A4003/A4063-...Rising /Non-Rising Stem Gate Valve Series

Rising /Non-Rising Stem Gate Valve
A4003/A4063-...Series
Flanged Connection
PN10, PN16, PN25

Performance & Features:

Resilient seated gate valve is also known as a rising stem/non-rising stem gate valve. Generally, trapezoidal threads are provided on the rising stem. With the nut at the top of the valve and the guide grooves on the valve body, rotational motion is converted into linear motion, namely transforming operating torque into operating thrust. When opening the valve, the flow passage is fully unobstructed once the lifting height of the gate plate reaches 1.1 times the full bore diameter of the valve. The opening and closing element of a gate valve is the gate wedge, which moves perpendicularly to the fluid flow direction. Gate valves are only designed for fully open and fully closed operation and are not suitable for regulating or throttling service.

- Nominal diameter: DN50...DN600 (for other sizes, please contact the ZIGTOO representative).
- Full-bore design and low fluid resistance, with its resistance coefficient approximately equal to that of a pipe section of the same length.
- Flat-bottom seat design: Conventional gate valves tend to accumulate foreign matters such as stones, wood fragments, cement, paper scraps and other debris in the concave groove at the valve bottom after pipeline flushing, which may lead to incomplete closure and water leakage. The soft sealing gate valve adopts a flat-bottom structure consistent with the pipeline inner wall, effectively preventing debris deposition and ensuring unobstructed fluid flow.
- Integral rubber encapsulation: The wedge is fully encapsulated with high-quality rubber on both inner and outer surfaces. Adopting first-class domestic rubber vulcanization technology, the finished wedge maintains precise geometric dimensions after vulcanization. The rubber is firmly bonded to the ductile iron gate wedge, resisting peeling and delivering excellent elastic memory performance.
- Corrosion resistance: The valve body is coated with powder epoxy resin to prevent corrosion and rusting, making it suitable for sewage system applications.
- Triple O-ring seal design: The valve stem is equipped with three O-rings, which reduces friction resistance during opening and closing and greatly minimizes water leakage. The seals can be replaced without shutting off the water supply.
- Drinking-water safe: The interior of the valve body is coated with non-toxic epoxy resin, and both inner and outer surfaces of the gate wedge are fully rubber-encapsulated. This prevents rusty water and internal corrosion, making the valve suitable for potable water systems.
- Precision cast valve body: The valve body is manufactured by precision casting. Accurate geometric dimensions ensure reliable tightness without additional finish machining inside the valve body.

Applications:

Conventional gate valves widely used in the market have long suffered from common problems such as water leakage and rusting. The resilient seated gate valves manufactured by ZIGTOO overcome the shortcomings of conventional products, including poor tightness, elastic fatigue and easy corrosion. Relying on the micro-deformation compensation of the resilient gate wedge, the valve achieves superior sealing performance. It features light operation, reliable sealing, excellent elastic memory and long service life.

Gate valves are typically installed on pipelines conveying media in projects such as buildings, apartments, office buildings, complexes, data centers and factories, including water supply and drainage, cold and hot water, water treatment, as well as primary and secondary hot water supply pipelines. They can be used for on/off service, and also for functions such as blowdown and pressure relief. Compatible media include water, ethylene glycol solution and other fluids.

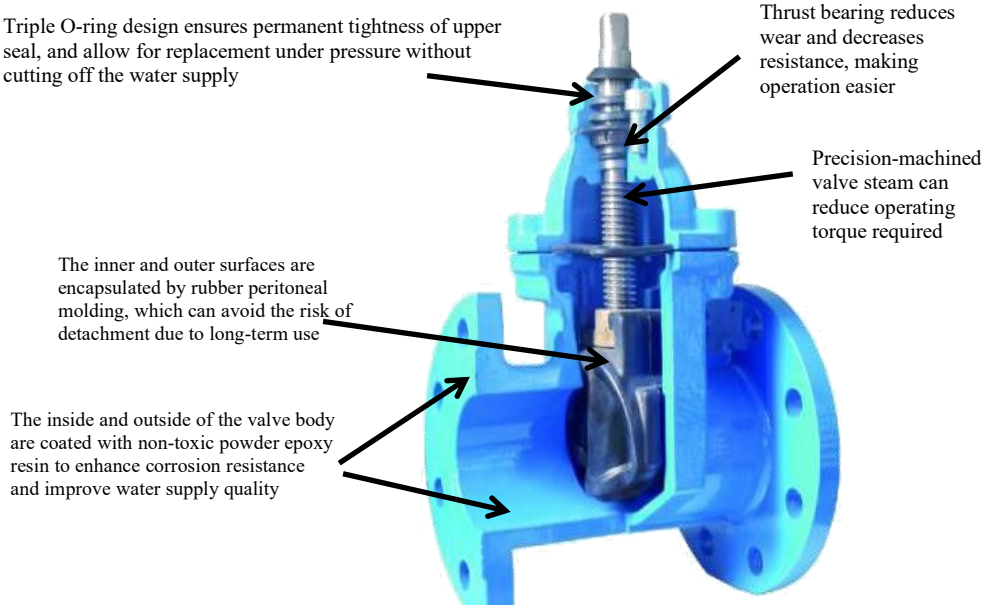
Model Designation:

For example: A4003 (W)-100-16Q3

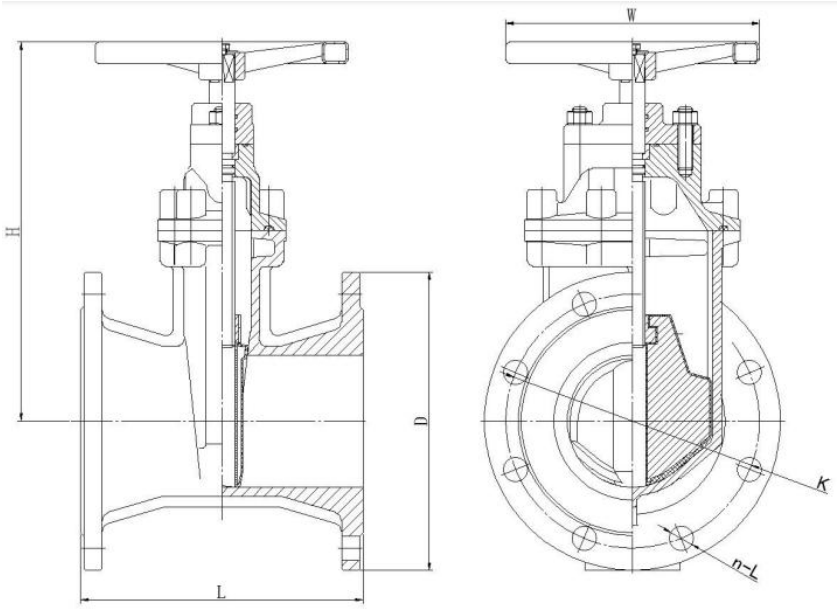
1. "A40": Gate valve;
2. "0": Non-Rising Stem; "6": Rising Stem;
3. "3": Flanged Connection;
4. "W": Handwheel-operated (omitted by default); "E": Electric Actuated; "S:Signal"
5. "-100": Nominal Diameter DN100;
6. "-" separator;
7. "-25/16/10" Nominal Pressure, PN25/PN16/PN10;
8. "Q": Ductile Iron; "C" Cast steel; "P" Stainless Steel;
9. "Wedge": "1": EPDM+Ductile Iron; "2": EPDM+Stainless Steel; "3": Brass Seat; "4": Stainless

Technical Specification:

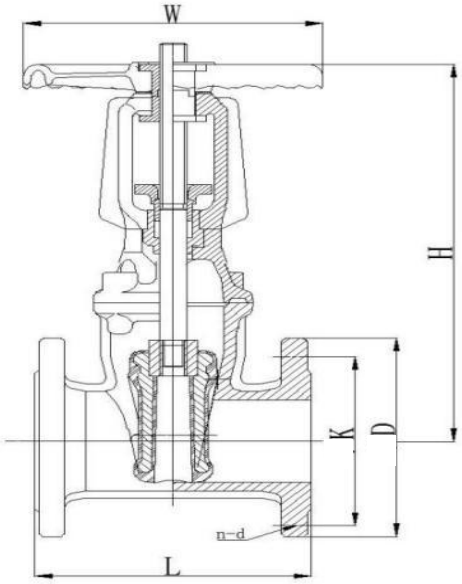
PN (Nominal Pressure)	PN10, PN16, PN25
Connection standard	Flanged connection EN1092-2
Working Temperature	0℃~120℃
Body, Bonnet, Handwheel	Ductile Iron
Seal	EPDM
Bearing, Bushing	Bronze, Brass, Stainless Steel
Stem	Stainless Steel



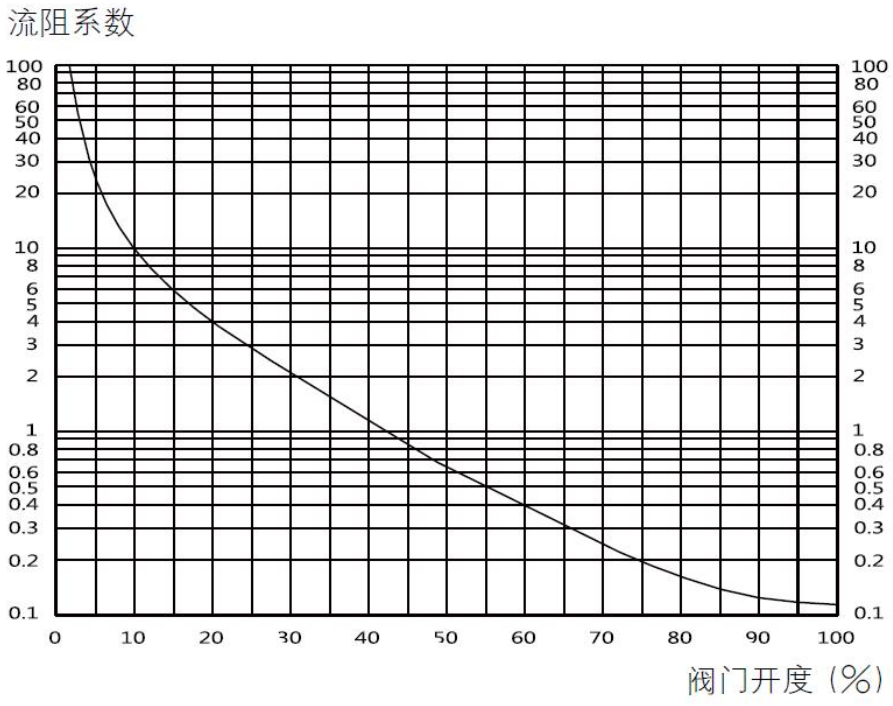
Dimension Chart:



Model	DN	L	H	W	D	K	n-L	Number of Turns
A4003-50-16Q	DN50	178	250	160	165	125	4-19	12
A4003-65-16Q	DN65	190	275	160	185	145	4-19	16
A4003-80-16Q	DN80	203	310	180	200	168	8-19	16
A4003-100-16Q	DN100	229	340	200	220	180	8-19	20
A4003-150-16Q	DN150	267	470	250	285	240	8-19	30
A4003-200-16Q	DN200	292	560	300	340	295	12-23	40
A4003-250-16Q	DN250	330	645	350	405	355	12-28	42
A4003-300-16Q	DN300	356	740	400	460	410	12-28	50
A4003-350-16Q	DN350	381	805	500	520	470	16-28	58
A4003-400-16Q	DN400	406	910	500	580	525	16-31	67
A4003-450-16Q	DN450	432	1000	520	640	585	20-31	75
A4003-500-16Q	DN500	457	1110	600	715	650	20-34	82



Model	DN	L	H	W	D	K	n-d	Number of Turns
A4063-50-16Q	DN50	178	380	160	165	125	4-19	12
A4063-65-16Q	DN65	190	440	160	185	145	4-19	16
A4063-80-16Q	DN80	203	540	180	200	168	8-19	16
A4063-100-16Q	DN100	229	620	200	220	180	8-19	20
A4063-150-16Q	DN150	267	790	250	285	240	8-19	30
A4063-200-16Q	DN200	292	1040	300	340	295	12-23	40
A4063-250-16Q	DN250	330	1190	350	405	355	12-28	42
A4063-300-16Q	DN300	356	1380	400	460	410	12-28	50



* Parameters in this document are for reference only due to product upgrades or updates. For accurate specifications, please contact ZIGTOO representatives.