

## Angle Seat Globe Valve, Metal

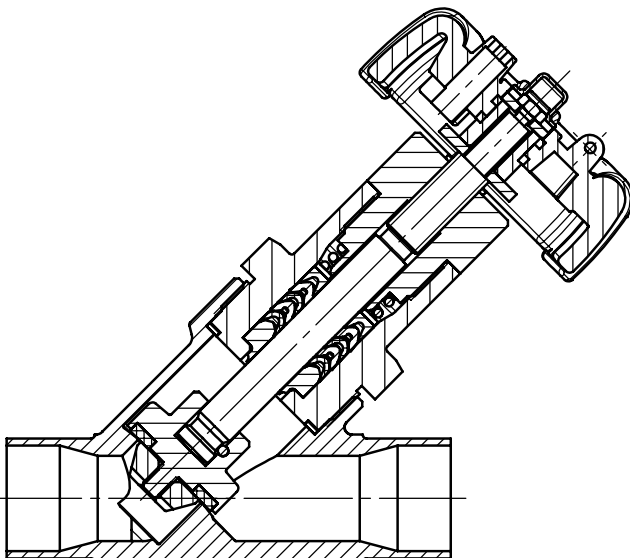
### Construction

The GEMÜ 507 manually operated 2/2-way angle seat globe valve has an ergonomically designed plastic handwheel. The valve spindle is sealed by a self-adjusting gland packing providing low maintenance and reliable valve spindle sealing even after a long service life. The wiper ring fitted in front of the gland packing protects it against contamination and damage. A stainless steel bellows and a handwheel extension (not for bonnet size 0) are available as options enabling full operator isolation.

### Advantages

- Various valve body connections: threaded sockets, threaded spigots, butt weld spigots
- Good flow capability due to angle seat design
- Versions according to ATEX on request
- Optionally suitable for contact with food according to Regulation (EC) No. 1935/2004 (K-No. 1935)

Sectional drawing



## Technical data

### Working medium

Corrosive, inert, gaseous and liquid 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

Medium temperature -10 °C to 180 °C

Max. permissible viscosity 600 mm<sup>2</sup>/s (cSt)

Other versions for lower/higher temperatures and viscosities on request.

### Leakage rate

Open-Closed-Valve: Leakage rate A to P11/P12 EN 12266-1

Control valve: DIN IEC 60534-4 VI L 1 PTFE seal

Control valve: DIN IEC 60534-4 IV L 1 metal seal

### Ambient conditions

Max. ambient temperature 60 °C

### Max. operating pressure [bar]

Bonnet size	DN 6	DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80
0	25	25	25	15	-	-	-	-	-	-	-
	-	-	25	25	25	25	25	25	25	16	16

All pressures are gauge pressures. When the flow is over the plug (M), there may be the danger of water hammer with liquid media! Please note that cast bronze valve bodies, when in pipe systems according to DIN are only suitable up to PN 16 max., cast stainless steel bodies up to PN 25

### Pressure / temperature correlation for angle seat globe valve bodies

Connection code	Material code	Max. allowable operating pressures in bar at temperature °C*						
		RT	50	100	150	200	250	300
1, 9, 10, 17, 37, 59, 60, 3C, 3D	37	25.0	23.7	21.3	19.2	17.7	16.4	15.4
0, 13, 16, 17, 18, 37, 59, 60	34	25.0	24.2	21.2	19.3	17.9	16.8	15.9
80, 88 (up to DN 65)	34	13.8	13.1	11.9	11.4**	-	-	-
80, 88 (DN 80)	34	13.8	12.7	11.0	10.3**	-	-	-
82, 86 (up to DN 65)	34	16.0	16.0	16.0	16.0***	-	-	-
82, 86 (DN 80)	34	10.0	10.0	10.0	10.0***	-	-	-
47	34	19.0	19.0	16.0	14.8	13.6	12.1	10.2
0, 16, 17, 18, 59, 60	40	25.0	22.8	20.6	18.7	17.1	15.8	14.8
1A, 1B	C2	25.0	24.2	21.2	19.3	17.9	16.8	15.9

\* The valves can be used down to -10°C

\*\* max. temperature 121 °C

\*\*\* max. temperature 140 °C

RT = Room Temperature

### Kv values [m<sup>3</sup>/h]

	DN 6	DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80
Butt weld spigots, DIN 11850	1.6	1.8	2.4	2.4	-	-	-	-	-	-	-
Butt weld spigots, DIN 11866	-	2.2	4.5	5.5	11.7	20.5	33.0	51.0	61.0	110.0	117.0
Threaded sockets, DIN ISO 228	-	-	4.5	5.4	10.0	15.2	23.0	41.0	68.0	95.0	130.0

Kv values determined acc. to IEC 534. The Kv value data refers to control function 1 (NC) and the largest bonnet for each nominal size. Kv values may be different for other combinations. Consult GEMÜ.

### Weight [kg]

Bonnet size	DN 6	DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80
0	0.3	0.3	0.3	0.3	-	-	-	-	-	-	-
	-	-	1.0	1.0	1.2	1.4	2.4	2.6	3.8	6.8	6.8

## Order data

Body configuration	Code
2/2-way body	D

Connection	Code
------------	------

### Butt weld spigots

Spigots DIN	0
Spigots DIN 11850, series 1	16
Spigots DIN 11850, series 2	17
Spigots DIN 11850, series 3	18
Spigots DIN 11866, series A	1A
Spigots DIN 11866, series B	1B
Spigots SMS 3008	37
Spigots ASME BPE	59
Spigots EN ISO 1127	60

### Threaded connections

Threaded sockets DIN ISO 228	1
Threaded sockets BS 21 Rc length DIN 3202-4 series M8	3C
Threaded spigots DIN ISO 228	9
Threaded sockets NPT length DIN 3202-4 series M8	3D

### Flanges

Flanges EN 1092 / PN25 / form B length EN 558, series 1	10
Flanges EN 1092 / PN25 /form B length see body dimensions	13
Flanges ANSI CLASS 125/150 RF length see body dimensions	47

### Clamp connections

Clamps ASME BPE for pipe ASME BPE, length ASME BPE	80
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
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1.4435 (ASTM A 351 CF3M $\cong$ 316L), Investment cast.	34
1.4408, Cast stainless steel	37
1.4435 (316 L), Forged body	40
1.4435, Investment casting	C2*
Material equivalency 316 L	

\* A surface finish from the order code table "K number" must be specified for valve body material C2.

Seat seal	Code
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PTFE	5
PTFE, glass reinforced	5G
Steel	10
PEEK (for bonnet 0)	PK

Control function	Code
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Manually operated	0
Manually operated with handwheel clamp	L

Bonnet size	Code
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Handwheel diameter 32 mm	0
Handwheel diameter 90/140 mm	

K number	Code
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Bellows (from DN 20)	2252
Handwheel extension	3007

Surface finish for valve body material C2	
external surface electrolytically gloss polished / mechanically polished internal Ra $\leq$ 0.6 $\mu$ m	1903
external surface electrolytically gloss polished / mechanically polished internal Ra $\leq$ 0.8 $\mu$ m	1904
external surface electrolytically gloss polished / mechanically polished internal Ra $\leq$ 0.4 $\mu$ m	1909

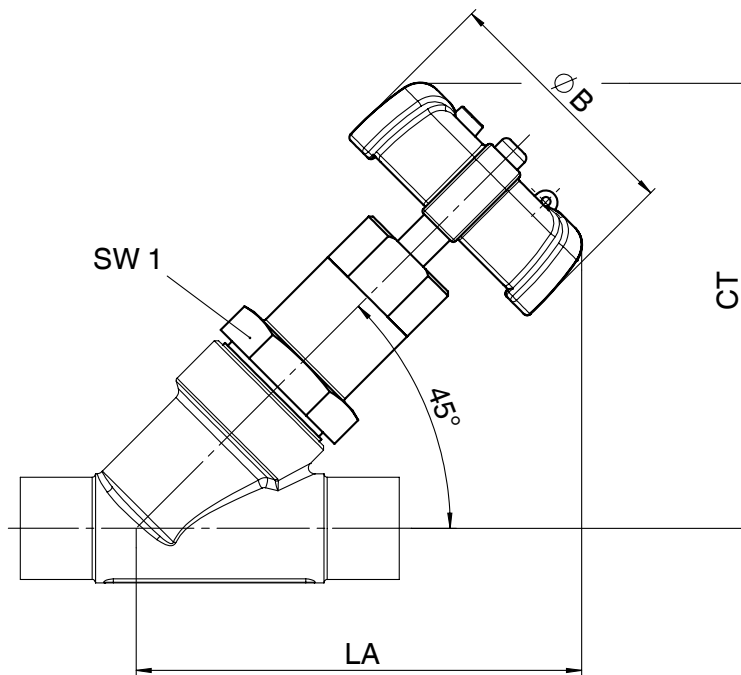
Order example	507	25	D	60	34	5	0	0	2252
Type	507								
Nominal size		25							
Body configuration (code)			D						
Connection (code)				60					
Valve body material (code)					34				
Seat seal (code)						5			
Control function (code)							0		
Bonnet size (code)								0	
K-number (Code)									2252

## Dimensions [mm]

### Installation dimensions

Bonnet	DN	SW1		øB	CT/LA	
					K-no. 3007*	
0	6	24	hexagonal	32	81	-
0	8	24	hexagonal	32	81	-
0	10	24	hexagonal	32	81	-
0	15	24	hexagonal	32	81	-
	10	41	hexagonal	90	139	167
	15	41	hexagonal	90	139	162
	20	46	hexagonal	90	145	168
	25	46	hexagonal	90	154	174
	32	41	double flat	90	162	184
	40	41	double flat	90	174	198
	50	41	double flat	90	186	211
	65	60	double flat	140	246	-
	80	60	double flat	140	263	-

\* K number 3007 (handwheel extension) is necessary for valve bodies with flanges



## Dimensions [mm]

### Butt weld spigots, connection code 0, 16, 17, 18, 37, 59, 60 Valve body material: 1.4435 (code 34), 1.4408 (code 37)

DN	Material code 34 L LB		Material code 37 L LB		Connection code													
					0		16		17		18		37		59		60	
					ø d	s	ø d	s	ø d	s	ø d	s	ø d	s	ø d	s	ø d	s
10	105	35.5	-	-	-	-	12	1.0	13	1.0	14	2.0	-	-	-	-	17.2	1.6
15	105	35.5	100	33	18	1.5	18	1.0	19	1.5	20	2.0	-	-	12.70	1.65	21.3	1.6
20	120	39.0	108	33	22	1.5	22	1.0	23	1.5	24	2.0	-	-	19.05	1.65	26.9	1.6
25	125	38.5	112	32	28	1.5	28	1.0	29	1.5	30	2.0	25.0	1.2	25.40	1.65	33.7	2.0
32	155	48.0	137	39	-	-	34	1.0	35	1.5	36	2.0	-	-	-	-	42.4	2.0
40	160	47.0	146	40	40	1.5	40	1.0	41	1.5	42	2.0	38.0	1.2	38.10	1.65	48.3	2.0
50	180	48.0	160	38	52	1.5	52	1.0	53	1.5	54	2.0	51.0	1.2	50.80	1.65	60.3	2.0
65	-	-	290	96	-	-	-	-	70	2.0	-	-	63.5	1.6	63.50	1.65	76.1	2.0
80	-	-	310	95	-	-	-	-	85	2.0	-	-	76.1	1.6	76.20	1.65	88.9	2.3

For materials see overview on page 9

### Butt weld spigots, connection code 0, 16, 17, 18, 59, 60 Valve body material: Forged body (code 40)

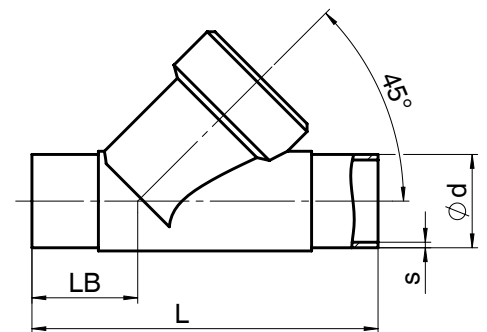
DN	L LB		Connection code														
			0		16		17		18		59		60				
			ø d	s	ø d	s	ø d	s	ø d	s	ø d	s	ø d	s			
6*	80	26.5	8	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
8*	80	26.5	10	1.0	-	-	-	-	-	-	-	-	-	13.5	1.6	-	-
10*	80	26.5	-	-	12	1.0	13	1.5	14	2.0	9.53	0.89	-	-	-	-	
15*	80	26.5	-	-	-	-	-	-	-	-	12.70	1.65	-	-	-	-	

\* only with actuator size 0

### Butt weld spigots, connection code 1A, 1B, 59 Valve body material: 1.4435 (code C2)

DN	L LB		Connection code					
			1A		1B		59	
			ø d	s	ø d	s	ø d	s
8	105*	35.5*	-	-	13.5	1.6	-	-
10	105	35.5	13	1.5	17.2	1.6	-	-
15	105	35.5	19	1.5	21.3	1.6	12.70	1.65
20	120	39.0	23	1.5	26.9	1.6	19.05	1.65
25	125	39.5	29	1.5	33.7	2.0	25.40	1.65
32	155	48.0	35	1.5	42.4	2.0	-	-
40	160	47.0	41	1.5	48.3	2.0	38.10	1.65
50	180	48.0	53	1.5	60.3	2.0	50.80	1.65
65	290	96.0	70	2.0	76.1	2.0	63.50	1.65
80	310	95.0	85	2.0	88.9	2.3	76.20	1.65

\* Connection code 1A: L = 100, LB = 33,5



## Body dimensions [mm]

### Threaded sockets DIN, connection code 1 Valve body material: 1.4408 (code 37)

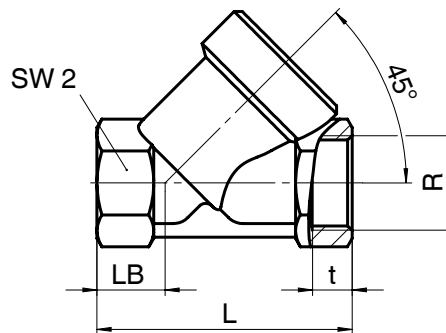
DN	L	LB	R	t	SW2	
8*	65	19.0	G 1/4	9.0	17	hexagonal
10*	65	19.0	G 3/8	9.0	24	hexagonal
15*	65	19.0	G 1/2	9.0	24	hexagonal
10	65	16.5	G 3/8	9.0	27	hexagonal
15	65	16.5	G 1/2	15.0	27	hexagonal
20	75	17.5	G 3/4	16.3	32	hexagonal
25	90	24.0	G 1	19.1	41	hexagonal
32	110	33.0	G 1 1/4	21.4	50	octagonal
40	120	30.0	G 1 1/2	21.4	55	octagonal
50	150	40.0	G 2	25.7	70	octagonal
65	190	46.0	G 2 1/2	24.0	85	octagonal
80	220	50.0	G 3	27.0	100	octagonal

\* only with bonnet size 0

### Threaded sockets NPT, BS 21 Rc, connection code 3C, 3D Valve body material: 1.4408 (code 37)

DN	L	LB	Connection code					
			SW2		3C		3D	
			R	t	R	t	R	t
8*	65	19.0	17	6	-	-	1/4" NPT	10.1
10*	65	27.0	24	6	-	-	3/8" NPT	10.4
15*	65	27.0	24	6	-	-	1/2" NPT	13.6
15	65	16.5	27	6	Rc 1/2	16.0	1/2" NPT	16.0
20	75	17.5	32	6	Rc 3/4	16.3	3/4" NPT	16.3
25	90	24.0	41	6	Rc 1	19.1	1" NPT	17.0
32	110	33.0	50	8	Rc 1 1/4	21.4	1 1/4" NPT	18.0
40	120	30.0	55	8	Rc 1 1/2	21.4	1 1/2" NPT	18.0
50	150	40.0	70	8	Rc 2	25.7	2" NPT	18.0

\* only with bonnet size 0



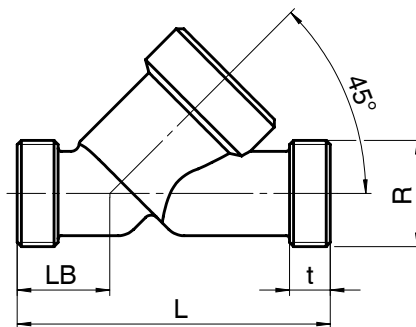
## Body dimensions [mm]

### Threaded spigots, connection code 9 Valve body material: 1.4408 (code 37), Forged body (code 40)

DN	L	LB	t	R
6*	65	19	12	G 1/4
8*	65	19	12	G 3/8
10*	65	19	12	G 1/2
15*	65	19	12	G 3/4
15	90	25	12	G 3/4
20	110	30	15	G 1
25	118	30	15	G 1 1/4
32	130	38	13	G 1 1/2
40	140	35	13	G 1 3/4
50	175	50	15	G 2 3/8
65	216	52	15	G 3
80	254	64	18	G 3 1/2

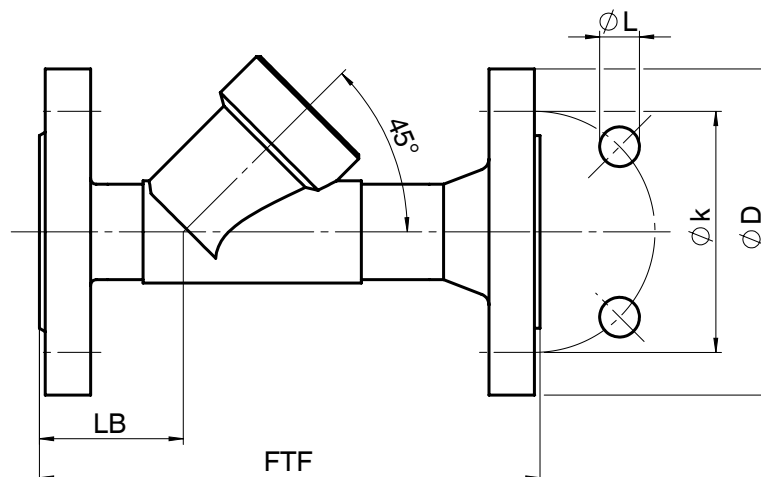
\* only with bonnet size 0

For materials see overview on last page



### Flanges, connection code 10 Valve body material: 1.4408 (code 37)

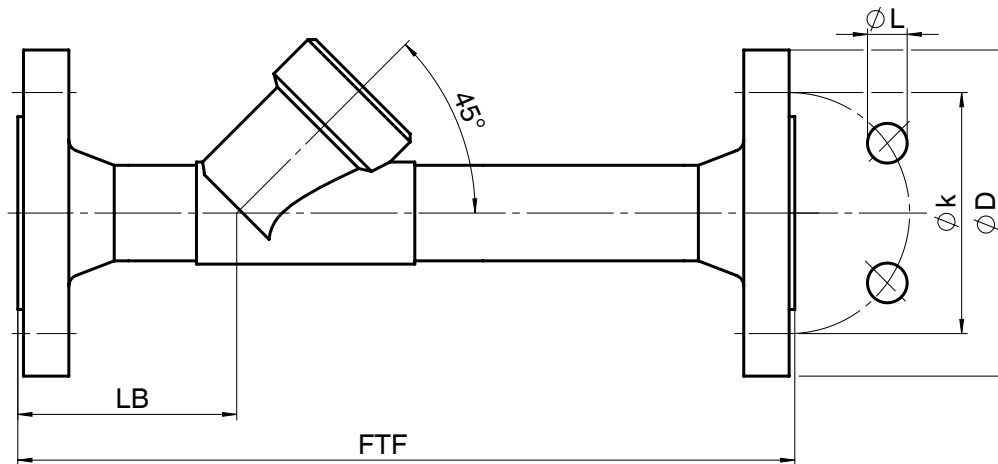
DN	FTF	LB	ø D	ø L	ø k	Number of bolts
15	130	33	95	14	65	4
20	150	45	105	14	75	4
25	160	44	115	14	85	4
32	180	51	140	18	100	4
40	200	52	150	18	110	4
50	230	50	165	18	125	4



## Body dimensions [mm]

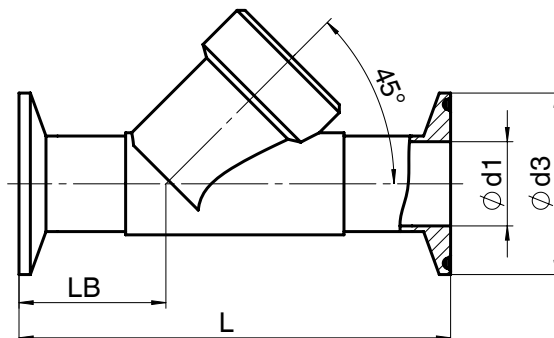
**Flanges, connection code 13, 47**  
**Valve body material: 1.4435 (code 34)**

DN	FTF	LB	Connection code 13				Connection code 47			
			ø D	ø L	ø k	Number of bolts	ø D	ø L	ø k	Number of bolts
15	210	72	95	14	65	4	89.0	15.7	60.5	4
20	280	78	105	14	75	4	98.6	15.7	69.8	4
25	280	77	115	14	85	4	108.0	15.7	79.2	4
32	310	89	140	18	100	4	117.3	15.7	88.9	4
40	320	91	150	18	110	4	127.0	15.7	98.6	4
50	330	95	165	18	125	4	152.4	19.1	120.7	4



**Clamp connections, connection code 80, 82, 86, 88**  
**Valve body material: 1.4435 (code 34)**

DN	NPS	Connection code								Connection code			
		LB	L	82		86		88		80			
				ø d1	ø d3	ø d1	ø d3	ø d1	ø d3	LB	L	ø d1	ø d3
15	1/2"	35.5	130	18.1	50.5	16	34.0	9.40	25.0	33.5	101.6	9.40	25.0
20	3/4"	39,0	150	23.7	50.5	20	34.0	15.75	25.0	30.0	101.6	15.75	25.0
25	1"	38,5	160	29.7	50.5	26	50.5	22.10	50.5	33.0	114.3	22.10	50.5
32	1 1/4"	48,0	180	38.4	64.0	32	50.5	-	-	-	-	-	-
40	1 1/2"	47,0	200	44.3	64.0	38	50.5	34.80	50.5	37.0	139.7	34.80	50.5
50	2"	48,0	230	56.3	77.5	50	64.0	47.50	64.0	36.5	158.8	47.50	64.0





## Overview of metal bodies for GEMÜ 507

Connection code	Threaded connections				Flanges			
	1	3C	9		3D	10**	13	47
Material code	37	37	37	40	37	37	34	34
DN 6	-	-	-	X*	-	-	-	-
DN 8	X*	-	X*	-	X*	-	-	-
DN 10	X*	-	X*	-	X*	-	-	-
DN 15	X*	-	X*	-	X*	-	-	-
DN 10	X	-	-	-	-	-	-	-
DN 15	X	X	X	-	X	X	X	X
DN 20	X	X	X	-	X	X	X	X
DN 25	X	X	X	-	X	X	X	X
DN 32	X	X	X	-	X	X	X	X
DN 40	X	X	X	-	X	X	X	X
DN 50	X	X	X	-	X	X	X	X
DN 65	X	-	X	-	-	-	-	-
DN 80	X	-	X	-	-	-	-	-

\* only with bonnet size 0

\*\* only with K number code 3007

## Overview of metal bodies for GEMÜ 507

Connection code	Spigots																Clamps								
	0		16		17			18		1A	1B	37		59				60			80	82	86	88	
Material code	34	40	34	40	34	37	40	34	40	C2	C2	34	37	34	37	40	C2	34	37	40	34	34	34	34	
DN 6	-	X*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DN 8	-	X*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X*	-	-	-	-
DN 10	-	-	-	X*	-	-	X*	-	X*	-	-	-	-	-	-	X*	-	-	-	-	-	-	-	-	-
DN 15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X*	-	-	-	-	-	-	-	-	-
DN 8	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DN 10	-	-	X	-	X	-	X	-	X	X	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
DN 15	X	-	X	-	X	X	-	X	-	X	X	-	-	X	-	-	X	X	X	-	X	X	X	X	X
DN 20	X	-	X	-	X	X	-	X	-	X	X	-	-	X	-	-	X	X	X	-	X	X	X	X	X
DN 25	X	-	X	-	X	X	-	X	-	X	X	X	-	X	-	-	X	X	X	-	X	X	X	X	X
DN 32	-	-	X	-	X	X	-	X	-	X	X	-	-	-	-	-	-	X	X	-	-	X	X	-	-
DN 40	X	-	X	-	X	X	-	X	-	X	X	X	-	X	-	-	X	X	X	-	X	X	X	X	X
DN 50	X	-	X	-	X	X	-	X	-	X	X	X	-	X	-	-	X	X	X	-	X	X	X	X	X
DN 65	-	-	-	-	-	X	-	-	-	X	X	-	X	-	X	-	X	-	X	-	-	-	-	-	-
DN 80	-	-	-	-	-	X	-	-	-	X	X	-	X	-	X	-	X	-	X	-	-	-	-	-	-

\* only with bonnet size 0

\*\* only with K number code 3007

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

**GEMÜ**® VALVES, MEASUREMENT AND CONTROL SYSTEMS

