



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

All-Metal Angle Valve, Series 57.0, DN 100 (ID 4")

Ordering No. 57040-GE02-0006

Description

Flange	DN100 CF-R
Actuator	manual, hexagon head SW 27
Feedthrough	bellows

Technical data

Leak rate	
- To the outside	$\leq 1 \cdot 10^{-10}$ mbar ls ⁻¹
- Seat	$\leq 1 \cdot 10^{-10}$ mbar ls ⁻¹
Molecular flow conductance	380 ls ⁻¹
Pressure range	UHV to 5 bar (abs)
Test pressure	1 bar
Differential pressure on the gate	
- in closing and opening direction	≤ 5 bar
Max. differential pressure at opening	
- in closing and opening direction	1 bar (> 1 bar at reduced cycle lifetime)
Cycles until first service	10'000
Bake-out temperature	
- Valve - open	$\leq 450^{\circ}\text{C}$
- Valve - closed	$\leq 350^{\circ}\text{C}$
- Actuator	$\leq 300^{\circ}\text{C}$
Heating and cooling rate	$\leq 60^{\circ}\text{C h}^{-1}$
Material	
- Body, Mechanism (in contact with media)	1.4435/1.4404, AISI 316 L; 1.4435, AISI 316 L, ESU
- Bellows	1.4404, AISI 316 L
Seal	
- Bonnet, Plate	metal (silver plated)
Mounting position	any
Radiation resistance	
- Valve / Actuator	10^8 Gy (10^{10} rad) / 10^8 Gy (10^{10} rad)
Turns per stroke	6.4
Closing torque	90 Nm / 66 lbs
Weight	15 kg / 33 lbs

Dimensions

Dim. Drawing no. 502029

Comments

The VATRING patented by VAT guarantees a constant closing torque during the specified cycle life of 10'000 cycles. No service except regreasing of the spindledrive after high bakeout is necessary during this cycle time.

The following torques are required to close the valve:

Valve DN	Hexagon head (mm)	M_{nom} (Nm)	M_{min} (Nm)	M_{max} (Nm)
100	27	90	64	100

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