

baelz 340 & 340-2

DESCRIPTION

The baelz 340 / 340-2 is a 2-way control valve in a 3-way housing for industrial applications. Several plug variants allow utilization for different control tasks.

TECHNICAL SPECIFICATIONS

Connection type: Flange EN 1092-1, types D / E / F on request.

Plug type: parabolic plug, special plug, cage plug

Control characteristic: equal percentage, linear

Working fluids: liquids, gases, water, steam, thermal oil, etc.

Leakage class (EN 1349 / EN 60534-4)
metal-to-metal seal: 0.004% Kvs (better than class IV)
with PTFE plug: 0.001% Kvs (better than class VI)

Stroke (mm)		Spindle diameter (mm)
DN 15 - DN 25	12	10
DN 32 - DN 125	22	10
DN 150	44	22
DN 200 - DN 300	66	

Options		Designation
Plug	Parabolic plug (standard)	-
	Balanced	EMF
	Perforated plug	LK
	Special plug	SKR
	PTFE soft seal plug (max. 200°C)	TK
Spindle seal	V-rings in PFTE standard	-
	Cooling tube	K
	Cooling tube + stainless steel bellows with safety stuffing box	K-SS
Flanges	Flange faces: inlet groove, outlet tongue	NF
	Flange faces: inlet/outlet: male/female	VR
	Flange faces: groove both sides	ALL-N
Additional options	V-shaped seal heating (for fluids at temperatures of - 10 to - 40°C) Pmax. 20 W; 12-24 V / 110-230 V AC/DC	baelz 85950
	Silicone-free	Silf

Valve type designation: 340-2-B up to DN 125 with spindle Ø 10 mm; 340-BB from DN 150 with spindle Ø 22 mm

T max. (°C) / P max. (bar)			
Valve body material	**Spheroidal ductile iron GJS-400-18-LT - 5.3103**		**Cast steel GP240GH - 1.0619**
Nominal pressure	**PN 16**	**PN 25**	**PN 40 [1]**
baelz 340-2-B, 340-BB	240/12,3 … 50/16	240/19,3 … 50/25	240/30,9 … 50/40
baelz 340-B-EMF-2, 340-BB-EMF			
baelz 340-2-BK, 340-BBK	350/10,2 … 50/16	350/16 … 50/25	350/25,7 … 50/40
baelz 340-2-BK-SS, 340-BBK-SS		350/16 … 50/16 [2]	350/25 … 50/25
baelz 340-2-BKK-SS			400/23,8 ... 50/25 [1]
baelz 340-BK-EMF-2, 340-BBK-EMF	315/10,7 … 50/16	315/16,8 ...260/18,6 … 50/25	315/27 … 50/40

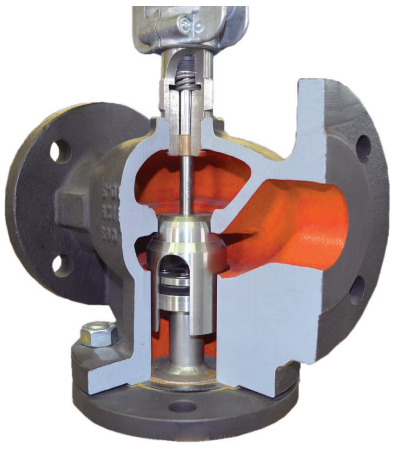
[1] Up to 400 °C upon request for BKK-SS. Up to 450 °C upon request for BKK (450 °C / 13,1 bar ... 50 °C / 40 bar).
[2] For sizes DN 15-25, the values for the BK model apply.

Note: As we are constantly improving our products, there is more than one series of this article. When ordering spares or parts for an existing system, please state the old serial numbers and, if in doubt, contact Baelz. We'll be pleased to help.

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Kvs value (m³/h)														
DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
Standard plug (B/BB)	5,9	7,8	9,6	16	25	36	63	105	130	200	360	580	960	1340
Balanced plug (EMF)	-	-	-	-	25	36	63	105	130	200	360	580	960	1340
Balancing cage plug (EMF-LK)	-	-	-	-	20	32	50	80	100	150	250	320	580	960
	-	-	-	-	-	25	36	63	80	130	-	-	--	-
	-	-	-	-	-	20	25	40	63	100	-	-	-	-
Reduced Kvs	3	4	6,5	10	14	23	38	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Cage plug (LK)	2,5	4	6,3	10	20	32	50	80	100	150	250	320	580	960
	2	2,5	4	6,3	16	25	36	63	80	130	200	-	-	-
	1,6	0,6	2,5	4	10	20	25	40	63	100	-	-	-	-

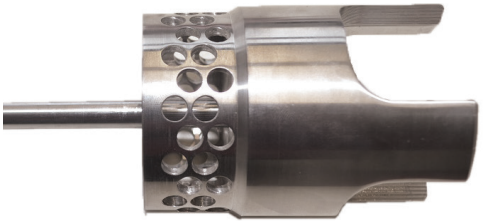
Approximate weights of the baelz 340 & 340-2 valves (kg)															
		340-2-B										340-BB			
DN		**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**
Standard	**PN16**	6.2	7.1	7.8	11.5	13.9	18.5	27.8	32.9	44.5	65.6	101	200	240	425
	PN25														
	PN40												270	310	
Cooling tube (K)	**PN16**	7.2	8.1	8.8	12.5	14.9	19.5	28.8	33.9	45.5	66.6	107	250	300	470
	PN25														
	PN40	7.7	8.6	9.3	13.5	16.4	21.5	31.8	37.9	50.5	73.6	117	270	345	540
Cooling tube and bellows seal (K-SS)	**PN16**	7.5	8.4	9.1	12.8	15.2	19.8	29.1	34.2	45.8	66.9	107.7	250	300	470
	PN40	8	8.9	9.6	13.8	16.7	21.8	32.1	38.2	50.8	73.9	118	270	-	-
Balanced plug (EMF)	**PN16**	-	-	-	-	14.4	19	28.4	32.9	46.3	71	101	200	240	425
	PN25														
	PN40	-	-	-	-	15.9	21	31.4	36.9	51.3	78	111	252	310	518
Cooling tube and balanced plug (K-EMF)	**PN16**	-	-	-	-	15.4	20	29.4	33.9	47.3	72	107	250	300	470
	PN25														
	PN25 steel													320	450
	PN40	-	-	-	-	16.9	22	32.4	37.9	52.3	79	122	302	370	558



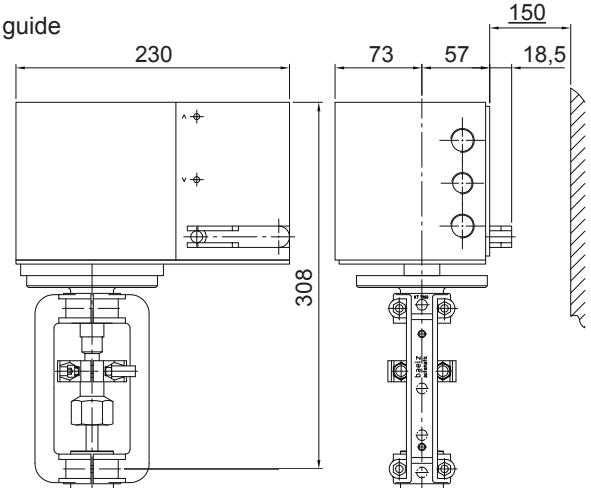
Sectional view of baelz 340-B-EMF-2 plug



baelz 340-B-EMF-2 balancing guide



baelz 340-2-B cage plug



Dimensions of baelz 373-E65 actuator

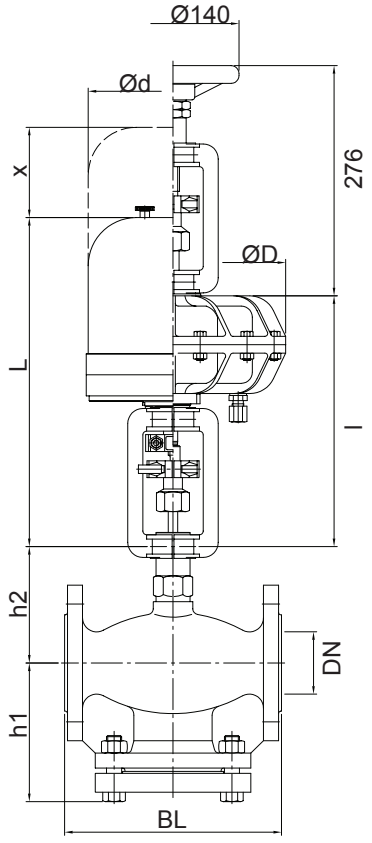
Baelz-Katalog_13_EN_MJ_4424

Dimensions of the baelz 340 & 340-2 valves (mm)						
DN	BL	h1			h2	
					340-2-B	340-2-BK / 340-2-BK-SS
15	130	101			110 (105)*	236 (231)*
20	150	103			110 (105)*	236 (231)*
25	160	113			110 (105)*	236 (231)*
32	180	130			104	283 (283)*
40	200	135			114	283 (281)*
50	230	147			124	293 (277)*
65	290	159			144	313 (269)*
80	310	166			154	323 (269)*
100	350	189			169	338 (262)*
125	400	243			189	358 (252)*
		PN16	PN25	PN40	340-BB	340-BBK / 340-BBK-SS
150	480	269	277	277	244	234
200	600	272	280	288	268	258
250	730	314	322	332	317	307
300	850	327	335	345	361	351

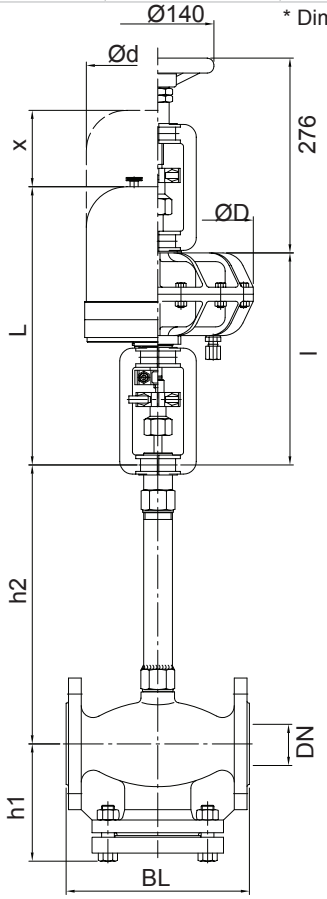
* Dimension h2 for previous version of baelz 340

Dimensions of the baelz 373 actuators (mm)							
Designation	L		x	Ød	l		ØD
E07	320 (OSX: L =354)		145	129			
E45	560		150	175			
E65	see dimensonal drawing on previous page						
P11					244		160
P21					268		242
P21-V6					304		242
P22					322		242
	340-BB/ 340-BB-EMF	340-BBK/ 340-BBK-SS			340-BB/ 340-BB-EMF	340-BBK/ 340-BBK-SS	
E45	577	1057	150	175			
E66	614	1094	200	188 (258*)			
P31					509	989	384
P32					525	1005	384
P41					562	1042	506
P41-V6					687	1167	506

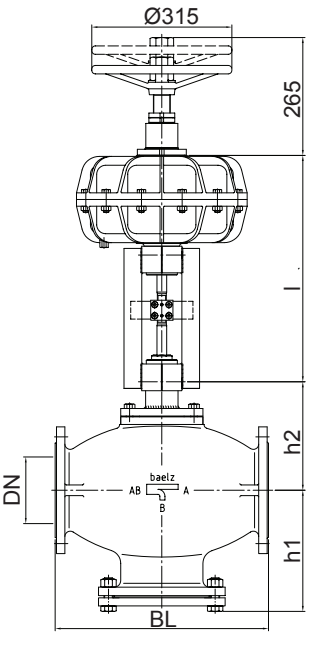
* Dimensions with manual operation



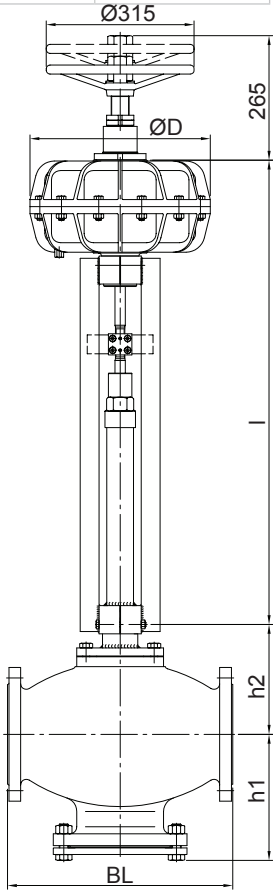
baelz 340-2-B DN15-125
baelz 340-B-EMF-2 DN40-125



baelz 340-2-BK DN15-125
baelz 340-2-BK-SS DN15-125



baelz 340-BB DN150-300
baelz 340-BB-EMF DN150-300



baelz 340-BBK DN150-300
baelz 340-BBK-SS DN150-300

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Maximum differential pressure ΔPmax (bar) at which the actuator closes the valve completely
The differential pressures specified here are limited by the nominal pressure of the valve bodies, if this is lower.

Electric actuators. baelz 340-2-B/340-BB, 340-2-BK/340-BBK, 340-2-BK-SS/340-BBK-SS. Plug closes against the flow.

Actuator baelz 373-	Force (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- OSX-	700	14,5	14,5	10	4,8	2,4	1,1	0,3							
E07- 20-	2000	40	40	32	20	12	8	4,8	3	2	1,2				
E65- 11-	1100	26,8	26,8	19	10	5,6	3	1,4	0,7	0,2					
E65- 20-	2000	40	40	32	20	12	8	4,8	3	2	1,2				
E45- 40-	4000	40	40	40	40	25	16	10	6,9	4,4	2,8	1,7			
E66- 80-	8000							23,8	15,1	9,3	5,7	3,1	1,6	0,9	
E66- 150-	15000								28,3	17,9	11,3	7,1	3,8	2,3	1,5
E88- 100-	10000							28	18	11	7,4	5	2,4	1,7	1,1
E88- 100-	13000							37	24	15	9,8	6,7	3,3	2,3	1,5
E88- 100-	16000							40	30	19	12	8,4	4,5	2,9	2
E88- 300-	30000									(36)	(23)	15,3	9	5,8	3,9
E88- 300-	35000											18,9	10,5	6,7	4,6
E88- 300-	40000											21,7	12,1	7,7	5,3

Balanced 2-way valves for liquids and steam baelz 340-B-EMF-2, 340-BB-EMF. Plug closes against the flow.

Actuator baelz 373-	Force (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- OSX-	700					40	40	40	40	40	40				
E07- 20-	2000					40	40	40	40	40	40				
E65- 11-	1100					40	40	40	40	40	40	7,9			
E65- 20-	2000					40	40	40	40	40	40	16,2			
E45- 40-	4000					40	40	40	40	40	40	34,6			
E66- 80-	8000											40	40	9,7	6,3
E66- 150-	15000											40	40	29,1	22,1
E88- 100-	10000											40	40	16,1	11,5
E88- 100-	13000											40	40	23,9	17,9
E88- 100-	16000											40	40	31,7	24,2
E88- 300-	30000											40	40	40	40
E88- 300-	35000											40	40	40	40
E88- 300-	40000											40	40	40	40

Electric actuators. 2-way and 3-way valves. Plug closes with the flow.
baelz 340, 342, 347, 365, 367

Actuator baelz 373-	Force (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- OSX-	700	16	16	12,5	7,5	4,8	3,0	1,8	1,2	0,7	0,5				
E65- 11-	1100	25,9	25,9	20	12,1	7,7	5,0	2,9	1,9	1,2	0,8				

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Maximum differential pressure ΔPmax (bar) at which the actuator closes the valve completely
The differential pressures specified here are limited by the nominal pressure of the valve bodies, if this is lower.

2-way valves: baelz 340-2-B/340-BB, 340-2-BK/340-BBK, 340-2-BK/340-BBK-SS
Pneumatic actuators (OPG) closed without compressed air. Plug closes against the flow.

Actuator		Force	oper. press.	DN (mm) / maximum differential pressure ΔPmax (bar)													
baelz 373-		(N)	(bar)	15	20	25	32	40	50	65	80	100	125	150	200	250	300
P11-	1	950	4,0	39,5	18,2	13,6	8,1	4,3	2,4	1,1	0,5						
P21-	3	1020	1,2	29	29	16	9,9	6,3	4,6	2,7	1,8	1	0,6				
P21-	6	2040	3,0	40	40	35	21	13,5	8,9	5,2	3,4	2,2	1,4				
P21-	12	3390	6,0	40	40	40	36	23	14	8	5	3,5	2,1				
P21-	18	4030	6,0	40	40	40	40	27	18	10	7	4,5	2,8				
P21-	V6	7590	6,0	40	40	40	40	40	34	20	13	8	5				
P22-	3	1846	3,0	40	40	34,5	18,8	11	6,5	3,4	2	1,1	0,5				
P22-	6	3692	6,0	40	40	40	40	25,2	15,3	8,5	5,3	3,2	1,9				
P31-	3	2480	3,0											0,7			
P31-	6	4960	3,0											2,1			
P31-	18	10560	6,0											5,2			
P32-	6	4402	3,0												0,8	0,4	0,3
P32-	18	8115	6,0												2,0	1,2	0,8

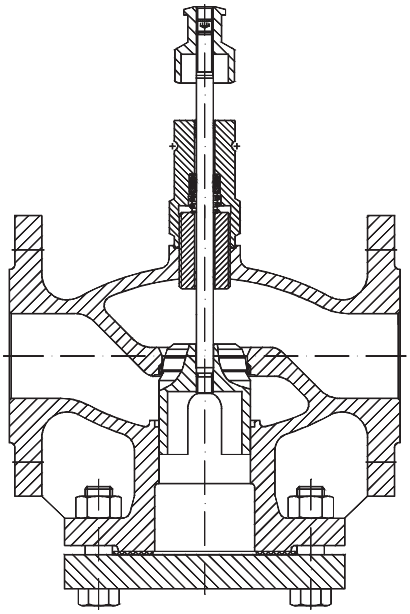
2-way valves: baelz 340-2-B/340-BB, 340-2-BK/340-BBK, 340-2-BK/340-BBK-SS
Pneumatic actuators (OPO) open without compressed air. Plug closes against the flow.

Actuator		Force	oper. press.	DN (mm) / maximum differential pressure ΔPmax (bar)													
baelz 373-		(N)	(bar)	15	20	25	32	40	50	65	80	100	125	150	200	250	300
P11-	1	2111	6,0	40	40	40	29,2	17	10,5	5,8	3,7						
P21-	3	2520	1,2	7	7	4,5	2,8	1,8	1,1	0,6	0,4						
			3,0	40	40	40	40	31	19	12	8	5	3				
			6,0	40	40	40	40	40	40	30	20	12	8				
P21-	6	5040	3,0	40	40	35	21	14	8	5,3	3,5	2,2	1,4				
			6,0	40	40	40	40	40	39	24	16	10	6				
P31-	3	6120	1,2											0,6			
			3,0											6			
			6,0											14,8			
P31-	6	12240	3,0											3			
			6,0											12			
P32-	6	14776	3,0												0,7	0,3	0,2
			6,0												6,7	4,1	2,8
P32-	18	27241	6,0												2,7	1,6	1,1

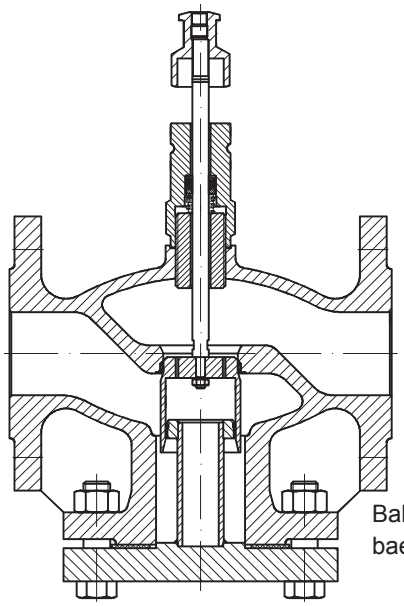
Balanced 2-way valves for liquids and steam: baelz 340-2-B-EMF, 340-BB-EMF
Pneumatic actuators (OPG) closed without compressed air. Plug closes against the flow.

Actuator		Force	oper. press.	DN (mm) / maximum differential pressure ΔPmax (bar)													
baelz 373-		(N)	(bar)	15	20	25	32	40	50	65	80	100	125	150	200	250	300
P11-	1	950	3,0					40	40	40	40						
P21-	3	1020	1,2					40	40	40	40						
P21-	6	2040	3,0					40	40	40	40	40	40				
P22-	3	1846	3,0					40	40	40	40	40	40	14,8			
P22-	6	3692	6,0					40	40	40	40	40	40	31,7			
P31-	3	2480	3,0											25,9			
P31-	6	4960	3,0											40			
P31-	18	10560	6,0											40			
P32-	6	4402	3,0												33,8	1,6	
P32-	18	8115	6,0												40	11,2	7,5

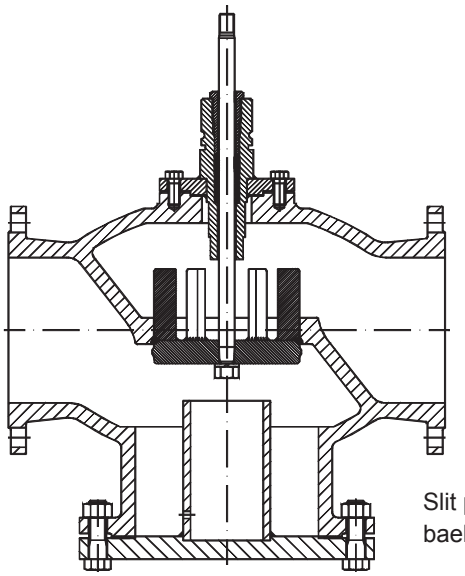
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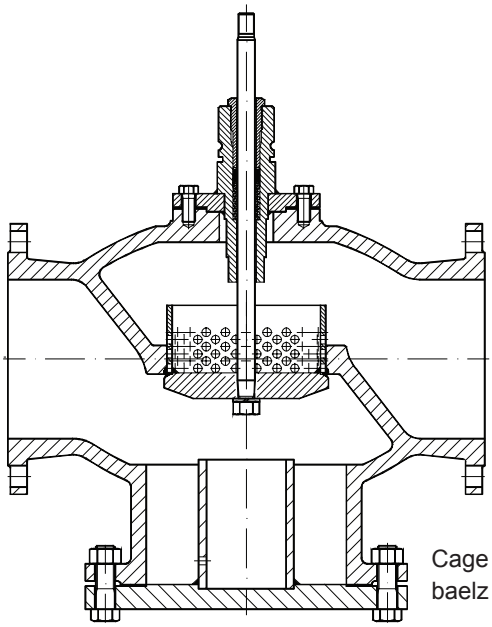
Standard:
baelz 340-2-B parabolic
plug with slot guides



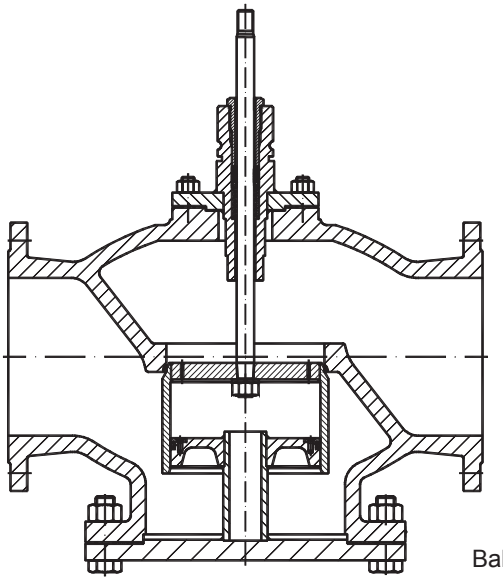
Balanced plug
baelz 340-B-EMF-2



Slit plug
baelz 340-BB



Cage plug
baelz 340-BB-LK



Balanced plug
baelz 340-BB-EMF

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