

## PN 16 RESILIENT SEAL GATE VALVE (FAF 6000)



### PRODUCT FEATURES

- Ductile iron body and bonnet EN GSJ 400 18 RT (GGG 40).
- Stainless steel stem.
- EPDM bonnet sealing ring and O-Ring.
- Flanged according to EN 1092-2 and ISO 7005-2.
- Valve mounting dimensions conform to EN 558-1 and DIN 3202 F4.

### APPLICATIONS

Cold and hot water systems, any fluid without acidity or alkalinity.

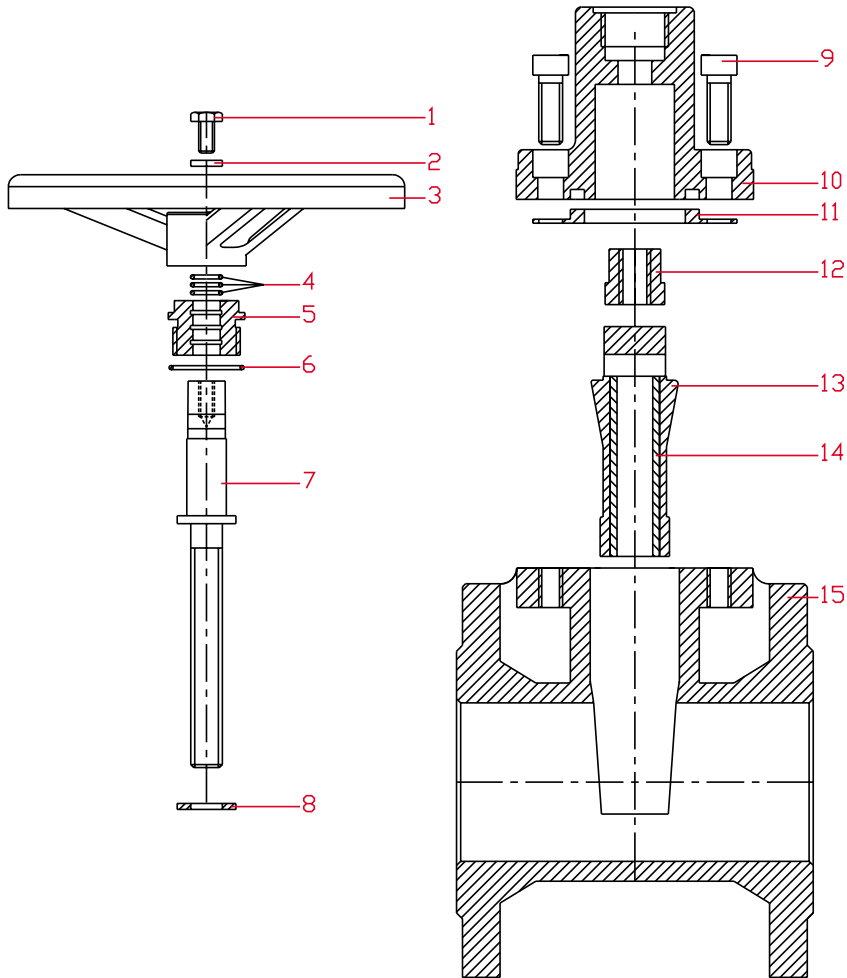
### OPERATING TEMPERATURE

Max + 130°C 266°F

Document No : KA-01  
Revision Date : 07/11/2005  
Revision No : 01

# PN 16 RESILIENT SEAL GATE VALVE (FAF 6000)

## TECHNICAL DRAWING AND MATERIALS



### PARTS AND MATERIALS

1. Bolt / DIN 933
2. Washer / Steel
3. Hand wheel
4. O-Ring / EPDM
5. Plug / Brass
6. O-Ring / EPDM
7. Stem / Stainles Steel
8. PTFE Ring / PTFE
9. Inbus bolt / DIN 912
10. Bonnet / Ductile iron
11. Bonnet sealing ring / EPDM
12. Trapeze nut / Brass
13. Wedge gasket / EPDM
14. Wedge / Ductile iron
15. Body / Ductile iron

### MATERIAL PROPERTIES

MATERIAL TYPE	MATERIAL PROPERTY
GG 25 Cast Iron	Tensile strength = 250-350 N/mm <sup>2</sup> Hardness = Max. 250 Brinell (BHN)
GGG 40 Ductile Iron	Tensile strength = 400-550 N/mm <sup>2</sup> Hardness = 135 - 185 Brinell (BHN)
Stainless Steel DIN 1-4086	C = 0.9 - 1.3    Si Max.=2    Mn Max.= 1    Cr = 27 - 30
Stainless Steel SAE-304	C max = 0.08    Si Max.=1    Mn Max.=2    Cr = 18-20    Ni = 8 - 10.5
Stainless Steel SAE-316	C max = 0.08    Si Max.=1    Mn Max.=2    Cr = 16-18    Ni = 10- 14
PTFE	Density= 2.13-2.23 gr/cm <sup>3</sup> Tensile strength = 250-300 kg/cm <sup>2</sup> Operating Temperature = -85°C / +200°C 392°F
PTFE (25 % Carbon)	Density= 2.1-2.2 gr/cm <sup>3</sup> Tensile strength = 165-170 kg/cm <sup>2</sup>
Graphitic Ring	Graphite purity = %98      Density= min. 1.6 gr/cm <sup>3</sup>
St 37	C = <= 0.2    P Max.= 0.06    S Max.= 0.05    Tensile strength = 360-440 N/mm <sup>2</sup>
Steel (Ç1030)	C = 0.30    P Max.= 0.06    S Max.= 0.06    Tensile strength = 490 N/mm <sup>2</sup>

## PN 16 GATE VALVE MAINTENANCE INSTRUCTIONS

Follow the instructions below to perform maintenance and cleaning of PN 16 Gate Valves.

### DISMOUNTING

- Make sure that there is no fluid supply on the line where the valve is detached.
- Unscrew the bolt (1) from the hand wheel (3). Remove the washer (2) and detach the hand wheel from the stem (7).
- Unscrew the plug (5) from the bonnet (10).
- Unscrew the opposite inbus bolts (9) and detach the bonnet (10) from the body (15).
- Holding the bonnet (10), remove the wedge set (13-14), the trapeze nut (12), the bonnet sealing ring (11), the stem (7) and the plug (5) sets by pulling up from the body.
- Unscrewing the wedge set, remove it from the stem.
- Detach the trapeze nut from the wedge set canal.
- Take out the stem by pulling it out of the bonnet.
- Remove the plug on the stem.
- Remove the PTFE ring (8) inside of the bonnet.
- Take out the bonnet sealing ring (11) slightly from the bonnet.

### INSPECTION AND CLEANING

- Oiling the trapeze nut (12) and the stem (7), inspect if it works easily. If it is tight, request a new one from our company.
- Check if the plug (5) and bonnet (10) threads are deformed. If there is a cut or tear on your bonnet sealing ring (11), request a new one from our company.
- If there is a cut or tear on your wedge set (13-14), request a new one from our company.
- If the PTFE ring (8) is deformed, request a new one from our company.
- Inspect the inbus bolt threads. Replace the deformed ones.
- O-rings must be replaced with new ones.

### MOUNTING

- Place the O-rings on the pulp and lightly grease over the O-rings.
- Mount the bonnet sealing ring (11) to its place on the bonnet.
- Mount the PTFE ring (8) to its place on the bonnet.
- Mount the plug (5) through the stem without damaging the O-rings (4).
- Place the stem and plug set into the bonnet. Tighten the plug and the bonnet with hand power.
- Mount the trapeze nut (12) to the canal of wedge set (13-14).
- Finish the mounting of the bonnet set by screwing the wedge set, that stem's (7) end would not come out of.
- Mount the bonnet set to the body (15) and tighten the inbus bolts (9) in the opposite pairs to eliminate the gaps.
- Tighten the plug (5) to the bonnet (10).
- Place the hand wheel (3) on the square over the stem, mounting the washer (2) to the bolt (1), tighten it to the stem and finish the valve mounting.
- Check the closed and open positions turning the hand wheel and let water flow inside the system. Inspect if there is a leak from the bonnet sealing ring or from the plug by opening and closing the valve again. If there is a leak depending on the leaking position, tighten the bonnet sealing ring or the plug.

**Note: It is highly recommended to open and close our valves once in 15 days for a longer service life after installation.**

PRESSURE / TEMPERATURE RATINGS FOR CAST IRON (GG 25) FLANGES  
(REFERENCE ISO 7005-2 TABLE 16)

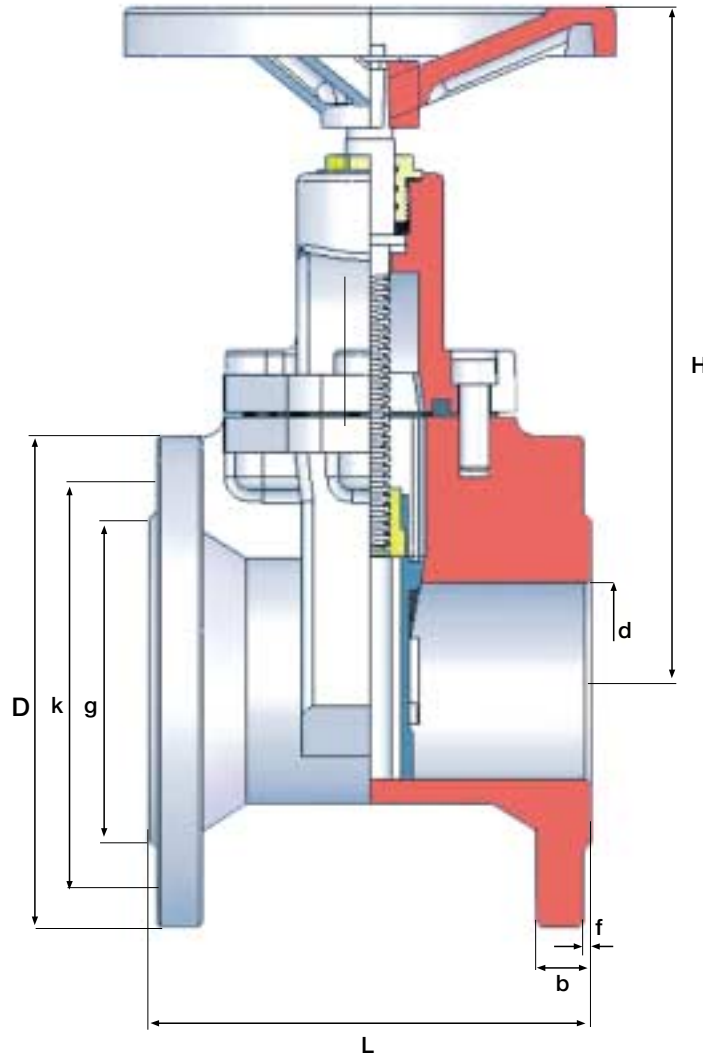
Pressure ISO PN	TEMPERATURE °C					
	-10 to 120	150	200	250	300	350
	Maximum operating pressure (bar)					
10	10	9,5	9	8	7	5,5
16	16	15,2	14,4	12,8	11,2	8,8
20	15,5	14,8	13,9	12,1	10,2	8,6
25	25	23,8	22,5	20	17,5	13,8
40	40	38	36	32	28	22
50	40,2	39	36	35	33	31

PRESSURE / TEMPERATURE RATINGS FOR DUCTILE IRON (GGG 40) FLANGES  
(REFERENCE ISO 7005-2 TABLE 17)

Pressure ISO PN	TEMPERATURE °C						
	-10 to 40	120	150	200	250	300	350
	Maximum operating pressure (bar)						
10	10	10	9,7	9,2	8,7	8	7
16	16	16	15,5	14,7	13,9	12,8	11,2
20	17,5	15,5	14,8	13,9	12,1	10,2	8,6
25	25	25	24,3	23	21,8	20	17,5
40	40	40	38,8	36,8	34,8	32	28
50	44	40,2	39	36	35	33	31

# PN 16 RESILIENT SEAL GATE VALVE (FAF 6000)

## DIMENSIONS AND PRODUCT DATA



## PN 16 RESILIENT SEAL GATE VALVE

DN	DIMENSIONS TS 3148 EN558-1			FLANGE ACC TO ISO 7005 - 2 / EN 1092-2							PRODUCT DATA	
Ømm	L	H	d	g	k	D	Delik Çapı	b	f	Number of Holes	Weight Kg	
50	150	210	50	99	125	165	19	20	3	4	11.79	
65	170	233	65	118	145	185	19	20	3	4	14.48	
80	180	253	80	132	160	200	19	22	3	8	16.17	
100	190	306	100	156	180	220	19	24	3	8	21	
125	200	364	125	184	210	250	19	26	3	8	31.25	
150	210	422	150	211	240	285	23	26	3	8	39.49	
200	230	498	200	266	295	340	23	26	3	12	59.81	