

## Monobloc ball valve type 27 el and type 27 A el



Body material	PPH-el	PE-el	PVDF-el
Ball seat	PTFE		
Other seats	• EPDM	• FKM	• FEP
Working temperature	-10 °C up to 80 °C <sup>1)</sup>	-30 °C up to 60 °C <sup>1)</sup>	-30 °C up to 120 °C <sup>1)</sup>
Nominal size	Type 27 el = DN 15 up to DN 50 (type 27 A el = DN 65 up to DN 100)		
Connection with pipe	<ul style="list-style-type: none"> <li>• Flange connection acc. to DIN EN 1092-1 (replaces DIN 2501) - PN 10</li> <li>• Flange connection acc. to ANSI 150 lbs</li> </ul>		• Spigot SDR 11 / 21
Length	Flange DIN EN 558 - 1 series FTF 1 (DIN 3202 - series F 1) Flange ANSI Class 150		
Actuator	Lockable lever, optionally pneumatic or electric actuator		
Accessories	Limit switches, solenoid valves, shaft extension		
ATEX-approval	also according to ATEX-guideline  2014/34/EU available		

<sup>1)</sup> Working temperatures for sealing materials:  
 EPDM: -20 up to 90 °C  
 FKM / FEP: -30 up to 120 °C

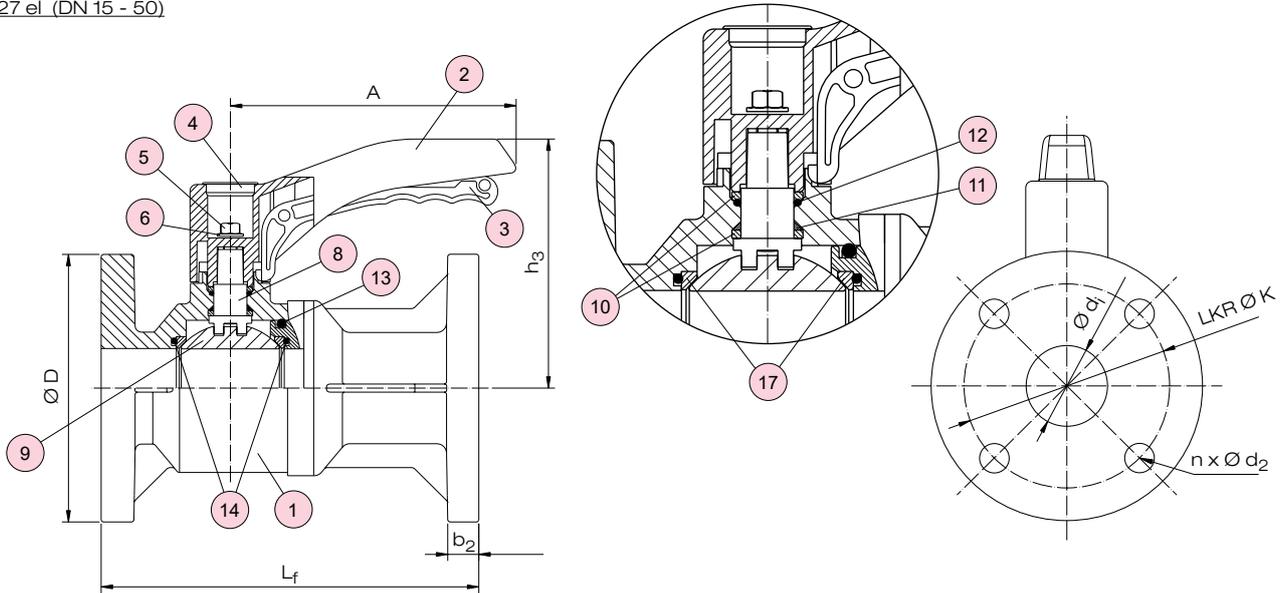
### Example for an invitation to tender text:

Monobloc ball valve type 27 el, DN 50, PN 10, PE-el / EPDM, flange connection acc. to DIN EN 1092-1 - PN 10, length acc. to DIN EN 558-1, series FTF 1, variable lever and optical position indicator

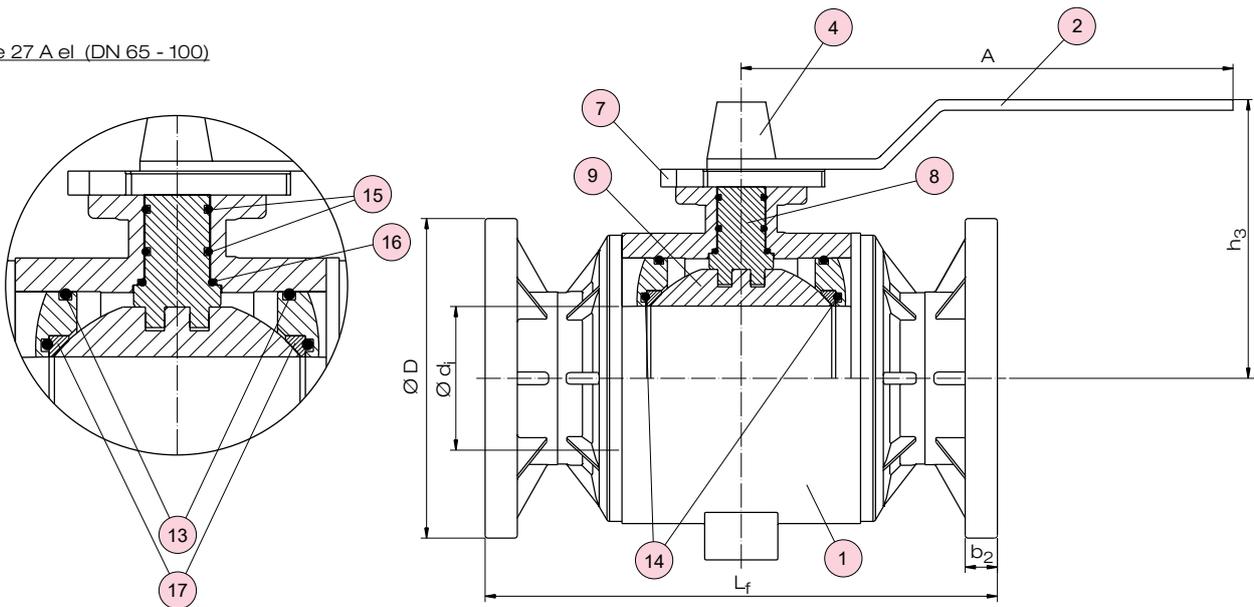
**Document:** FRANK\_DB\_L4\_Monoblock Kugelhahn Typen 27 el + 27 A el\_06-2022\_EN

## Monobloc ball valve type 27 el and type 27 A el

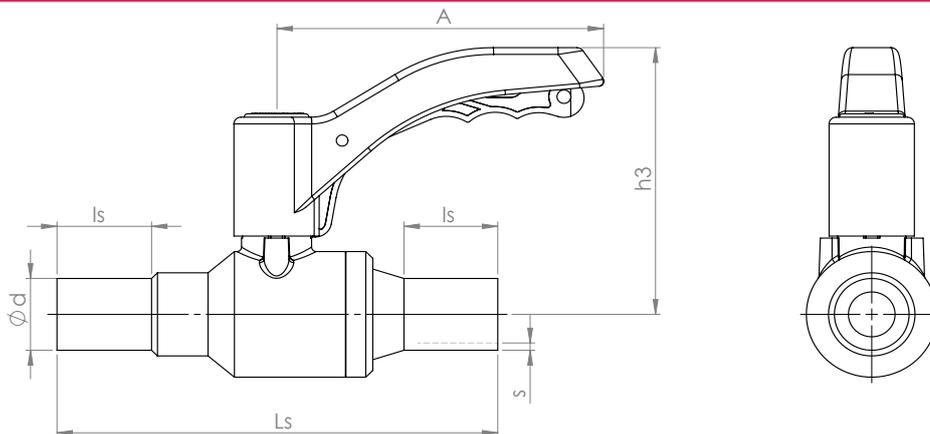
Type 27 el (DN 15 - 50)



Type 27 A el (DN 65 - 100)



Spigot



## Monobloc ball valve type 27 el and type 27 A el

No.	Description	Number	Material
1	Body	1	PPH-el <sup>1)</sup> , PE-el <sup>2)</sup> , PVDF-el
2	Lever	1	PPH-el <sup>3)</sup>
3	Hand lever	1	A5 - 1.4571 (SUS 316 Ti)
4	Cap	1	PELD
5	Hexagonal nut	1	A4 - 1.4404 (SUS 316 L)
6	Washer	1	A4 - 1.4404 (SUS 316 L)
7	Locking plate	1	PPG
8	Stem	1	PPH-el, PPG, PVDF-el
9	Ball	1	PVDF-el

No.	Description	Number	Material
10	Sheet gasket	2	PTFE
11	Seal	1	PTFE
12	O-ring (A)	1	EPDM, FKM, FEP
13	O-ring (B)	1/2	EPDM, FKM
14	O-ring (C)	2	EPDM, FKM, FEP
15	O-ring (D) DN 65 - 100	2	EPDM, FKM
16	O-ring (E) DN 65 - 100	1	EPDM, FKM, FEP
17	Ball seat	2	PTFE

<sup>1)</sup> Stem and ball in PVDF-el (DN 15 to DN 25)    <sup>2)</sup> Stem and ball in PVDF-el    <sup>3)</sup> from DN 65-DN 100: 1.4571 (SUS 316 Ti)

### Dimensions and weights - flange connection acc. DIN

Dimensions in mm									Weight in kg / pc.		
DN	d <sub>1</sub>	K	D	L <sub>f</sub>	h <sub>3</sub>	A	b <sub>2</sub>	n x d <sub>2</sub>	PPH-el	PE-el	PVDF-el
15	15	65	95	130	115	140	13	4 x 14	0,35	0,42	0,61
20	20	75	105	150	115	140	14	4 x 14	0,41	0,49	0,70
25	25	85	115	160	125	140	15	4 x 14	0,52	0,63	0,92
32	31	100	140	180	145	175	17	4 x 18	0,98	1,17	1,71
40	40	110	150	200	145	175	17,5	4 x 18	1,10	1,31	1,94
50	51	125	165	230	155	175	18	4 x 18	1,50	1,80	2,72
65	58	145	185	290	175	280	20	4 x 18	3,21	3,86	5,81
80	68,5	160	200	310	175	280	20	8 x 18	3,38	4,06	6,12
100	100	180	220	350	183	280	21	8 x 18	3,55	4,26	6,43

### Dimensions and weights - flange connection acc. ANSI

Dimensions in mm									Weight in kg / pc.		
DN	d <sub>1</sub>	K	D	L <sub>f</sub>	h <sub>3</sub>	A	b <sub>2</sub>	n x d <sub>2</sub>	PPH-el	PE-el	PVDF-el
1/2"	15	60	95	108	115	140	13	4 x 16	0,33	0,40	0,57
3/4"	20	70	105	117	115	140	14	4 x 16	0,40	0,48	0,66
1"	25	79,5	115	127	125	140	15	4 x 16	0,50	0,61	0,87
1 1/4"	31	89	140	140	145	175	17	4 x 16	0,95	1,13	1,65
1 1/2"	40	98,4	150	165	145	175	17,5	4 x 16	1,06	1,27	1,86
2"	51	120,6	165	178	155	175	18	4 x 19	1,45	1,74	2,60
2 1/2"	58	140	185	190	175	280	20	4 x 19	3,11	3,73	5,62
3"	68,5	152	200	203	175	280	20	4 x 19	3,27	3,93	5,92
4"	100	190	220	229	183	280	21	8 x 19	3,43	4,12	6,21

### Dimensions and weights - spigot

Dimensions in mm								Weight in kg / pc.		
DN	d	s	s	l <sub>s</sub>	L <sub>s</sub>	h <sub>3</sub>	A	PPH-el	PE-el	PVDF-el
		SDR 11 <sup>4)</sup>	SDR 21 <sup>5)</sup>							
15	20	1,9	1,9	30	170	115	140	0,21	0,21	0,38
20	25	2,3	1,9	50	210	115	140	0,24	0,24	0,43
25	32	2,9	2,4	55	225	125	140	0,28	0,28	0,50
32	40	3,7	2,4	55	260	145	175	0,52	0,52	0,94
40	50	4,6	3,0	35	235	145	175	0,55	0,55	0,99
50	63	5,8	3,0	60	300	155	175	0,85	0,85	1,50
65	75	6,8	3,6	15	240	175	280	1,90	1,90	3,42
80	90	8,2	4,3	25	300	175	280	2,02	2,02	3,62
100	110	10,0	5,3	25	350	183	280	2,45	2,45	4,41

<sup>4)</sup> PPH-el, PE-el    <sup>5)</sup> PVDF-el

## Monobloc ball valve type 27 el and type 27 A el

Flow rate characteristic value<sup>1)</sup>  $k_{VS}$  in  $m^3/h$

DN	15	20	25	32	40	50	65	80	100
$k_{VS}$ [ $m^3/h$ ]	11,1	21,0	42,0	60,0	96,0	186,0	300,0	420,0	840,0

<sup>1)</sup> Definition  $k_{VS}$ -value see chapter T2 / technical information

Drive torque<sup>2)</sup>  $M_A$  in Nm for ball movement

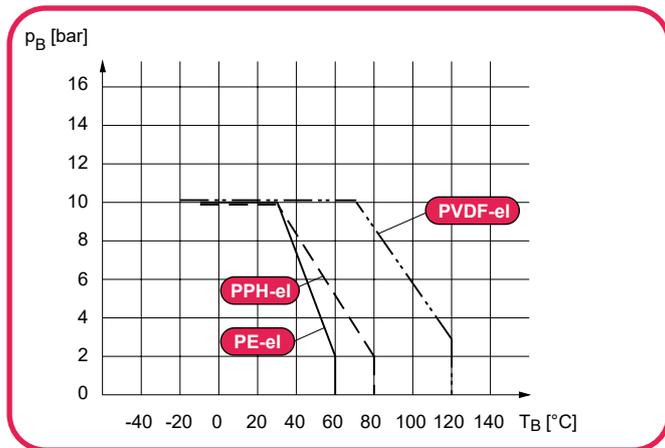
DN	15	20	25	32	40	50	65	80	100
$M_A$ [Nm]	6,0	6,0	8,0	12,0	12,0	19,0	18,0	18,0	18,0

<sup>2)</sup> all values refer to the maximum differential pressure

Tightening torque in Nm for flange bolts

DN	15	20	25	32	40	50	65	80	100
Torque [Nm]	7,0	9,0	10,0	20,0	25,0	30,0	45,0	45,0	45,0

Working pressure<sup>3)</sup>  $p_B$  in bar



Body material	$T_B$ in °C	DN
		10 - 100
PPH-el	-10 up to 30	10
	40	8,4
	60	5,2
	80	2
PE-el	-30 up to 30	10
	40	7,2
	50	4,5
	60	2
PVDF-el	-20 up to 30	10
	70	10
	80	8,8
	100	5,8
	120	3

<sup>3)</sup> Definition see chapter T2 / technical information