

# PRODUCT DATA SHEET

## Engelsberg check valves



**Ramén Valves**

We know the flow

Type 102 - Standard swing check | Type 202 - Spring loaded swing check

Type 302 - Spring loaded swing check | Type 435 - Y-type check valve



Standard Swing check valve (type 102) for liquid and gas flow. The disk design allows quick shut-off to prevent backflow; however, it opens at very low flowrate. Available in metal seated or soft seated (optional) design. Type 202 and 302 can be supplied with spring loaded disc for controlled opening and closing also in various mounting directions. Wafer type design for mounting between flanges.

**Material:** Titanium ASTM grade 2, 254 SMO, Duplex, Hastelloy C-276, 904L, 316 SST

**Dimension:** DN20-DN600 (3/4"-24")

**End connections:** Wafer

**Pressure class:** PN10 up to PN100 (ANSI class 150/300)

**Pressure test:** Acc. to EN12266-1

**Temperature:** -50°C to 350°C

**Leakage class:** Rate A acc. to EN12266-1

**Design:** Standard, Spring Loaded, Non-SlamType

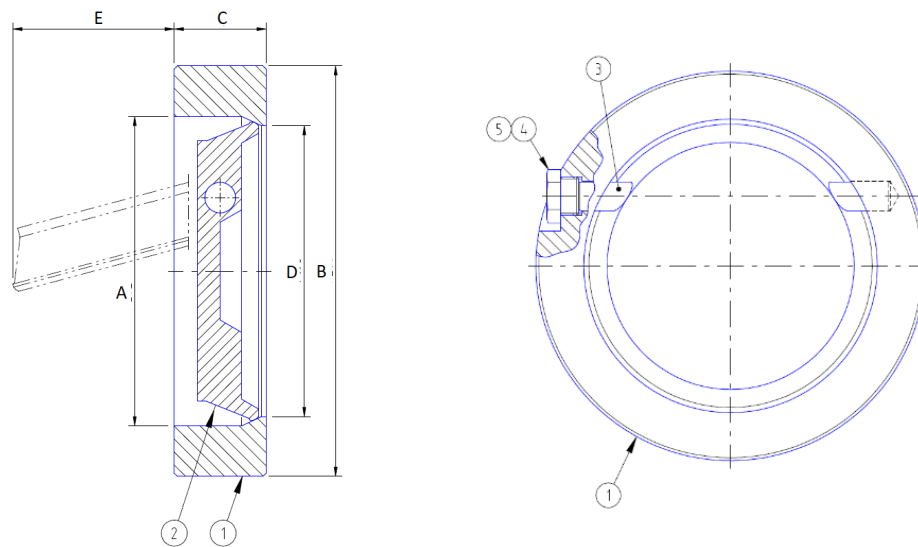
**Approvals:** CE-marked acc. to PED 2014/68/EU

### Ordering code

Part no. Position	EB	1	2	3	4	-	5	6	-	7	8	9	10	11	-	12	13	14	15	16	17	18	-	20
Part No. code example	EB		1	0	2	-	1	3	-	4	0	1	5	0	-	5	0	-	S	D	5	4	-	

EB	Valve series (1-4)		Body material (5-6)		End connection (7-8)		Pressure rating (9-11)		Size (12-14)		Design (15-16)		Shaft seal (17-18)		Spring material (19-20)										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
EB	102	Swing Check Valve	10	316 SST / EN 1.4408	28	BSP female	10	DIN PN10	8	SL	Spring loaded	10	316 SST	10	316 SST										
	202	Spring loaded swing check valve	12	Duplex / EN 1.4470	40	Wafer	16	DIN PN16	10	NS	Non slam	54	PTFE	14	Hastelloy C-276										
	302	Spring loaded swing check valve	13	Titanium Gr.2			25	DIN PN25	15	SD	Standard	55	Copper												
	435	Y-type globe check valve	14	Hastelloy C-276			40	DIN PN40	20																
			16	254 SMO / EN 1.4547			64	DIN PN64	25																
			17	904L / EN 1.4539			100	DIN PN100	32																
			19	Super Duplex / EN 1.4410			150	ANSI class 150	40																
			20	Super Duplex / EN1.4410			300	ANSI class 300	50																
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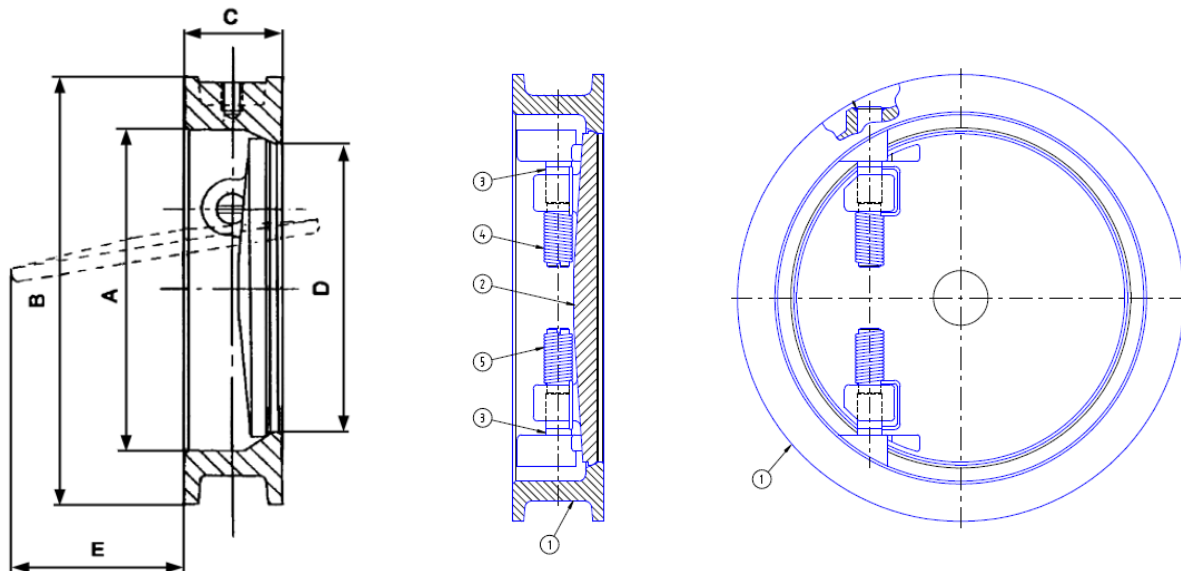
## Type 102 - Standard swing check



Parts and material of construction								
No.	Part	Material						
1	Body	316 SST/ EN 1.4408	Titanium Gr. 2	Hastelloy C-276	904L (EN 1.4539)	254 SMO (EN 1.4547)	Duplex (EN 1.4470)	
2	Disc	316 SST/EN 1.4408	Titanium Gr. 2	Hastelloy C-276	904L (EN 1.4539)	254 SMO (EN 1.4547)	Duplex (EN 1.4470)	
3	Shaft	316 SST/EN 1.4408	Titanium Gr. 2	Hastelloy C-276	904L (EN 1.4539)	254 SMO (EN 1.4547)	Duplex (EN 1.4470)	
4	Plug	316 SST/EN 1.4408	Titanium Gr. 2	Hastelloy C-276	904L (EN 1.4539)	254 SMO (EN 1.4547)	Duplex (EN 1.4470)	
5	Shaft seal	Copper	PTFE					
Temperature ratings								
Temperature range		-38°C to +310°C			-50°C to +200°C			
Pressure ratings								
DN20 to DN100		PN100 (ANSI 150/300)			PN100			
DN100 to DN250		PN40 (ANSI 150/300)			PN40			

Dimensions							
Size DN	A	B	C	D	E	Kv	Weight [kg]
20 (3/4")	28	54	30	20	1	10	0,5
25 (1")	28	64	30	24	1	16	0,7
32 (1 1/4")	28	73	30	24	1	26	0,9
40 (1 1/2")	42	86	40	36	10	40	1,8
50 (2")	52	102	43	46	18	63	2,0
80 (3")	80	138	46	72	36	152	4,0
100 (4")	102	158	52	89	44	246	9,1
150 (6")	152	212	56	138	83	1250	11,3
200 (8")	202	268	60	190	106	2300	12,8
250 (10")	245	320	68	228	138	3500	14,1

# Type 202 - Spring loaded swing check

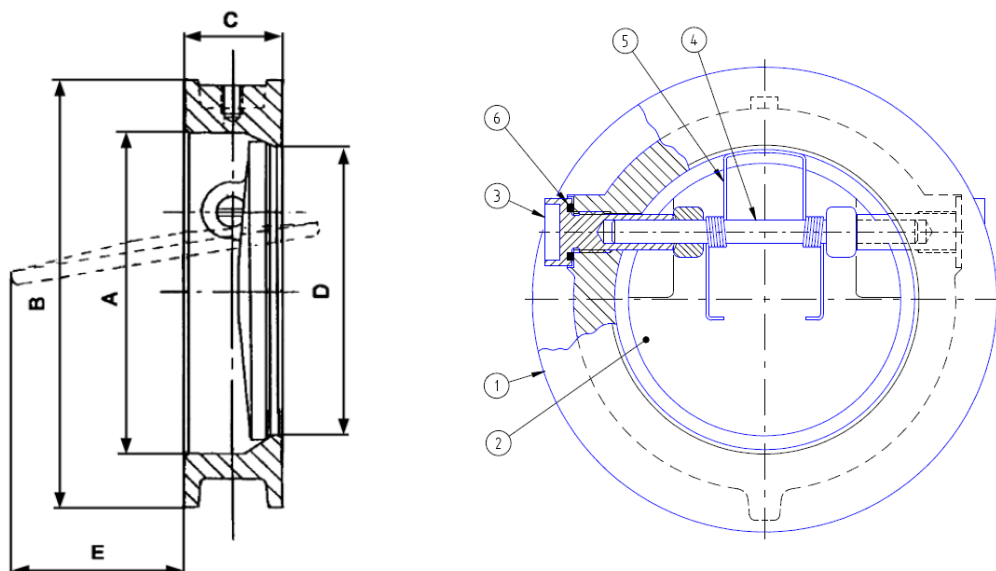


Parts and material of construction								
Pos.	No.	Part		Material				
1	1	Body	316 SST/ EN 1.4408	Titanium Gr. 2	Super Duplex/ (EN 1.4469)	Hastelloy C- 276	254 SMO (EN 1.4547)	Duplex (EN 1.4462)
2	1	Disc	329 SST/ EN 1.4460	Titanium Gr. 2	Super Duplex/ (EN 1.4469)	Hastelloy C- 276	254 SMO (EN 1.4547)	Duplex (EN 1.4462)
3	1	Shaft	Duplex AISI 329/ EN 1.4462	Titanium Gr. 2	Super Duplex/ (EN 1.4410)	Hastelloy C- 276	254 SMO (EN 1.4547)	Hastelloy C-276
4	1	Spring	316 SST/ EN 1.4401	Titanium Gr. 2	Hastelloy C-276			
5	2	Plug	316 SST/ EN 1.4401	Titanium Gr. 2	Super Duplex / (EN 1.4410)	Hastelloy C- 276	254 SMO (EN 1.4547)	Duplex (EN 1.4462)
7	2	Shaft seal			PTFE			PTFE
Temperature ratings								
Temperature range				-50°C to +300°C				
Pressure ratings								
DN350 to DN450				PN16				
DN500 to DN600				PN10				

Dimensions							
Size DN	A	B	C	D	E	Kv	Weight [kg]
350 (14")	352	438	90	308	191	6900	43
400 (16")	402	490	100	360	226	9000	56
450 (18")	452	535	110	408	256	11150	70
500 (20")	502	585	120	457	290	14250	82
600 (24")	602	685	130	553	350	20500	138

In steam design, max 60° open angle.

# Type 302 - Spring loaded swing check



Parts and material of construction							
Pos.	No.	Part		Material			
1	1	Body	Titanium Gr. 2	316 SST / EN 1.4408	Super Duplex/ (EN 1.4469)	254 SMO (EN 1.4547)	Duplex (EN 1.4470)
2	1	Disc	Titanium Gr. 2	329 SST / EN 1.4460	Super Duplex/ (EN 1.4469)	254 SMO (EN 1.4547)	Duplex (EN 1.4470)
3	2	Plug	Titanium Gr. 2	316 SST / EN 1.4401	Super Duplex/ (EN 1.4410)	254 SMO (EN 1.4547)	Duplex (EN 1.4462)
4	1	Shaft	Titanium Gr. 2	Duplex AISI 329 / EN 1.4462	Super Duplex/ (EN 1.4410)	254 SMO (EN 1.4547)	Duplex (EN 1.4462)
5	1	Spring	Titanium Gr. 2	316 SST / EN 1.4401	Hastelloy C-276		
6	2	Shaft seal	Titanium Gr. 2	316 SST / EN 1.4401	PTFE		
Temperature ratings							
Temperature range			-50°C to +350°C				
Pressure ratings							
DN100 to DN300			PN40 (ANSI 150/300)				

Dimensions							
Size DN	A	B	C	D	E	Kv	Weight [kg]
100 (4")	102	158	40	88	49	560	3,1
150 (6")	154	212	45	135	86	1250	5,5
200 (8")	204	268	60	182	116	2300	10,8
250 (10")	254	320	68	228	146	3500	17
300 (12")	304	378	78	277	176	5000	27,5

## Type 435 - Y-type check valve



Globe style check valve in Y-type design used for liquid and gas flow. They are available in soft or metal seated disk and come in female BSP threaded connections.

**Material:** 316 SST (Other materials available on request)

**Dimension:** DN8-DN25

**End connections:** Female: Threaded Opt: Butt weld or Socket Weld

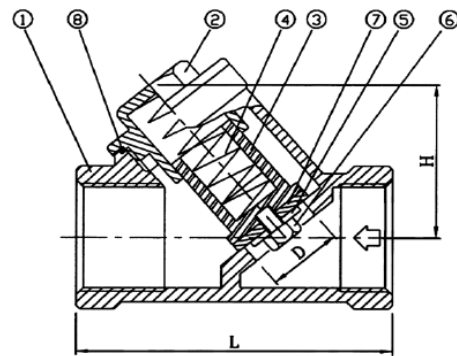
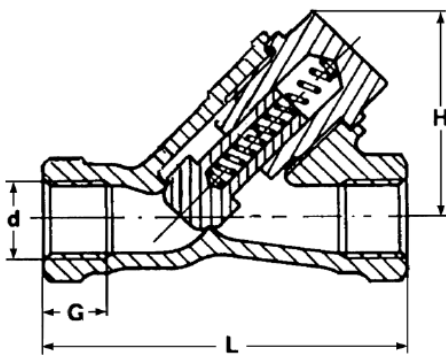
**Pressure class:** PN100

**Pressure test:** Acc. to EN12266-1

**Temperature:** -50°C to 200°C

**Leakage class:** Rate A acc. to EN12266-1

**Design:** Y-Type Spring Loaded



Parts and material of construction			
Pos.	No.	Part	Material
1	1	Body	316 SST / EN 1.4408
2	1	Seat	316 SST / EN 1.4408   PTFE
3	1	Disc	316 SST / EN 1.4401
4	1	Cap	
5	1	Spring	
6	1	Seal	PTFE
Temperature ratings			
Temperature range		-50°C to +200°C (metal seated) -50°C-180°C (soft seated)	
Pressure ratings			
DN8 to DN25		PN100	

Dimensions						
Size DN	d (inch)	G	L	H	Kv	Weight [kg]
8	1/4	13	75	45	3	0,3
10	3/8	14	75	45	3	0,3
15	1/2	18	75	45	3	0,3
20	3/4	19	90	60	16	1,8
25	1	23	100	60	16	1,8