

CAST STEEL WEDGE GATE VALVES WITH NON-RISING STEM

DN 400 (16")...800 (32") mm,

PN 2,5 (25); 6,4 (64) MPa (bar)

APPLICATION

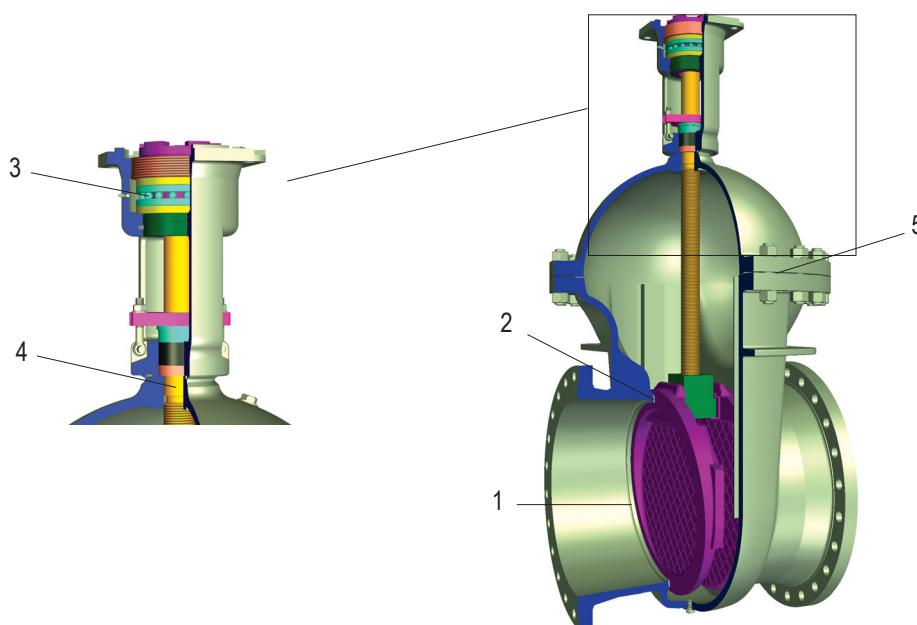
Used as stop valves for pipelines transporting:

- water, vapor and other nonflammable, non-explosive and non-toxic media (Water);
- oil, petrochemical products, synthetic oil and other explosive flammable liquids (Oil).

CONSTRUCTIONS RANGE TABLE

PN, MPa (bar)	DN, mm (inch)	Designation	Operating medium, temperature, °C	Connection to the pipeline	Type of operating
2,5 (25)	400 (16)	PT12003-400	Water, Oil ≤ 300	Flanged Welded	Gear Electric drive
	500 (20)	PT12003-500		Welded	
	600 (24)	PT12003-600		Flanged Welded	
	800 (32)	PT12003-800			
6,4 (64)	500 (20)	PT12004-500			Gear Electric drive

DESIGN FEATURES



1. Full bore body design enables maintenance and diagnostic equipment to pass through.
2. Corrosion-resistant overlay of the trim and resilient seal made of polyurethane in the seats increase reliability and extend service life of the valve.
3. Roller bearings in the yoke decrease the effort of the actuator.
4. Thermo expanded graphite for sealing gland and backup fluoroplastic sealing decrease friction wear-out and increase sealing gland durability.
5. "Body-to-cover" sealing gland includes heat-expanded graphite that increases its operating life and decreases the effort on the connection covering.

ACTUATION

Reduction gear or electric drive. When desired by Customer the gate valves may be completed with electric drives of Russian or international manufacturers (AUMA, ROTORK, LIMITORQUE, FESTO, etc).

TIGHTNESS

The closure sealing is metal-to-metal type.

Complete tightness (zero leakage).

MOUNTING IN THE PIPELINE

Line medium flow – bidirectional.

Mounting in the pipeline – recommended position – vertical with actuator upwards. When installed obliquely (with angle of slope exceeding 15°) it is recommended that supports under the yoke should be used in order not to exceed the bending moment capacity limit of the pipeline.

Connection to the pipeline – flanged (according to GOST 12815-20, ANSI B16.34) or welded (see table of modifications). When required by Customer, flanged valves may be supplied complete with connection accessories (flanges, gaskets, fasteners).

CLIMATIC SERVICE CONDITIONS

Ambient temperature range: – 60 °C to + 50 °C.

MINIMUM SERVICE LIFE – 30 years.

MATERIALS

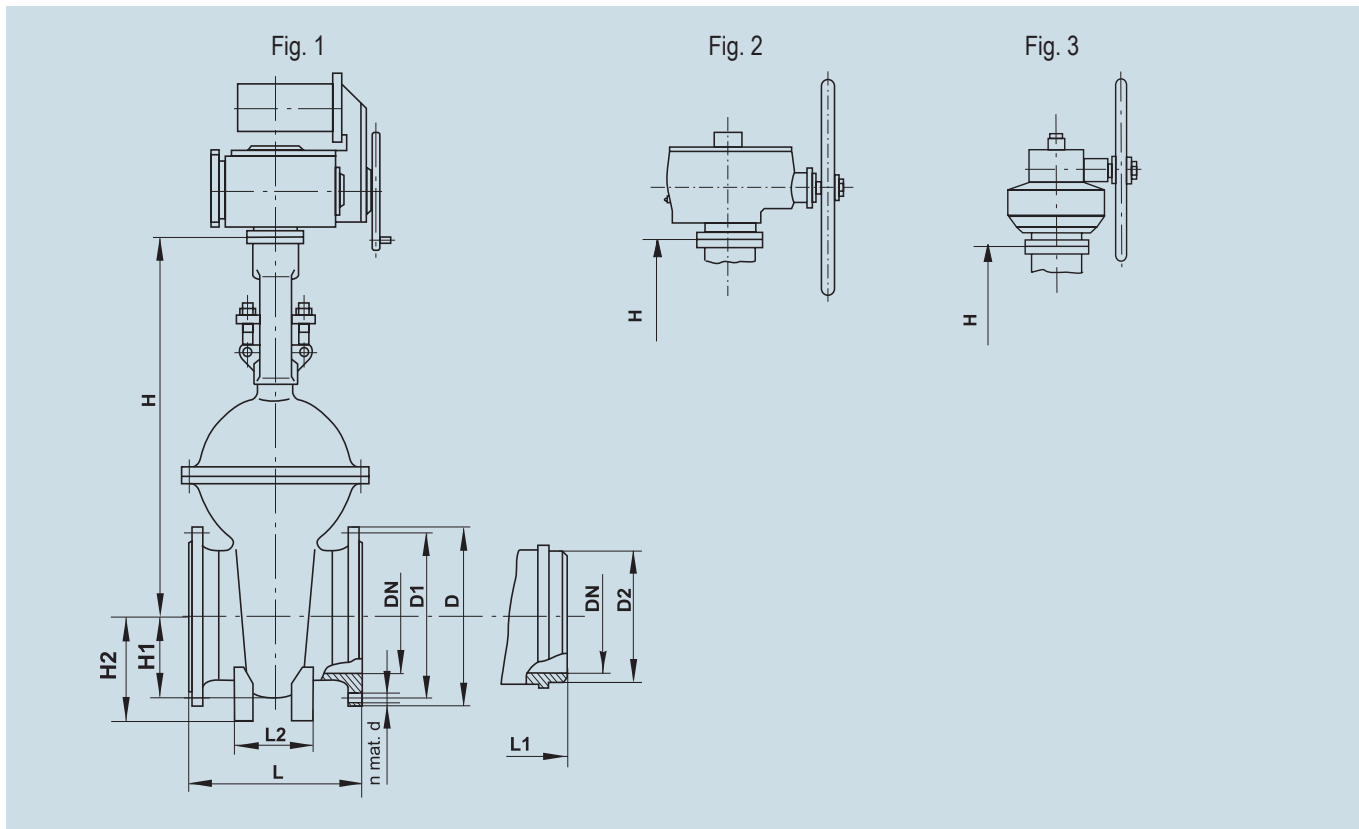
Cadmium or zinc coating is available for tropical versions.

Part name	Material	
	DIN	ASTM
Body	GS-C25; GS-C25N, GS-16Mn5,GS-20Mn5	A216 Gr WCB, A216 Gr WCC
Wedge	GS-C25; GS-C25N, GS-16Mn5,GS-20Mn5	A216 Gr WCB, A216 Gr WCC
Stem	X20Cr13	A473, A580, AISI 420
Gasket	Thermal Expanded Graphite	
Cover	GS-C25; GS-C25N, GS-16Mn5,GS-20Mn5	A216 Gr WCB, A216 Gr WCC
Nut	C35, 41CrS4	A915, AISI 1035, A331, AISI 5140
Pin	C35, 41CrS4	A915, AISI 1035, A331, AISI 5140
Gland	Thermal Expanded Graphite	
Bushing	C22	A566, AISI 1020
Flange	RS137-2	A283/C
Thread bushing	Bronze	
Body ring overlay	Corrosion-resistant over welding	
Wedge overlay	Corrosion-resistant over welding	

COMPLETE SET OF SUPPLY

Complete set of supply includes: gate valve, reduction gear (for manually actuated valves), gate valve certificate, technical manual and service guide. Electric actuator, mating flanges with fasteners and gaskets are supplied when required by Customer.

DIMENSIONS AND DRAWING



DN, mm (inch)	PN, MPa (bar)	Designation	Fig.	Dimensions, mm											Weight, kg *		
				D	D1	D2	n	d	L	L1	L2	H	H1	H2	Flanged		
															Without mating parts	With mating parts	Welded
400 (16)	2,5 (25)	PT12003-400	1	610	550	430	16	33	600	600		1168	295		612	676	525
			2														
500 (20)	2,5 (25)	PT12003-500	1	730	660	535	20	39	700	700	-	1475	367	-	1235	1490	1200
			2														
600 (24)	6,4 (64)	PT12004-500	1	800	705	540	20	52	1150	1150		1600	295		2086	2678	1656
			2														
600 (24)	2,5 (25)	PT12003-600	1	-	-	635	-	-	-	800	500	1630	-	430	-	-	1290
800 (32)			2	1075	990	826	24	45	1000	1000	-	2010	-	-	3757	4358	3635

* Note: the table contains weights of gate valves complete without electric drives.



PT12003-400