

Angle Seat Globe Valve, Metal Aseptic

Construction

The GEMÜ 505 manually operated 2/2-way valve has a high temperature rated plastic handwheel and is designed for pure steam applications. The valve has a PTFE seat for tight shut off and the valve spindle is sealed by a stainless steel bellows.

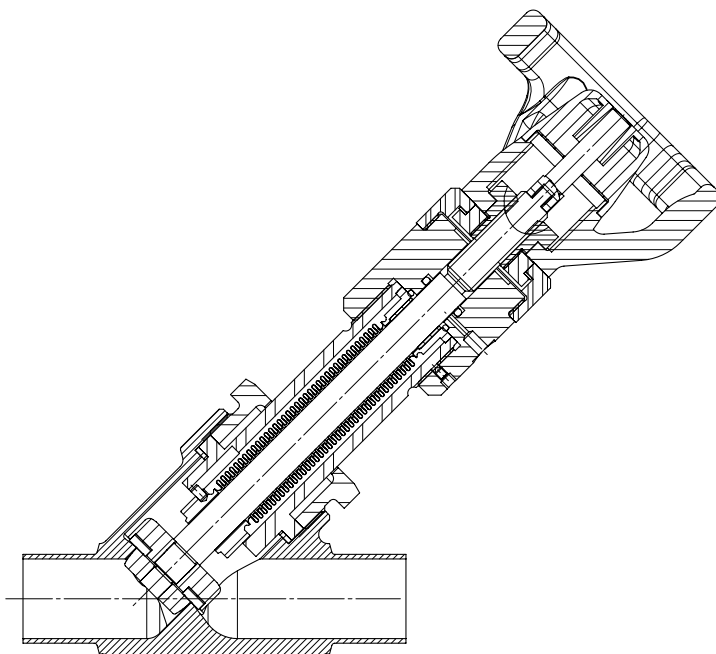
Features

- Suitable for pure steam and gaseous media
- For materials and connections see the following pages
- Internal surface of valve body down to Ra 15 µinch mechanically polished, optionally electropolished

Advantages

- Free from non-ferrous metals
- Stainless steel bellows seal
- Welded valve plug
- Fixed seat plug (without threads)
- Fast operator change possible
- Optical position indicator integrated as standard
- Traceability of all wetted parts
- Suitable for contact with food according to Regulation (EC) No. 1935/2004
- Suitable for vacuum up to 0.59 inHg (a) as standard

Sectional drawing



Technical data

Working medium

Pure steam and gaseous media which have no negative impact on the physical and chemical properties of the body and seal material.

Max. perm. pressure of working medium see table

Media temperature

Butt weld spigot connections 14 to 365 °F

Clamp connections 14 to 284 °F

Other versions for lower/higher temperatures on request

Ambient conditions

Max. ambient temperature 14 to 140 °F

Maximum permissible seat leakage rate

Seat seal	Standard	Test procedure	Leakage rate	Test medium
PTFE	DIN EN 12266-1	P12	A	air

Bonnet size	Nominal size	Max. operating pressure	Cv value	Bonnet weight
	DN	[psi]	[gpm]	[lbs]
1	8	150	2.1	1.3
	10		4.1	1.3
	15		4.7	1.3
	20		9.4	1.3
2	25	150	19.3	2.9
	32		25.7	3.3
3	40	150	32.8	3.5
	50		37.4	5.3
	65		64.4	6.6
	80		77.2	7.7

Cv values determined in accordance with DIN EN 60534. The Cv value specifications refer to the largest actuator for the respective nominal size. The Cv values for other product configurations (e.g. other connection types or body materials) may differ.

Order data

Body configuration	Code
2/2-way body	D

Nominal size		Code
DN 8	NPS 1/4"	8
DN 10	NPS 3/8"	10
DN 15	NPS 1/2"	15
DN 20	NPS 3/4"	20
DN 25	NPS 1"	25
DN 32	NPS 1 1/4"	32
DN 40	NPS 1 1/2"	40
DN 50	NPS 2"	50
DN 65	NPS 2 1/2"	65
DN 80	NPS 3"	80

Connection	Code
Butt weld spigots	
Spigots EN 10357 series A (formerly DIN 11850 series 2) / DIN 11866 series A	17
Spigots ASME BPE	59
Spigots ISO 1127 / EN 10357 series C / DIN 11866 series B	60
Clamp connections	
Clamps DIN 32676 series B for pipe EN ISO 1127, length EN 558, series 1	82
Clamps DIN 32676 series A for pipe DIN 11850, length EN 558, series 1	86
Clamps ASME BPE for pipe ASME BPE, length EN 558, series 1	88

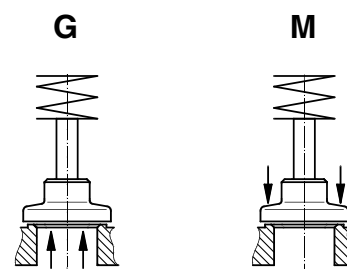
Valve body material	Code
1.4435 (316 L), block material	41
1.4435, investment casting Material equivalency 316 L	C2
A surface finish from the order code table "K number" must be specified for valve body.	

Seat seal	Code
PTFE	5P

Control function	Code
Manually operated	0

Bonnet size	Code
DN 8 - 20	1
DN 25 - 32	2
DN 40 - 80	3

Flow direction	Code
Under the seat	G
Over the seat (up to DN 50)	M



Handwheel material	Code
Plastic	P

Version	Code
Surface finish	
Ra ≤ 0,6 µm (25 µinch) for process contact surfaces, in accordance with ASME BPE SF2 + SF3, mechanically polished internal	1903
Ra ≤ 0,8 µm (30 µinch) for process contact surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1904
Ra ≤ 0,4 µm (15 µinch) for process contact surfaces, in accordance with DIN 11866 H4, ASME BPE SF1, mechanically polished internal	1909
Ra ≤ 0,6 µm for process contact surfaces, in accordance with ASME BPE SF6, electropolished internal/external	1953
Ra ≤ 0,8 µm for process contact surfaces, in accordance with DIN 11866 HE3, electropolished internal/external	1954
Ra ≤ 0,4 µm for process contact surfaces, in accordance with DIN 11866 HE4/ASME BPE SF5, electropolished internal/external	1959

Special version	Code
Stainless steel bellows seal	F

Order data

Order example	505	25	D	17	C2	5P	0	2	G	P	1903	F
Type	505											
Nominal size		25										
Body configuration (code)			D									
Connection (code)				17								
Valve body material (code)					C2							
Seat seal (code)						5P						
Control function (code)							0					
Bonnet size (code)								2				
Flow direction (code)									G			
Handwheel material (code)										P		
Version (code)											1903	
Special version (code)												F

Version for food contact

For food contact, the product must be ordered with the following ordering options:

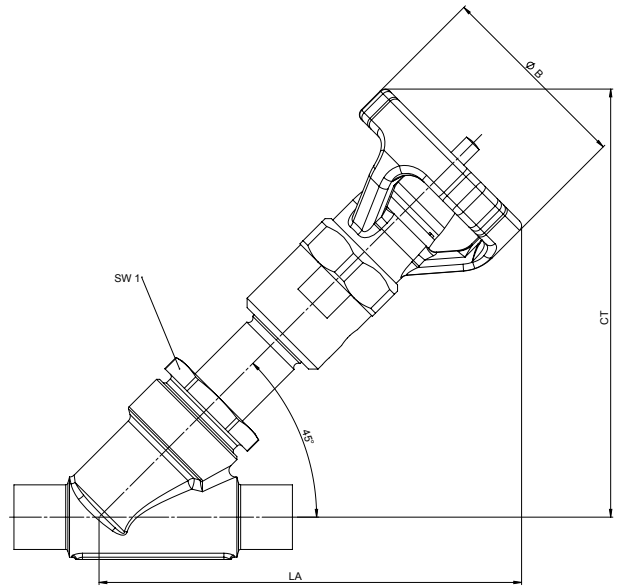
Seat seal code 5P

Valve body material code 41, C2

Dimensions

Bonnet dimensions / Installation dimensions

Bonnet size	DN	SW1 [mm]	CT/LA [in]	ø B [in]
1	8	36	6.34	2.48
	10	36	6.34	2.48
	15	36	6.34	2.48
	20	41	6.34	2.48
2	25	46	7.72	3.62
	32	55	7.76	3.62
3	40	60	10.43	4.49
	50	55	10.55	4.49
	65	75	10.55	4.49
	80	75	10.75	4.49



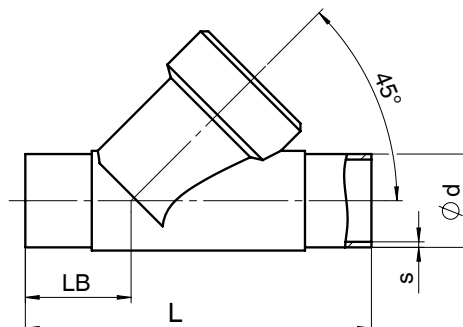
Body dimensions [inch]

Butt weld spigots, connection code 17, 59, 60
Valve body material: 1.4435 (code 41, C2)

			Connection code					
			17		60		59	
DN	L	LB	ø d	s	ø d	s	ø d	s
8	4.13*	1.40*	0.394	0.039	0.531	0.063	-	-
10	4.13	1.40	0.512	0.059	0.677	0.063	-	-
15	4.13	1.40	0.748	0.059	0.839	0.063	0.500	0.065
20	4.72	1.54	0.906	0.059	1.059	0.063	0.750	0.065
25	4.92	1.56	1.142	0.059	1.327	0.079	1.000	0.065
32	6.10	1.89	1.378	0.059	1.669	0.079	-	-
40	6.30	1.85	1.614	0.059	1.902	0.079	1.500	0.065
50	7.09	1.89	2.087	0.059	2.374	0.079	2.000	0.065
65	11.42	3.78	2.756	0.079	2.996	0.079	2.500	0.065
80	12.20	3.74	3.346	0.079	3.500	0.091	3.000	0.065

* Connection code 1A: L = 3.94, LB = 1.32

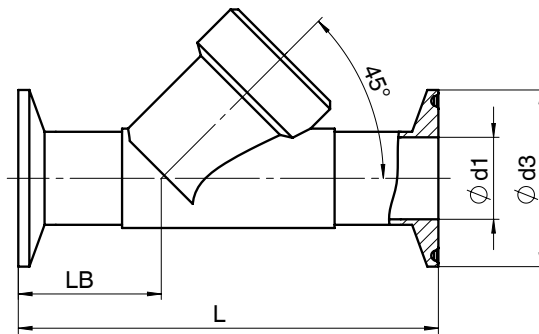
For materials see overview on page 5



Body dimensions [inch]

Clamp connections, connection code 82, 86, 88 Valve body material: 1.4435 (code C2)

DN	NPS	Connection code							
		LB	L	82		86		88	
				ø d1	ø d3	ø d1	ø d3	ø d1	ø d3
8	1/4"	1.87	5.12	0.406	0.984	-	-	-	-
10	3/8"	1.87	5.12	0.551	0.984	-	-	-	-
15	1/2"	1.87	5.12	0.713	1.988	0.630	1.339	0.370	0.984
20	3/4"	2.13	5.91	0.933	1.988	0.787	1.339	0.620	0.984
25	1"	2.20	6.3	1.169	1.988	1.024	1.988	0.870	1.988
32	1 1/4"	2.44	7.09	1.512	2.520	1.260	1.988	-	-
40	1 1/2"	2.64	7.87	1.744	2.520	1.496	1.988	1.370	1.988
50	2"	2.87	9.06	2.217	3.051	1.969	2.520	1.870	2.520
65	2 1/2"	4.72	11.42	2.839	3.583	2.598	3.583	2.370	3.051
80	3"	4.69	12.20	3.319	4.173	3.189	4.173	2.870	3.583



Overview of metal bodies for GEMÜ 505

Connection code	Spigots					Clamps		
	17		59		60	82	86	88
	C2	41	C2	41	C2	C2	C2	C2
DN 8	-	X	-	X	X	X	-	-
DN 10	X	-	-	X	X	X	-	-
DN 15	X	-	X	-	X	X	X	X
DN 20	X	-	X	-	X	X	X	X
DN 25	X	-	X	-	X	X	X	X
DN 32	X	-	-	-	X	X	X	-
DN 40	X	-	X	-	X	X	X	X
DN 50	X	-	X	-	X	X	X	X
DN 65	X	-	X	-	X	X	X	X
DN 80	X	-	X	-	X	X	X	X

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

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