

### High Pressure Gate Valves [GHP]

DN 15( 1/2”) ÷ DN 300 ( 12”)

PN 250 ÷ PN 420

Class 1500 ÷ Class 2500

#### Design

- Forged or casted body and bonnet
- Pressure seal design
- Rising stem (RS), outside screw and yoke (OS&Y)
- Split wedge type obturator
- Seating surfaces made from 17Cr or Stellite

#### Applications

- Power plant, Chemical, Petrochemical, Refining, water supply and other

#### Media

- Depending on the gate valves materials for: water, steam, gas, oil and other non-aggressive media.

#### Pressure and temperature

(table D.6.8 and D.6.9)

- Pressures up to 400 bar
- Class 1500 + Class 2500
- Temperature up to 600 °C

#### Materials (table D.6.1)

- Carbon, heat resistant alloys and stainless steel

#### Advantages

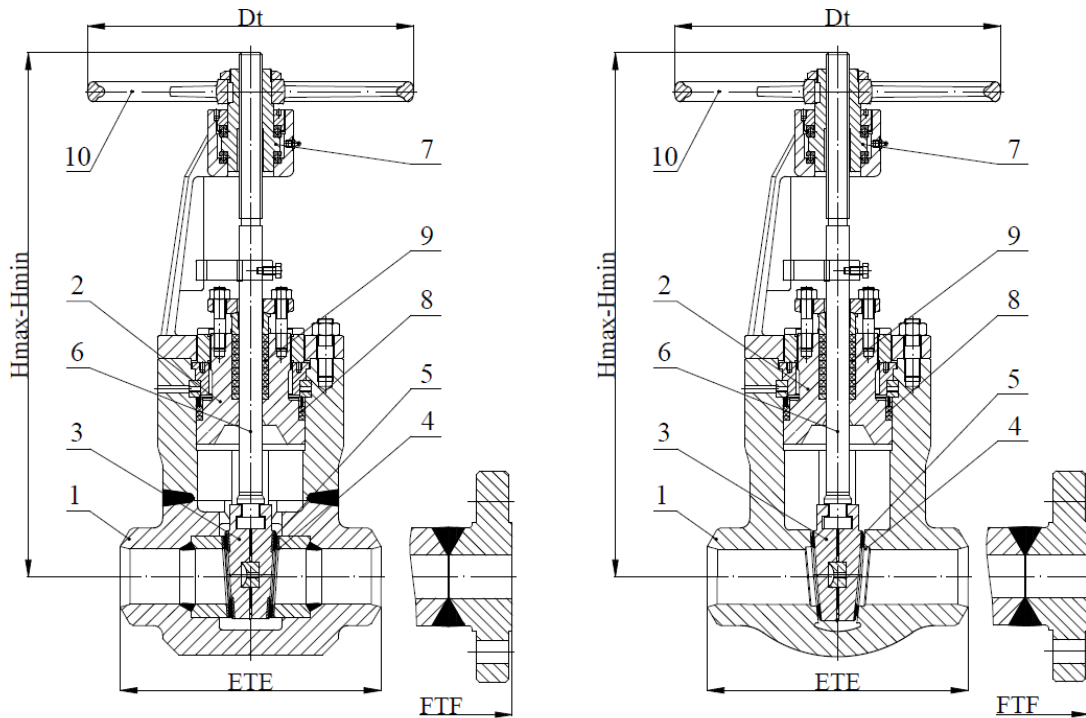
- Long service life
- Respect to emission standards
- Easy handling and maintenance
- Stem packing replacement in working conditions

#### Options

- Electric actuator
- Position indicator
- Extended stem
- Locking device
- Spring loaded stuffing box (SLSB)
- With hole in the wedge
- With bypass Valve
- With equalizing pipe and bypass valves
- Flanges and welding ends according to: GOST, DIN, EN, ASME, etc.
- Other paint finishes are available upon customer's request

#### Testing

- Every produced gate valve was tested according to API 598 or EN 12266



Drawing D.6.1 Parts and dimensions

List of materials

Table D.6.1

Item	Part	Material Group acc. to EN 12516-1 (ASME B16.34)				
		3E0 (1.1)	4E0 (1.5 i 1.3)	5E0 (1.17 i 1.9)	6E0 (1.10)	9E1 / 1C15 (1.15)
		Primena				
		up to 400°C (-29°C+425°C)	up to 550°C (-29°C+470°C)	up to 550°C (-29°C+595°C)	up to 600°C (-29°C+595°C)	up to 600°C (-29°C+600°C)
1	Body <sup>(1)</sup>	1.0460 / 1.0619 (A105 / WCB)	1.5415 / 1.5419 (F1 / WC1)	1.7335 / 1.7357 (F12 Cl.2 / WC6)	1.7383 / 1.7379 (F22 Cl.3 / WC9)	1.4903 / C12A (F91 / C12A)
2	Bonnet <sup>(1)</sup>	1.0460 / 1.0619 (A105 / WCB)	1.5415 / 1.5419 (F1 / WC1)	1.7335 / 1.7357 (F12 Cl.2 / WC6)	1.7383 / 1.7379 (F22 Cl.3 / WC9)	1.4903/C12A (F91 / C12A)
3	Disc <sup>(1)</sup>	1.0460 / 1.0619 (A105 / WCB)	1.5415 / 1.5419 (F1 / WC1)	1.7335 / 1.7357 (F12 Cl.2 / WC6)	1.7383 / 1.7379 (F22 Cl.3 / WC9)	1.4903/C12A (F91 / C12A)
4	Body welded on with	17Cr (up to 450°C) or Stellite				
5	Disc welded on with	17Cr (up to 450°C) or Stellite				
6	Stem	1.4021 / 1.4122				
7	Stem Nut	1.0715 / 1.7225 / Cu alloy				
8	Bonnet Gasket	graphite with corrosion inhibitor				
9	Stem Packing	graphite with corrosion inhibitor				
10	Handwheel	Cast iron				

<sup>(1)</sup>other materials available according to ASTM standards

Standards

Table D.6.2

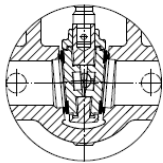
High Pressure Gate Valves	Class 1500 ÷ Class 2500 and PN 250 ÷ PN 400
Face-to face dimensions according to	ASME B16.10 and Manufacturer standard
Flanged ends according to	ASME B16.5 or EN 1092-1
Welding ends according to	ASME B16.25 or EN 12627

### Range of application

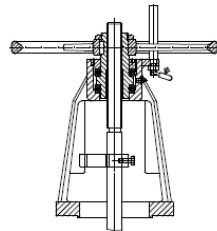
Table D.6.9

Materials	Class	Pressure (bar) / temperature (°C) ratings according to ANSI B16.34																			
		-29 +38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538	550	575	600	
A 105 WCB	1500	255,3	250,6	233,0	225,4	219,0	209,7	199,1	193,6	187,8	181,8	173,6	143,8	115,0	87,2	58,8	29,5				
	2500	425,5	417,7	388,3	375,6	365,0	349,5	331,8	322,6	313,0	303,1	389,3	239,7	191,7	145,3	97,9	49,2				
WC1	1500	240,1	237,3	226,7	219,7	212,7	203,9	193,4	187,9	182,0	174,9	163,1	136,5	107,9	78,3	55,4	29,5				
	2500	400,1	395,6	377,8	366,1	354,4	339,8	322,4	313,1	303,3	291,4	271,9	227,5	179,9	130,6	92,3	49,2				
F1	1500	240,1	240,1	239,7	236,7	229,0	222,5	214,4	206,6	201,1	194,1	183,1	175,1	169,0	158,2	120,3	56,7				
	2500	400,1	400,1	399,5	394,5	381,7	370,9	357,1	344,3	335,3	323,2	304,9	291,6	281,8	263,9	200,5	94,6				
WC6	1500	258,6	258,6	257,4	248,7	239,8	231,8	214,4	206,6	201,1	194,1	183,1	175,1	169,0	158,2	128,6	74,5	63,5	44,0	30,5	
	2500	430,9	430,9	429,0	414,5	399,6	386,2	357,1	344,3	335,3	323,2	304,9	291,6	281,8	263,9	214,4	124,1	105,9	73,4	50,9	
F12 Cl.2	1500	258,6	257,5	252,2	240,9	231,3	224,1	214,4	206,6	201,1	194,1	183,1	175,1	169,0	139,3	106,9	68,6	60,2	44,0	30,3	
	2500	430,9	429,2	420,4	401,5	385,6	373,5	357,1	344,3	335,3	323,2	304,9	291,6	281,8	232,1	178,2	114,3	100,4	73,4	50,4	
F22 Cl.3 WC9	1500	258,6	258,6	257,6	250,8	243,4	231,8	214,4	206,6	201,1	194,1	183,1	175,1	169,0	158,2	140,9	92,2	78,2	52,6	34,4	
	2500	430,9	430,9	429,4	418,2	405,4	386,2	375,1	344,3	335,3	323,2	304,9	291,6	281,8	263,9	235,0	153,7	130,3	87,7	57,4	
F91 C12A	1500	258,6	258,6	257,6	250,8	243,4	231,8	214,4	206,6	201,1	194,1	183,1	175,1	169,0	158,2	140,9	125,5	124,9	119,7	97,5	
	2500	430,9	430,9	429,4	418,2	405,4	386,2	357,1	344,3	335,3	323,2	304,9	291,6	281,8	263,9	235,0	208,9	208,0	199,5	162,5	

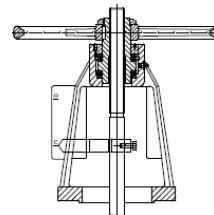
### Optional execution



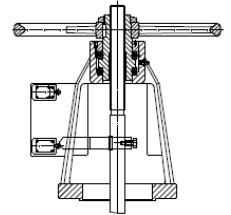
Split wedge



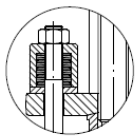
Locking device



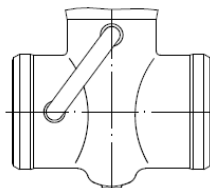
Position indicator



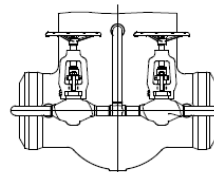
Limit switches



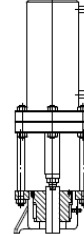
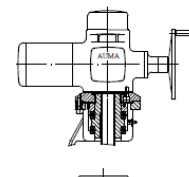
Spring loaded  
stuffing box  
(SLSB)



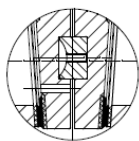
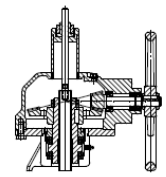
With equalizing pipe



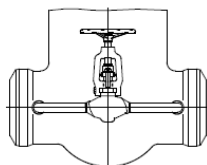
With equalizing pipe  
and bypass valves



Operated by electric, hydraulic  
actuator or by gear



With hole in wedge



With bypass valve