

PN 16 FLANGED GLOBE VALVE (FAF 2000)



TSEK

PG
GOST
RUSSIA

RINA **QUACER**
ISO 9001:2000

PRODUCT FEATURES

- Body, Cover and Handwheel, GG 25 Cast iron
- All internal parts (seat, disk, stem) and screw stem, SAE-304 stainless steel
- Carbon PTFE disk ring and stem ring
- Flanges are according to ISO 7005-2.
- Valve mounting dimensions conform to DIN 3202 F1.

APPLICATIONS

Steam, gas, cold, hot and pressurized hot water systems, any fluid without acidity or alkalinity, compressed air etc.

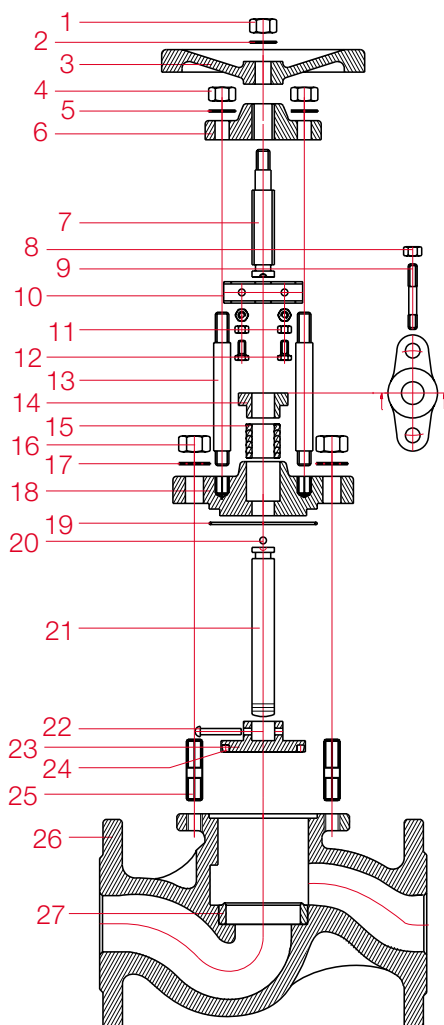
OPERATING TEMPERATURE

Max +200°C 392°F

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TECHNICAL DRAWING AND MATERIALS



PARTS AND MATERIALS

1. Nut / DIN 934
2. Washer / DIN 127
3. Handwheel / GG 25 cast iron
4. Nut / DIN 934
5. Washer / DIN 127
6. Trapeze nut / GG 25 cast iron
7. Screw stem / Stainless steel SAE-304
8. Nut / DIN 934
9. Compression stud / Steel
10. Coupling / St 37 Steel
11. Nut / DIN 934
12. Bolt / DIN 933
13. Connection stud / Steel
14. Compression Nut / GG 25 cast iron - MS 58 brass
15. Seal / Graphitic Ring
16. Nut / DIN 934
17. Washer / DIN 127
18. Cover / GG 25 cast iron
19. Seal (PTFE cord) / PTFE
20. Ball
21. Disk stem/ Stainless steel SAE-304
22. Rivet / Stainless steel SAE-304
23. Disk / Stainless steel SAE-304
24. PTFE Ring / Carbon PTFE (25% carbon)
25. Connection stud / Steel
26. Body / GG 25 cast iron
27. Seat / Stainless steel SAE-304

MATERIAL PROPERTIES

MATERIAL TYPE	MATERIAL PROPERTY
GG 25 Cast Iron	Tensile strength = 250-350 N/mm ² Hardness = Max. 250 Brinell (BHN)
GGG 40 Ductile Iron	Tensile strength = 400-550 N/mm ² 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 ³ Tensile strength = 250-300 kg/cm ² Operating Temperature = -85°C / +200°C 392° F
PTFE (25 % Carbon)	Density= 2.1-2.2 gr/cm ³ Tensile strength = 165-170 kg/cm ²
Graphitic Ring	Graphite purity = %98 Density= min.1.6 gr/cm ³
St 37	C = <= 0.2 P Max.= 0.06 S Max.= 0.05 Tensile strength = 360-440 N/mm ²
Steel (Ç1030)	C = 0.30 P Max.= 0.06 S Max.= 0.06 Tensile strength = 490 N/mm ²

BOLT DIMENSIONS

DN	BOLT		NUT QUANTITY	TIGHTENING TORQUE (Kgm)	WRENCH OPENING (mm)
	DIMENSIONS	QUANTITY			
15	M 12 X 45	4 x 2	4 x 2	7	18
20	M 12 X 45	4 x 2	4 x 2	7	18
25	M 12 X 45	4 x 2	4 x 2	7	18
32	M 16 X 50	4 x 2	4 x 2	16	24
40	M 16 X 50	4 x 2	4 x 2	16	24
50	M 16 X 55	4 x 2	4 x 2	16	24
65	M 16 X 55	4 x 2	4 x 2	16	24
80	M 16 X 60	8 x 2	8 x 2	16	24
100	M 16 X 60	8 x 2	8 x 2	16	24
125	M 16 X 65	8 x 2	8 x 2	16	24
150	M 20 X 70	8 x 2	8 x 2	22.5	30
200	M 20 X 80	12 x 2	12 x 2	22.5	30
250	M 24 X 85	12 x 2	12 x 2	38	36

Note: Dimensions according to standard flanges

PN 16 FLANGED GLOBE VALVE MAINTENANCE INSTRUCTIONS

Follow the instructions below to perform maintenance and cleaning of FAF PN 16 Flanged Globe Valves.

DISMOUNTING :

- Make sure that there is no fluid supply on the line where the Globe Valve is detached.
- Unscrew the nuts (4) on the trapeze nut (6). Remove the washers (5). Unscrew the bolts (12) and the nuts (11) on the coupling (10) and remove the coupling (10).
- Holding the handwheel (3), remove the screw stem (7), the trapeze nut and the handwheel as a whole. Avoid dropping the ball between screw stem and the disk stem.
- Unscrew the cover nuts (16) in opposite pairs, remove washers (17) and detach the cover (18) from the body (26).
- Unscrew and remove the nuts of the compression part or the compression nut (14) on the cover. Remove disk (23)-disk stem (21) group as a whole.
- Remove graphite seals (15).

INSPECTION AND CLEANING :

- Grease the trapeze nut and screw stem and test. If it does not operate easily request a new one from our company.
- If there exists deep wear and tear on the disk stem (21) request a new one from our company, if lime sediments are observed, clean with wet sandpaper (400) in water.
- If the PTFE Ring (24) of the disk is deformed request a complete disk from our company. Demolish the rivet (22) connecting the disk and the disk stem and clinch the new disk to the stem.
- If any sediment or mud is observed, clean the stainless steel seat (27) with wet sandpaper (400) in water.
- You may request a new seal (19) from our company or you may have 2 mm Klingirit gasket material cut according to the seal seat.
- Inspect the coupling (10) parts, if deformation is observed request new parts from our company.

MOUNTING :

- Place the graphite rings (15) of the disk stem in their holes on the cover. Mount the disk stem, screw the compression nut (14) or the compression part and tighten the screws in opposite pairs as the seals will hold the stem.
- Place the seal (19) on the body. Place the cover - disk stem group to the body, place the washers and screw the cover nuts in opposite pairs to eliminate the gap.
- Position the handwheel-screw stem-trapeze nut group, place the washers (5) and screw the nuts (4) in opposite pairs to eliminate the gap.
- Turn the handwheel to raise the screw stem and insert the ball between disk stem and the screw stem. Insert the coupling parts to the canals on the stems and make the mounting by screwing the bolts (12) and nuts (12).
- Turn the handwheel to check open and closed positions. Feed the line with fluid and inspect if there is any leakage from disk stem cover seals. If leakage is noted, tighten the compression nut or the nuts of the compression part until leakage subsides (Avoid locking the disk stem).

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)

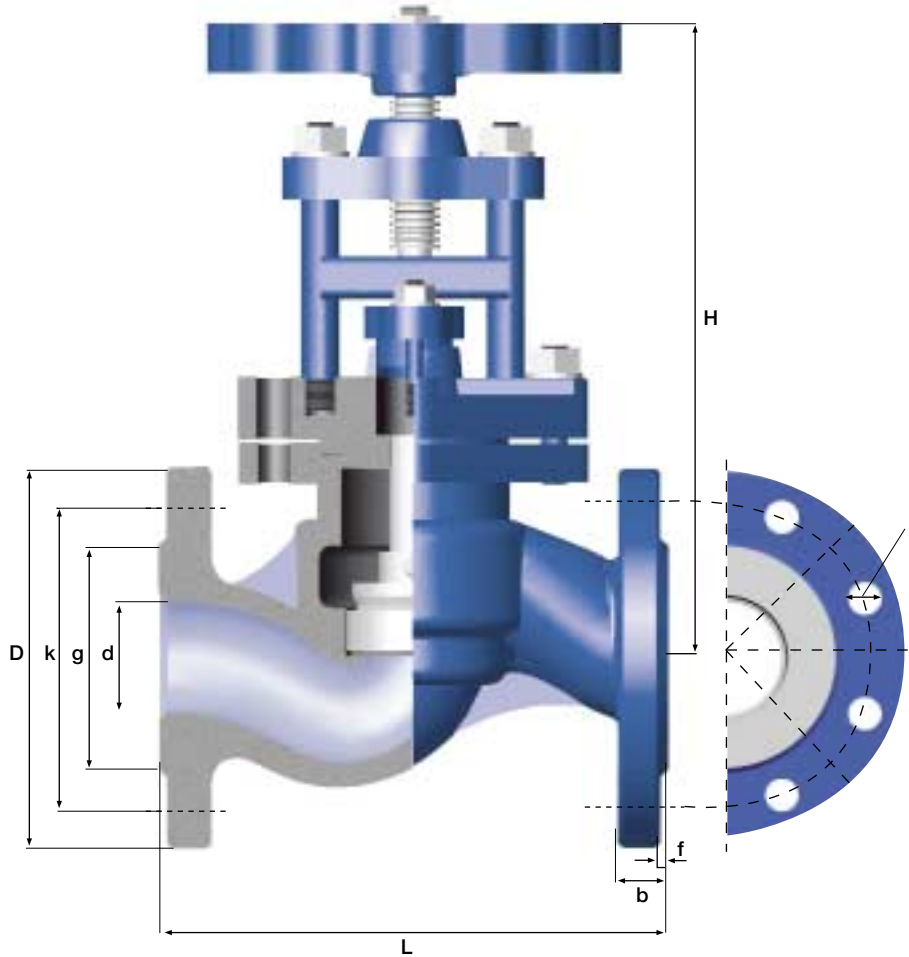
Pressure ISO PN	TEMPERATURE °C					
	-10 to 120	150	200	250	300	350
	Maximum operating pressure (bar)					
10	10	9,5	9	8	7	5,5
16	16	15,2	14,4	12,8	11,2	8,8
20	15,5	14,8	13,9	12,1	10,2	8,6
25	25	23,8	22,5	20	17,5	13,8
40	40	38	36	32	28	22
50	40,2	39	36	35	33	31

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 FLANGED GLOBE VALVE (FAF 2000)

DIMENSIONS AND PRODUCT DATA



FAF 2000
PN 16 FLANGED GLOBE VALVE



DN	TS 3148 DIMENSIONS			FLANGE ACC. TO ISO 7005-2							PRODUCT DATA	
Ømm	H	L	d	g	k	D	I	b	f	Number of Holes	KVS m³/h	Weight Kg
15	220	130	15	46	65	95	14	14	2	4	5	3,76
20	220	150	20	56	75	105	14	16	2	4	8	4,61
25	230	160	25	65	85	115	14	16	3	4	11	6,13
32	260	180	32	76	100	140	19	18	3	4	18	8,58
40	270	200	40	84	110	150	19	18	3	4	28	11,10
50	290	230	50	99	125	165	19	20	3	4	46,3	15,21
65	340	290	65	118	145	185	19	20	3	4	72	19,62
80	400	310	80	132	160	200	19	22	3	8	126	26,38
100	450	350	100	156	180	220	19	24	3	8	170	37,64
125	500	400	125	184	210	250	19	26	3	8	267	49,77
150	550	480	150	211	240	285	23	26	3	8	380	77,48
200	670	600	200	266	295	340	23	30	3	12	683	138,80
250	810	730	250	319	355	405	28	32	3	12	1057	221,32