

GEMÜ WG 600

Angle gauge for diaphragm

In specialist literature and documents from plant constructors and valve manufacturers the term „self-draining“ is often used. It is a fictitious term for the independent emptying of a vessel and/or a pipe section through an opened valve. Depending on a variety of factors it is not normally possible to expect full drainage without leaving residue even with vertical piping. Therefore the term „self-draining“ is often used incorrectly. The term „free outlet“, „unhindered outlet“ or „optimum draining“ is more realistic. At GEMÜ we use the term optimum draining.

Optimum drainability of a valve depends on several factors:

- Design of the internal geometry of the valve body
- Different pipe standards (ISO, DIN, SMS, ASME BPE, JIS etc.), as they have different inside diameters at the same nominal size
- Surface finish (Please note that every valve is hand polished which may result in slight deviations)
- Installation position in the pipeline with regard to horizontal rotation and vertical inclination
- Viscosity and adhesive qualities of the medium/media

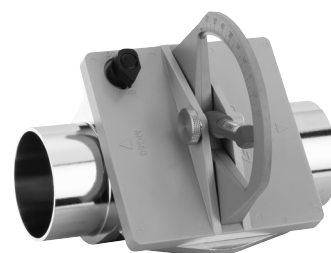
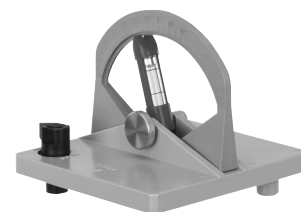
In order to meet customers' requirements GEMÜ produces valves for Pharma, Food & Biotech applications locally at manufacturing sites in Europe and the USA. This may result in different angles of rotation in a few cases.

The draining angles mentioned in this data sheet are valid for valve bodies from the production in Europe.

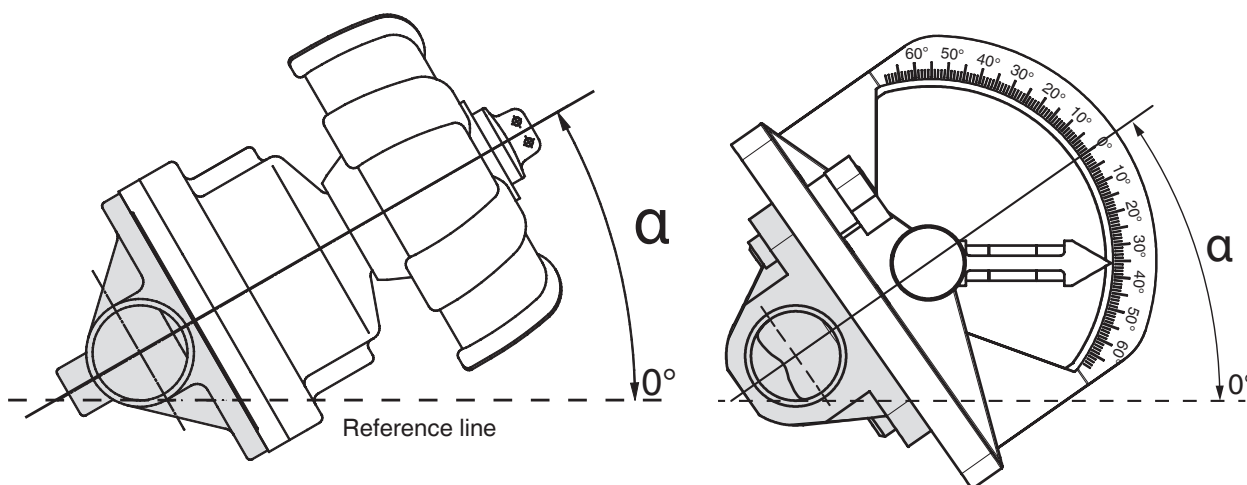
Please contact your local supplier for further information.

The values of the draining angles are only provided as a guide without tolerances.

Drainability in a process system is the responsibility of the system designer, system constructor and end user due to factors described above.



Calculated angle of rotation for installation in horizontal pipe systems



GEMÜ has calculated draining angles for the various nominal sizes and pipe standards in order to facilitate installation of valves for optimised draining. The draining angles α mentioned are valid for installation in horizontal pipe systems. Please note the drawing. (Attention: Other manufacturers quote the angle using a horizontal weirplate from the vertical centreline downwards). Angle of rotation for block material (e.g. made of special material) on request.

Technical Data

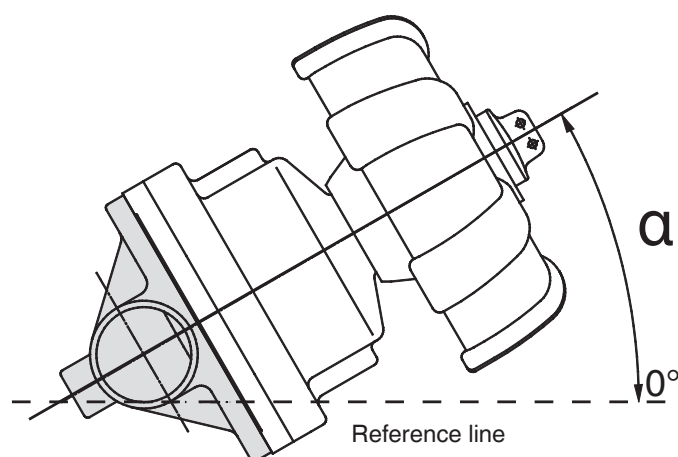
DN	Diaphragm size	Pipe dimension [mm]	Angle α [°]	
			Investment cast body	Forged body
Butt weld spigots DIN (Connection code 0)				
4	8	6.0 x 1.0	37	35
6		8.0 x 1.0	32	30
8		10.0 x 1.0	27	25
15	10	18.0 x 1.5	18	14
15	25	18.0 x 1.5	44	34
20		22.0 x 1.5	35	30
25		28.0 x 1.5	25	23
32	40	34.0 x 1.5	28	25
40		40.0 x 1.5	22	20
50	50	52.0 x 1.5	21	19
Butt weld spigots DIN 11850, series 1 (Connection code 16)				
10	8	12.0 x 1.0	22	19
10	10	12.0 x 1.0	28	24
15		18.0 x 1.0	17	12
15	25	18.0 x 1.0	43	33
20		22.0 x 1.0	34	28
25		28.0 x 1.0	24	21
32	40	34.0 x 1.0	28	25
40		40.0 x 1.0	21	19
50	50	52.0 x 1.0	21	18
Butt weld spigots DIN 11850, series 2 (Connection code 17)				
10	8	13.0 x 1.5	22	19
10	10	13.0 x 1.5	28	24
15		13.0 x 1.5	17	12
15	25	13.0 x 1.5	43	33
20		23.0 x 1.5	34	28
25		29.0 x 1.5	24	21
32	40	35.0 x 1.5	28	25
40		41.0 x 1.5	21	19
50	50	53.0 x 1.5	21	18
65	80	70.0 x 2.0	-	18
80		85.0 x 2.0	-	12
100	100	104.0 x 2.0	-	14
Butt weld spigots DIN 11850, series 3 (Connection code 18)				
10	8	14.0 x 2.0	22	19
10	10	14.0 x 2.0	28	24
15		20.0 x 2.0	17	12
15	25	20.0 x 2.0	43	33
20		24.0 x 2.0	34	28
25		30.0 x 2.0	24	21
32	40	36.0 x 2.0	28	25
40		42.0 x 2.0	21	19
50	50	54.0 x 2.0	21	18

DN	Diaphragm size	Pipe dimension [mm]	Angle α [°]	
			Investment cast body	Forged body
Butt weld spigots DIN 11866, series A (Connection code 1A)				
6	8	8.0 x 1.0	-	30
8		10.0 x 1.0	-	25
10	10	13.0 x 1.5	-	24
15		19.0 x 1.5	-	12
15	25	19.0 x 1.5	-	33
20		23.0 x 1.5	-	28
25		29.0 x 1.5	-	21
32	40	35.0 x 1.5	-	25
40		41.0 x 1.5	-	19
50	50	53.0 x 1.5	-	18
65	80	70.0 x 2.0	-	18
80		85.0 x 2.0	-	12
100	100	104.0 x 2.0	-	14
Butt weld spigots DIN 11866, series B (Connection code 1B)				
6	8	10.2 x 1.6	-	28
8		13.5 x 1.6	-	19
10	10	17.2 x 1.6	-	16
15		21.3 x 1.6	-	7
15	25	21.3 x 1.6	-	31
20		26.9 x 1.6	-	24
25		33.7 x 2.0	-	17
32	40	42.4 x 2.0	-	19
40		48.3 x 2.0	-	14
50	50	60.3 x 2.0	-	13
65	80	76.1 x 2.0	-	16
80		88.9 x 2.3	-	11
100	100	114.3 x 2.3	-	11
Butt weld spigots JIS-G 3447 (Connection code 35)				
25	25	25.4 x 1.2	27	25
32	40	31.8 x 1.2	30	27
40		38.1 x 1.2	23	21
50	50	50.8 x 1.5	22	20
65	80	63.5 x 2.0	-	21
80		76.3 x 2.0	-	16
100	100	101.6 x 2.0	-	15
Butt weld spigots JIS-G 3459 (Connection code 36)				
6	8	10.5 x 1.2	-	25
8		13.8 x 1.65	-	18
10	10	17.3 x 1.65	-	16
15		21.7 x 2.1	-	9
15	25	21.7 x 2.1	-	31
20		27.2 x 2.1	-	25
25		34.0. x 2.8	-	18
32	40	42.7 x 2.8	-	20
40		48.6 x 2.8	-	15
50	50	60.5 x 2.8	-	14
65	80	76.3 x 3.0	-	17
80		89.1 x 3.0	-	11
100	100	114.3 x 3.0	-	12

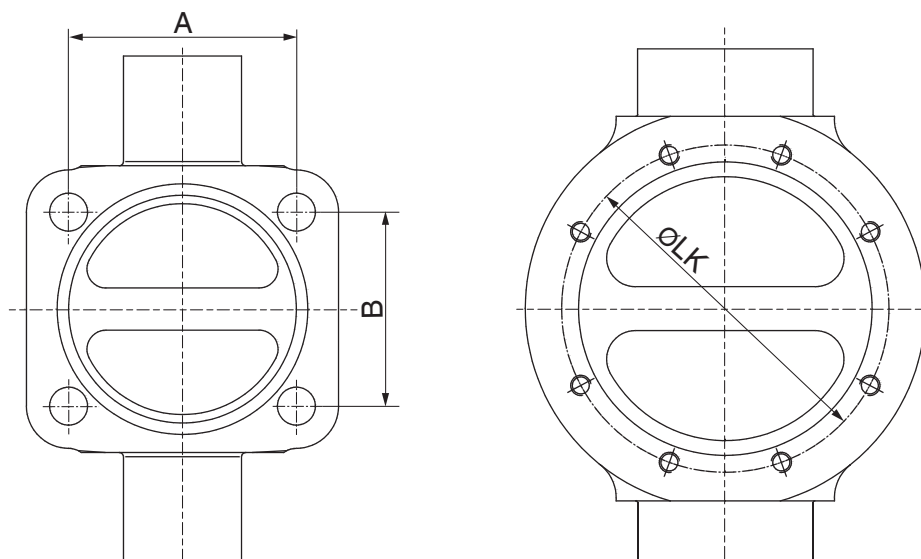
Technical Data

DN	Diaphragm size	Pipe dimension [mm]	Angle α [°]	
			Investment cast body	Forged body
Butt weld spigots SMS 3008 (Connection code 37)				
25	25	25.0 x 1.2	27	25
32	40	33.7 x 1.2	28	25
40		38.0 x 1.2	23	21
50	50	51.0 x 1.2	22	19
65	80	63.5 x 1.6	-	21
80		76.1 x 1.6	-	16
100	100	101.6 x 2.0	-	15
Butt weld spigots SMS 4825 (Connection code 55)				
8	8	6.35 x 1.2	37	35
10		9.53 x 1.2	29	27
10	10	9.63 x 1.2	-	29
15	8	12.7 x 1.2	21	19
15	10	12.7 x 1.2	27	23
15	25	12.7 x 1.2	-	39
20	10	19.05 x 1.2	15	11
20	25	19.05 x 1.2	38	32
Butt weld spigots ASME BPE (Connection code 59)				
8	8	6.35 x 0.89	36	34
10		9.53 x 0.89	28	26
15		12.7 x 1.65	23	21
15	10	12.7 x 1.65	-	25
15	25	12.7 x 1.65	-	40
20	10	19.05 x 1.65	17	13
20	25	19.05 x 1.65	39	33
25		25.4 x 1.65	28	26
40	40	38.1 x 1.65	24	22
50	50	50.8 x 1.65	22	20
65	80	63.5 x 1.65	-	21
80		76.2 x 1.65	-	16
100	100	101.6 x 2.11	-	15
Butt weld spigots EN ISO 1127 (Connection code 60)				
6	8	10.2 x 1.6	30	28
8		13.5 x 1.6	21	19
10	10	17.2 x 1.6	20	16
15		21.3 x 1.6	12	7
15	25	21.3 x 1.6	40	31
20		26.9 x 1.6	29	24
25		33.7 x 2.0	19	17
32	40	42.4 x 2.0	22	19
40		48.3 x 2.0	16	14
50	50	60.3 x 2.0	16	13
65	80	76.1 x 2.0	-	16
80		88.9 x 2.3	-	11
100	100	114.3 x 2.3	-	11

DN	Diaphragm size	Pipe dimension [mm]	Angle α [°]	
			Investment cast body	Forged body
Butt weld spigots ANSI/ASME B36.19M, Schedule 10s (Connection code 63)				
6	8	10.3 x 1.24	-	25
8		13.7 x 1.65	-	18
10	10	17.1 x 1.65	-	17
15		21.3 x 2.11	-	10
15	25	21.3 x 2.11	-	32
20		26.7 x 2.11	-	26
25		33.4 x 2.77	-	19
32	40	42.2 x 2.77	-	21
40		48.3 x 2.77	-	15
50	50	60.3 x 2.77	-	15
65	80	73.0 x 3.05	-	18
80		88.9 x 3.05	-	11
100	100	114.3 x 3.05	-	12
Butt weld spigots ANSI/ASME B36.19M, Schedule 40s (Connection code 65)				
6	8	10.3 x 1.73	-	28
8		13.7 x 2.24	-	22
10	10	17.1 x 2.31	-	19
15		21.3 x 2.77	-	12
15	25	21.3 x 2.77	-	33
20		26.7 x 2.87	-	27
25		33.4 x 3.38	-	21
32	40	42.2 x 3.56	-	22
40		48.3 x 3.68	-	17
50	50	60.3 x 3.91	-	16
65	80	73.0 x 5.16	-	20
80		88.9 x 5.49	-	13
100	100	114.3 x 6.02	-	14



Diaphragm size



Diaphragm size	Valve types	A	B	Ø LK
8	601 / 602 / 605 / 650	22	22	-
10	611 / 612 / 615 / 625 / 650 / 653	39	44	-
25	671 / 673 / 687 / 695 / 650 / 653	54	46	-
40	671 / 673 / 687 / 695 / 650 / 653	70	65	-
50	671 / 673 / 687 / 695 / 650 / 653	82	70	-
80	671 / 687 / 653	127	114	-
100	671 / 687 / 653	-	-	194

Order data

Please use the article numbers listed below when ordering:

Angle gauge for diaphragm size	Article number
MG 8	88278996
MG 10	88277372
MG 25	88277373
MG 40	88277374
MG 50	88277375
MG 80	88277376
MG 100	88379424

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For further accessories and other products, please see our Product Range catalogue and Price List.
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