab applications, it has become the standard solution for vacuum pump isolation. Thanks to a wide range of design options, the gate valve can be easily integrated into any application.



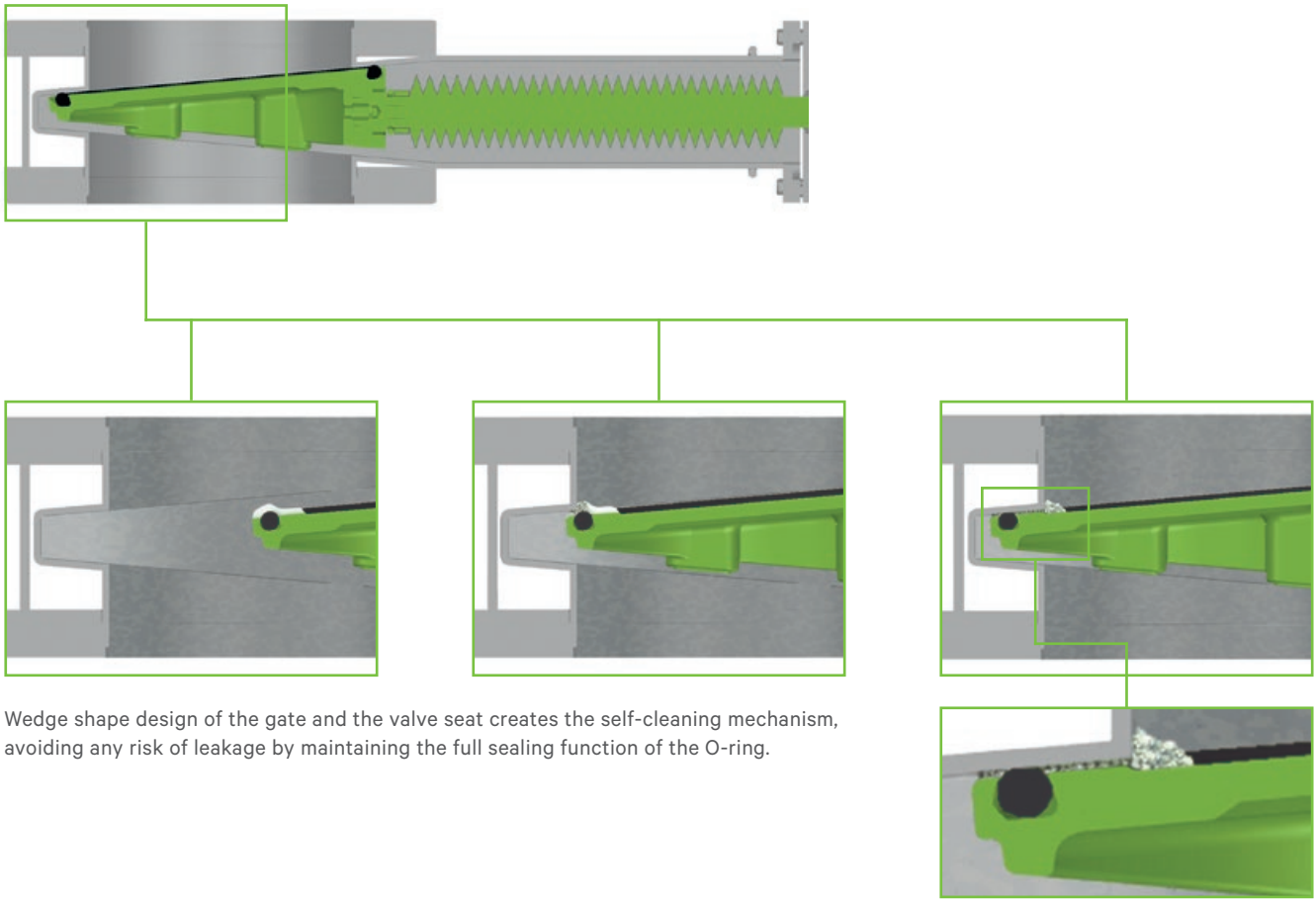
The 09.1 HV gate valve with wedge design is available in manual and pneumatic versions. The standard voltage of the control valve is 24 VDC. For flange connections, customer-specific flanges are possible in addition to ISOKF, ISO-F, CF-F, ASA-LP or JIS. The standard O-ring material is FKM, but other materials are available upon request. In addition, the integration of a soft-pump function is an option as well as providing additional access points for e.g. measuring instruments.

Features:

- Self-cleaning function due to wedge design
- Valve opening possible at differential pressure of up to 1 bar
- Flexible configuration options for a wide range of applications

Benefits:

- Excellent reliability
- Extended maintenance cycle
- Low operating costs



Wedge shape design of the gate and the valve seat creates the self-cleaning mechanism, avoiding any risk of leakage by maintaining the full sealing function of the O-ring.

TECHNICAL DATA

Sizes		DN 50 (2"), DN 63 (2½"), DN 80 (3"), DN 100 (4"), DN 160 (6"), DN 200 (8")
Actuators		manual with crank handle pneumatic: double acting
Body material		stainless steel
Feedthrough		bellows
Standard flanges		ISO-KF, ISO-F, CF-F, ASA-LP, JIS
Leak rate	valve body valve seat	$< 1 \times 10^{-9}$ mbar $l s^{-1}$ $< 1 \times 10^{-7}$ mbar $l s^{-1}$
Pressure range		1×10^{-8} mbar to 1.2 bar (abs)
Differential pressure on the gate		≤ 1.2 bar
Differential pressure at opening		≤ 1 bar
Cycles until first service [1]		5 000
Temperature [2]	valve body manual and pneumatic actuator solenoid valve position indicator	≤ 180 °C ≤ 100 °C ≤ 50 °C ≤ 70 °C
Material	valve body, plate gate bellows	AISI 304 (1.4301) AISI 304 (1.4301) AISI 633 (AM350)
Seal	bonnet, gate	FKM (Fluoroelastomer) optional: FFKM (e. g. Chemraz SFX)
Feedthrough		bellows
Mounting position		any
Solenoid valve		24 VDC, 1 W
Position indicator: contact rating		voltage: 24 VAC/DC current: ≤ 0.5 A power: max. 10 W

[1] Depending on the process conditions. Shorter service intervals may be required.
[2] Maximum values depending on operating conditions and sealing materials.

OPTIONS, CUSTOMIZED SOLUTIONS

- Solenoid valve for impulse actuation
- Other solenoid valve voltages (standard 24 VDC)
- Ports for roughing (by-pass), venting or for gauges
- Integrated soft-pump valve, control unit for soft-pump sequence
- Protection ring design option for extremely harsh processes
- Logout/Tagout (Loto)

ACCESSORIES

- Separate solenoid valve for external mounting
- Cable solutions
- Heater jackets (on request)

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