



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**HV gate valve, Series 091, DN 100 (ID 4'')**  
**Ordering No. 09140-UE01**

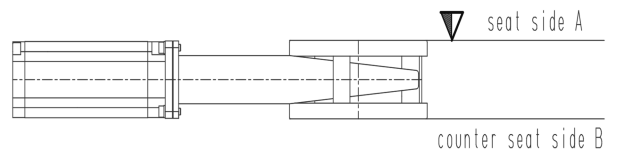
### Description

Flange	CF-F 100 UNF
Actuator	Manual actuator with detachable handle, self locking in any position, visual position indicator
Number of turns needed for full stroke	39 Turns
Feedthrough	Bellows feedthrough

### Technical data

Leak rate	
– Valve body	$< 1 \cdot 10^{-9} \text{ mbar ls}^{-1}$
– Valve seat	$< 1 \cdot 10^{-7} \text{ mbar ls}^{-1}$
Pressure range	$1 \cdot 10^{-8} \text{ mbar}$ to 1.2 bar (abs)
Differential pressure on the gate	$\leq 1.2 \text{ bar}$
Conductance (molecular flow)	$1\,700 \text{ ls}^{-1}$

Max. differential pressure at opening in closing and opening direction with influence to the cycle life



– Higher pressure on seat side A, the differential pressure acts in opening direction	$\leq 1.0 \text{ bar}$ with full cycle life
– Higher pressure on counter seat side B, the differential pressure acts in closing direction	$\leq 30 \text{ mbar}$ with full cycle life
– Higher pressure on counter seat side B, the differential pressure acts in closing direction	$\leq 1.0 \text{ bar}$ with reduced cycle life
Cycles until first service	5 000 (unheated and under clean conditions)
Bellows cycles	100 000 (unheated and under clean conditions)
Bake-out temperature	
– Valve body	$\leq 150 \text{ }^\circ\text{C}$ (bake-out max. 24h)
– Actuator	$\leq 100 \text{ }^\circ\text{C}$

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Heating and cooling rate	50 °C h <sup>-1</sup>
Material	
– Valve body	AISI 304 (1.4301)
– Gate	AISI 304 (1.4301), (1.4308)
– Parts (in contact with media)	A2 Ni-Teflon coated, PEEK
– Bellows	AISI 633, (AM350)
Seal	
– Bonnet	FKM (Viton <sup>®</sup> )
– Gate	FKM (Viton <sup>®</sup> )
– Actuator	FKM (Viton <sup>®</sup> )
Mounting position	any
Weight	approx. 8.3 kg / 18.3 lbs

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