

Globe valve with bellows TYPE AV05 / AV06



Description:

Globe valves for a controlled opening and closing of a pipeline system. With optional regulation plug to control the flow rate.

Product features:

- suitable for neutral and non neutral **gaseous & liquid media and steam**
- largely maintenance-free
- with bellows
- installation in any position, spindle preferably in vertical position

Connection:

DN15, DN20, DN25, DN32, DN40, DN50, DN65, DN80, DN100, DN125, DN150, DN200, DN250

Temperature:

-10°C up to 400°C
– depending on design

Pressure:

up to 40.0 bar
– depending on design

Type AV05 / AV06

Design:

Globe valve with bellows in straight through design

Type:

AV05 Cast steel

AV06 Stainless steel

Material body:

Cast steel 1.0619N

Stainless steel 1.4408 / AISI CF-8M

Material stem:

Stainless steel 1.4021 / AISI 420

Stainless steel 1.4571 / 316TI | Stainless steel 1.4401 / 316TI*

Stem:

external & rising

external & rising

Material yoke:

Cast steel 1.0619N

Stainless steel 1.4408 / AISI CF-8M

Nominal pressure:

PN16 / PN40

PN16 / PN40

Material disc:

Cast steel 1.0619N

Stainless steel 1.4571 / AISI 316 TI

Material bellows:

Stainless steel 1.4401 / AISI 316

Stainless steel 1.4401 / AISI 316

Material hand wheel:

Carbon steel 1.0036

Carbon steel 1.0036

Hand wheel:

Not rising

Not rising

Gasket:

Graphite

Graphite

*see material tables for AV06

Notes:

Cast steel version AV05 with protective coating RAL5015, 40-60 µm, max. 120°C corresponds to corrosivity category C1 according to DIN EN ISO 12944 Part 2 (protection duration „low“)

Valve according to PED 2014/68/EU

TA-Luft 2021 conform

AD2000 A4

Final testing according to DIN EN 12266

Shell pressure test water PN*1,5; Closure pressure test water PN*1,1

Globe valve according to DIN EN 13709:2010-10

Face-to-face dimension:

According to DIN EN 558-1 basic series 1

Flange dimension:

According to DIN EN 1092-1

Flange face finish:

According to DIN EN 1092-1 Type B

Pressure-temperature-ratings:

Intermediate values for max. permissible operational pressures can be determined by linear interpolation for the given temperature / pressure chart.

acc. to DIN EN 1092-1		-10°C	20°C	120°C	150°C	200°C	250°C	300°C	350°C	400°C
Cast steel 1.0619N	16 bar	16	16	16	15,3	14	13	11	10,2	9,5
Cast steel 1.0619N	40 bar	40	40	40	38,1	35	32	28	25,7	23,8

acc. to DIN EN 1092-1		-10°C	20°C	120°C	150°C	200°C	250°C	300°C	350°C	400°C
Stainless steel 1.4408	16 bar	16	16	16	14,5	13,4	12,7	11,8	11,4	10,9
Stainless steel 1.4408	40 bar	40	40	40	36,3	33,7	31,8	29,7	28,5	27,4

Difference pressures:

Nieruf-globe valves must be equipped with a pressure relief plug* when the pressure differences, listed below, are exceeded in the closed state. The valves must be installed in the pipeline in such a way that the pressure of the medium acts on the taper.

DN	65	80	100	125	150	200	250	300
Pressure difference (bar)	On request	On request	On request	On request	On request	On request	On request	On request

*Pressure relief plug already included for nominal diameters from DN125. For AV06 with nominal pressure PN16 the pressure relief plug is included from nominal diameter DN200.

Leakage rate:

Test with 1,1 times nominal pressure with water according to DIN EN 12266-1, testing of the seat tightness

Type / Diameter	Leakage rate
AV05 & AV06 / up to DN150	A
AV05 & AV06 / from DN 200	B

Materials:

Standard version

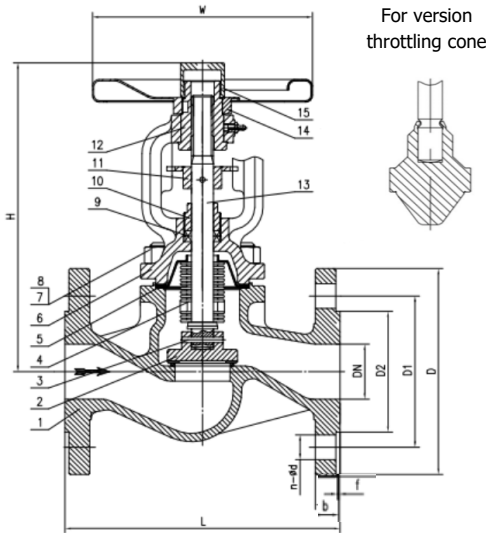


Illustration applies for AV05:
PN16 from DN65 to DN100
PN40 from DN15 to DN100

Illustration applies for AV06:
PN16 from DN65 to DN150
PN40 from DN15 to DN100

Pos.	Designation	Material AV05 Cast steel 1.0619N	Material AV06 Stainless steel 1.4408
1	Body	GP240GH+N / 1.0619N	GX5CrNiMo1991102 / 1.4408
1.1	Body seat	Stellite	Stellite
2	Disc	GP240GH+N / 1.0619N	X6CrNiMoTi17-12-2 / 1.4571
2.1	Disc seat	13 Cr	X6CrNiMoTi17-12-2 / 1.4571
3	Lock bolt	13 Cr	X5CrNiMo17-12-2 / 1.4401
4	Bellows	X5CrNiMo 17-12-2 / 1.4401	X5CrNiMo17-12-2 / 1.4401
5	Gasket	Graphite 1.0036	Graphite 1.0036
6	Yoke	GP240GH+N / 1.0619N	GX5CrNiMo1991102 / 1.4408
7	Stud bolt	25CrMo4 / 1.7218	A4-70
8	Hexagon nut	25CrMo4 / 1.7218	A4
9	Packing	Graphite 1.0036	Graphit 1.0036
10	Glad nut	Carbon steel / 1.0036	X5CrNiMo17-12-2 / 1.4401
11	Guide piece	13 Cr	X5CrNiMo17-12-2 / 1.4401
12	Threaded bush	GJS-400-15 / 0.7040	GJS-400-15 / 0.7040
13	Stem	X20Cr13 / 1.4021	X6CrNiMoTi17-12-2 / 1.4571
14	Handwheel	Carbon steel / 1.0036	Carbon steel / 1.0036
15	Handwheel nut	Carbon steel / 1.0036	Carbon steel / 1.0036

Standard version

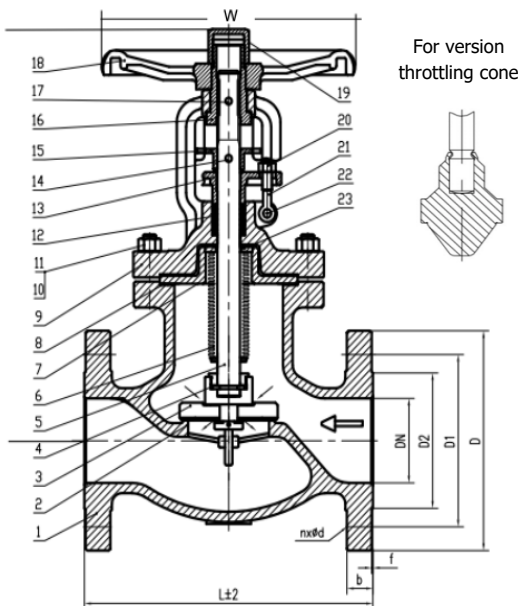


Illustration applies for AV05:
PN16 from DN125 to DN250
PN40 from DN125 to DN250

Illustration applies for AV06:
PN16 from DN200 to DN250
PN40 from DN125 to DN250

Pos.	Designation	Material AV05 Cast steel 1.0619N	Material AV06 Stainless steel 1.4408
1	Body	GP240GH+N / 1.0619N	GX 5CrNiMo191102 / 1.4408
2	Body seat	Stellite	Stellit
3	Disc	GP240GH+N / 1.0619N	X6CrNiMoTi17-12-2 / 1.4571
3.1	Disc seat	13 Cr	X6CrNiMoTi17-12-2 / 1.4571
4	Lock bolt	13 Cr	X5CrNiMo17-12-2 / 1.4401
5	Stem	X20Cr13 / 1.4021	X5CrNiMo17-12-2 / 1.4401
6	Bellows	X5CrNiMo 17-12-2 / 1.4401	X5CrNiMo 17-12-2 / 1.4401
7	Seal adapter	X20Cr13 / 1.4021	GX5CrNiMo191102 / 1.4408
8	Gasket	Graphite	Graphite
9	Yoke	GP240GH+N / 1.0619N	GX5CrNiMo191102 / 1.4408
10	Stud bolt	25CrMo4 / 1.7218	A4-70
11	Hexagon nut	25CrMo4 / 1.7218	A4
12	Packing	Graphite	X5CrNiMo 17-12-2 / 1.4401
13	Gland flange	GP240GH+N / 1.0619N	GX5CrNiMo191102 / 1.4408
14	Guide piece	13 Cr	PN16: X6CrNiMoTi17-12-2 / 1.4571 PN40: X5CrNiMo 17-12-2 / 1.4401
15	Indicator	Carbon steel / 1.0036	PN16: Carbon steel / 1.0036 PN40: Stainless steel
16	Threaded bush	GJS-400-15 / 0.7040	PN16: Carbon Stahl / 1.0036 PN40: GJS-400-15 / 0.7040
17	Grease nipple	Carbon steel / 1.0036	Stainless steel
18	Handwheel	Carbon steel / 1.0036	Carbon steel / 1.0036
19	Cover	Carbon steel / 1.0036	Carbon steel / 1.0036
20	Hinged screw	25CrMo4 / 1.7218	Stainless steel
21	Nut	25CrMo4 / 1.7218	Stainless steel
22	Lock bolt	Stainless steel	Stainless steel
23	Weld-on piece	X20Cr13 / 1.4021	X5CrNiMo 17-12-2 / 1.4401

Dimensions:

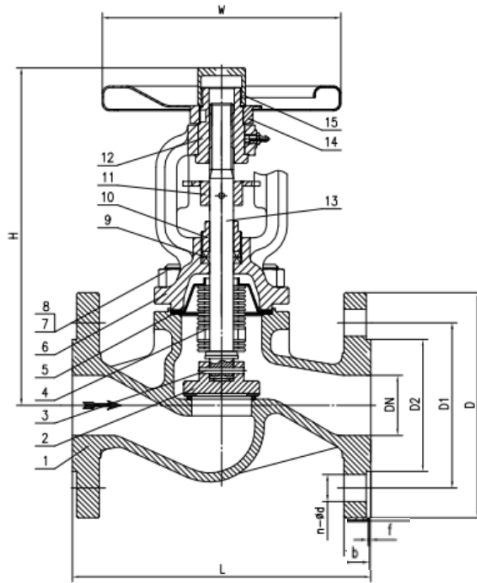


Illustration applies for AV05:
PN16 from DN65 to DN100
PN40 from DN15 to DN100

Illustration applies for AV06:
PN16 from DN65 to DN150
PN40 from DN15 to DN100

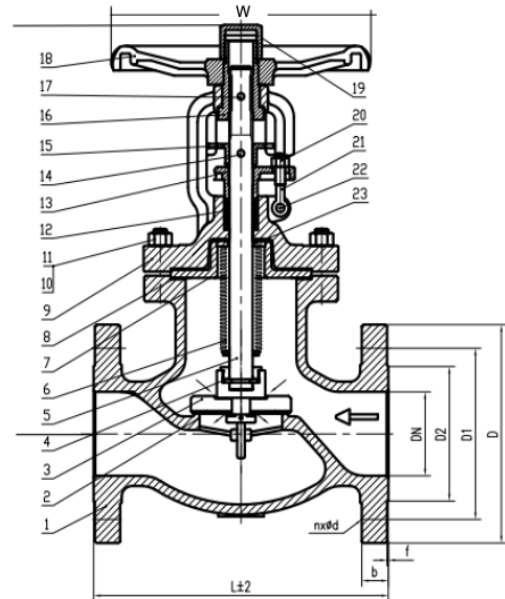


Illustration applies for AV05:
PN16 from DN125 to DN250
PN40 from DN125 to DN250

Illustration applies for AV06:
PN16 from DN200 to DN250
PN40 from DN125 to DN250

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250
PN16	W	-	-	-	-	-	-	225	250	300	350	400	500	500
	L	-	-	-	-	-	-	290	310	350	400	480	600	730
	H	-	-	-	-	-	-	300	335	370	390	400	495	660
	D	-	-	-	-	-	-	185	200	220	250	285	340	405
	D1	-	-	-	-	-	-	145	160	180	210	240	295	355
	D2	-	-	-	-	-	-	122	138	158	188	212	268	320
	b	-	-	-	-	-	-	18	20	20	22	22	24	26
	f	-	-	-	-	-	-	3	3	3	3	3	3	3
	n x Ød	-	-	-	-	-	-	4/8"x18	8x18	8x18	8x18	8x22	12x22	12x26
	Nm	-	-	-	-	-	-	55	70	90	110	135	180	270
	Stroke	-	-	-	-	-	-	4,0	4,0	8,0	7,0	8,0	12,0	16,0
	Weight	-	-	-	-	-	-	19,0	28,0	42,0	55,0	82,0	125,0	265,0
PN40	W	140	140	160	160	180	180	225	250	300	350	400	500	500
	L	130	150	160	180	200	230	290	310	350	400	480	600	730
	H	185	185	220	220	235	255	300	335	370	390	400	495	660
	D	95	105	115	140	150	165	185	200	235	270	300	375	450
	D1	65	75	85	100	110	125	145	160	190	220	250	320	385
	D2	45	58	68	78	88	102	122	138	162	188	218	285	345
	b	16	18	18	18	18	20	22	24	24	26	28	34	38
	f	2	2	2	2	3	3	3	3	3	3	3	3	3
	n x Ød	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x30	12x33
	Nm	10	13	16	22	30	40	55	70	90	110	135	180	270
	Stroke	6,0	6,0	8,0	8,0	13,0	13,0	16,0	20,0	25,0	32,0	40,0	50,0	70,0
	Weight	5,0	6,0	7,0	8,0	10,0	13,0	19,0	25,0	43,0	62,0	92,0	148,0	210,0

*Optionally available with 8-hole flange bore according to DIN EN 1092-1/-2 instead of 4-hole bore

Kvs-values (m³/h):

DN	Kvs-values (standard cone)
15	7,7
20	7,9
25	7,9
32	11,8
40	19,8
50	34,4
65	65,3
80	105,0
100	171,0
125	268,0
150	378,0
200	634,0
250	943,0

Options (on request):

- Chainwheel
- Position indicator
- Lock screw
- Packing and gasket PTFE
- Sealing water connection

Article number:

Type	Pressure stage	Version	Connection	Size
AV05 – Cast steel AV06 – Stainless steel	1 – PN40	1 – Standard 2 – Throttling cone*	00 – Flange	03 – DN15 04 – DN20 05 – DN25 06 – DN32 07 – DN40 08 – DN50
Type	Pressure stage	Version	Connection	Size
AV05 – Cast steel AV06 – Stainless steel	0 – PN16 1 – PN40	1 – Standard 2 – Throttling cone*	00 – Flange	09 – DN65 10 – DN80** 11 – DN100 12 – DN125 13 – DN150 14 – DN200 15 – DN250

Example No. AV05110008:

AV05	1	1	00	08
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Globe valve made of cast steel

Pressure stage: PN40

Version: Standard

Connection: Flange

Size: DN50

*version with throttling cone only available to diameter DN200

**cast steel version only available in PN40

Image similar, subject change without notice.