



baelz 591

DESCRIPTION

The baelz 591 is a steam-water ejector (desuperheater) with flange connection for saturated steam generation and superheated steam cooling.

Housing: GJS-400-18-LT - 5.3103 / GP240GH - 1.0619 (PN 40)
 Plug spindle and nozzle: stainless steel

TECHNICAL SPECIFICATIONS

The plug type and the control characteristic are designed and manufactured to order.

Saturated steam generator with high control quality for load $\approx 2 - 100\%$

Spindle seal: V-rings in PTFE

- Option: baelz 591-K - with cooling tube (MP591-stem-Ø-K)

Working fluids: steam / water

Leakage class (EN 1349)

metal-to-metal seal: 0.004% Kvs (better than class IV)

Stroke (mm)

DN 32 - DN 80

DN 100 - DN 125

\geq DN 150

22 / 40 mm

44 / 66 mm

Spindle Ø (mm)

10mm

16 mm

22mm

Designation	Nominal pressure	Housing material	Nominal diameter	Connection
baelz 591	PN 16 PN 25	GJS-400-18-LT - 5.3103	DN 32 - DN 200 (up to DN 400 on request)	Flange (Special model to EN 1092-1 Shapes D / E / F on request)
	PN 40 (to PN 160 on request)	GP240GH - 1.0619		

T max. (°C) / P max. (bar)*			
Housing material	GJS-400-18-LT - 5.3103		GP240GH - 1.0619
Nominal pressure	PN 16	PN 25	PN 40
baelz 591 DN 32 - DN 200	240/12.3 ... 50/16	240/19.3 ... 50/25	240/30.9 ... 50/40
baelz 591-K DN 32 - DN 200	350/10.2 ... 50/16	350/16 ... 50/25	350/25.7 ... 50/40

* Higher temperatures of the working fluids to approx. 400°C on request

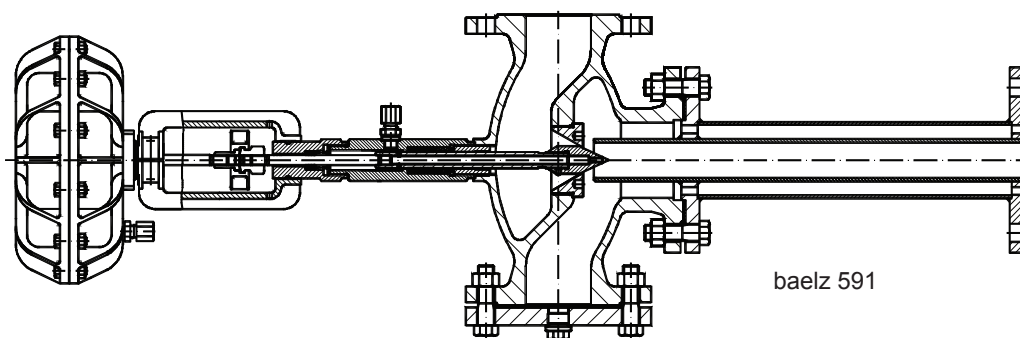
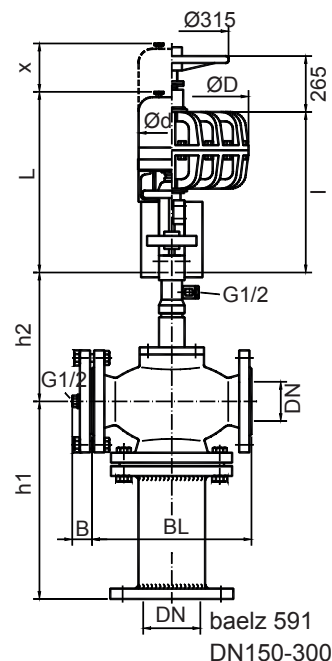
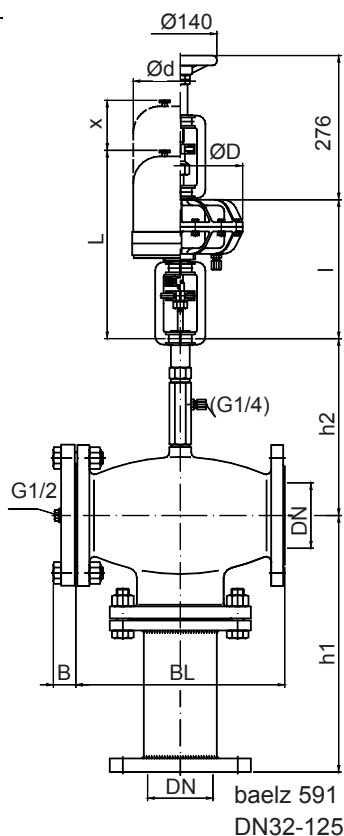
Approximate weights of the baelz 591 ejector (kg)									
DN	32	40	50	65	80	100	125	150	200
Spheroidal ductile iron	17	21	28	45	56	75	115	160	315
Steel	19	23	30	47	58	77	117	163	320

Dimensions of the baelz 591 DN 32-125 (mm)					
DN	BL	h1	h2		B
			591	591-K	
32	180	175	254	488	33
40	200	222	264	498	33
50	230	283	274	508	35
65	290	469	294	528	37
80	310	576	304	538	39
100	350	737	319	553	39
125	400	797	339	573	43

Dimensions of the baelz 591 DN 150-200 (mm)							
DN	BL	B			h1		h2
		PN16	PN25	PN40	591	591-K	
150	480	37	45	45	1116	450	434
200	600	39	47	53	1357	560	458

Dimensions of the Baelz actuators (mm)						
	L	x	Ød	l	ØD	
E07	320	145	129			
E45	560	150	175			
P11				244	160	
P21				268	242	
P21-V6				304	242	
P22				322	242	
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

* with manual operation



The differential pressures specified here are limited by the nominal pressure of the valve body, if this is lower.

Electric actuators. baelz 591. Plug closes in direction of flow.

Actuator	Power (N)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)																	
		≤ 12.5	16	20	23	25	30	32	37	40	47	50	60	65	80	90	100	120	
E07-	2000	181	75	47	36	30	21	18	14	13	9.7	8.5	5.9						
E45-	4000			97	73	62	43	38	29	27	19	17	12	11					

Pneumatic actuators. baelz 591. Plug closes in direction of flow.

Actuator	Power (N)	req. feed pressure (bar)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)																
			≤ 20	23	25	30	32	37	40	47	50	60	65	80	90	100	120		
P21- 3-	1020	3.0	141	106	90	63	56	42	40	29	25	17							
P21- 6-	2040	3.0	123	93	79	55	49	37	35	25	22	15							
P21- 6-	2040	6.0	294	223	189	133	117	89	83	60	53	36							