

# RUBBERIZED-WEDGE CAST CARBON STEEL GATE VALVES

## DN 400 (16")...1000 (40") mm, PN 1,0 (10) MPa (bar)

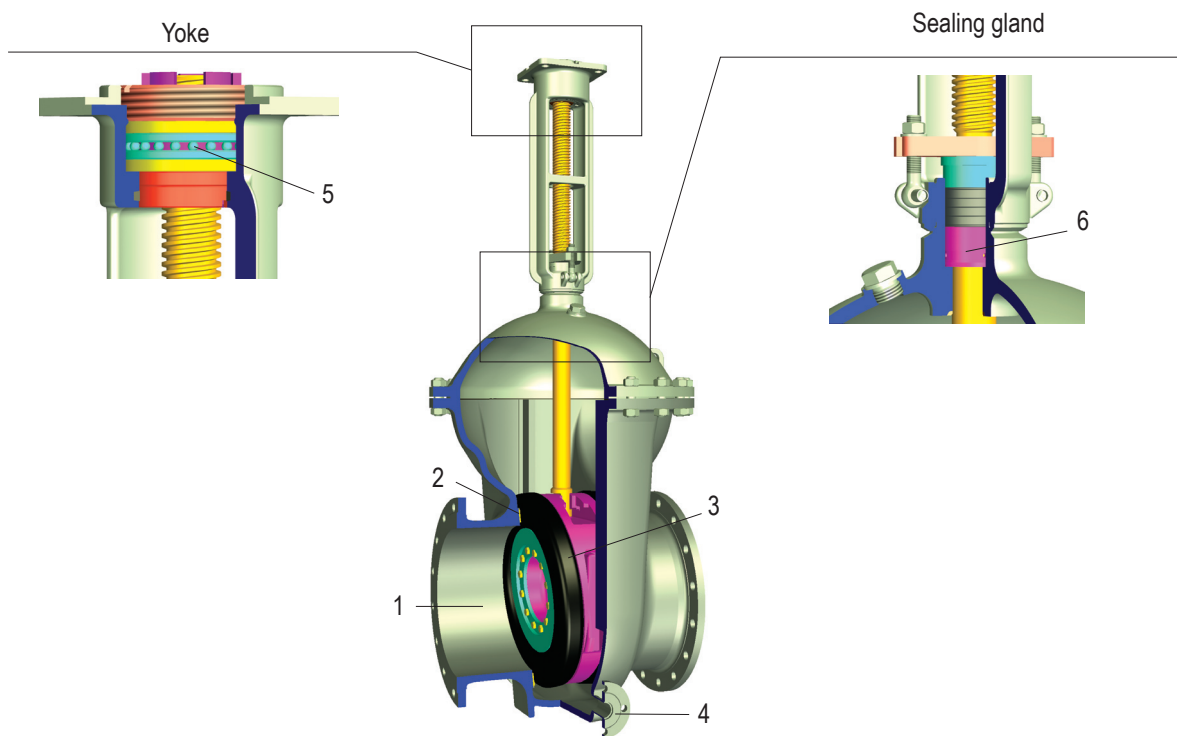
### APPLICATION

Used as stop valves for pipelines transporting abrasive fluids.

### CONSTRUCTIONS RANGE TABLE

PN, MPa (bar)	DN, mm (inch)	Designation	Operating medium, temperature, °C	Connection to the pipeline	Type of operating
1,0 (10)	400 (16)	PT11090-400	Abrasive slurry ≤ 80	Flanged	Electric drive
		PT11090-400M			Hydraulic actuator
	500 (20)	PT11090-500			Electric drive
	600 (24)	PT11090-600			Hydraulic actuator
		PT11090-600M			Electric drive
	800 (32)	PT11090-800			Electric drive
1000 (40)	PT11090-1000	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. Rubberized wedge protects from abrasive wear-out and line medium deposits.

4. A hatch in the bottom part of the valve body allows to remove sediment preventing full closure of the valve.
5. Roller bearings in the yoke decrease the effort of the actuator.
6. Thermo expanded graphite for sealing gland and backup fluoroplastic sealing decrease friction wear-out and increase sealing gland durability.

## ACTUATION

Electric drive or Hydraulic actuator. 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-rubber 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 B 16.34). When required by Customer, flanged valves may be supplied complete with connection accessories (flanges, gaskets, fasteners).

## CLIMATIC SERVICE CONDITIONS

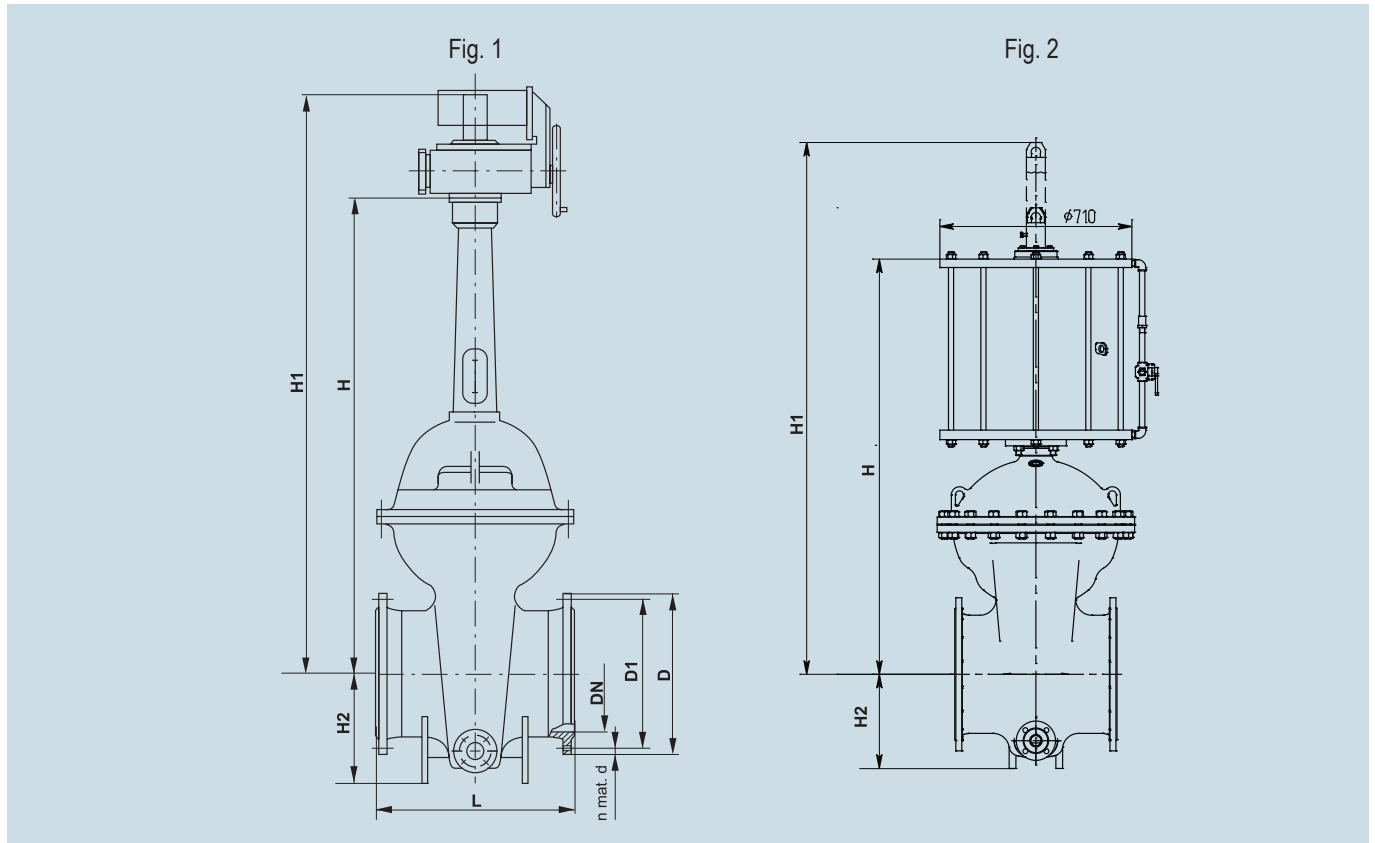
Ambient temperature range: – 40 °C to + 50 °C.

## MATERIALS

**Cadmium or zinc coating is available for tropical versions.**

Part name	Material	
	DIN	ASTM
Body	GS-C25; GS-C25N	A216 Gr WCB
Wedge	GS-C25; GS-C25N	A216 Gr WCB
Spindle	X20Cr13	A473, A580, AISI 420
Gasket	Thermal Expanded Graphite	
Cover	GS-C25; GS-C25N	A216 Gr WCB
Nut	C35	A915, AISI 1035
Pin	C35	A915, AISI 1035
Gland	Thermal Expanded Graphite	
Bushing	C22	A556, AISI 1020
Flange	C22	A556, AISI 1020
Nut	C35	A915, AISI 1035
Pin	C35	A915, AISI 1035
Thread bushing	Bronze	
Body ring overlay	Corrosion-resistant over welding	

## DIMENSIONS AND DRAWING



DN, mm (inch)	Designation	Fig.	Dimensions, mm								Weight, kg *	
			D	D1	n	d	L	H	H1	H2	Without mating parts	With mating parts
400 (16)	PT11090-400	1	565	515	16	26	600	1470	1990	330	776	856
	PT11090-400M	2									1532	2195
500 (20)	PT11090-500	1	670	620	20	27	700	1795	2468	410	1215	1289
600 (24)	PT11090-600	1	780	725		30	800	2010	2700	473	1903	2016
	PT11090-600M	2			2040	2730		1294	1407			
800 (32)	PT11090-800	1	1010	950	24	33	1000	2885	3890	620	3020	3272
1000 (40)	PT11090-1000	1	1220	1160			28	1200	3480	4640	758	4325

\*Note: the table contains weights of gate valves without actuator and weight of gate valve PT11090-400m completed with gas-over-oil actuator.

## COMPLETE SET OF SUPPLY

Complete set of supply includes: gate valve, gate valve certificate, technical manual and service guide. Electric actuator, mating flanges with fasteners and gaskets are supplied when required by Customer.