

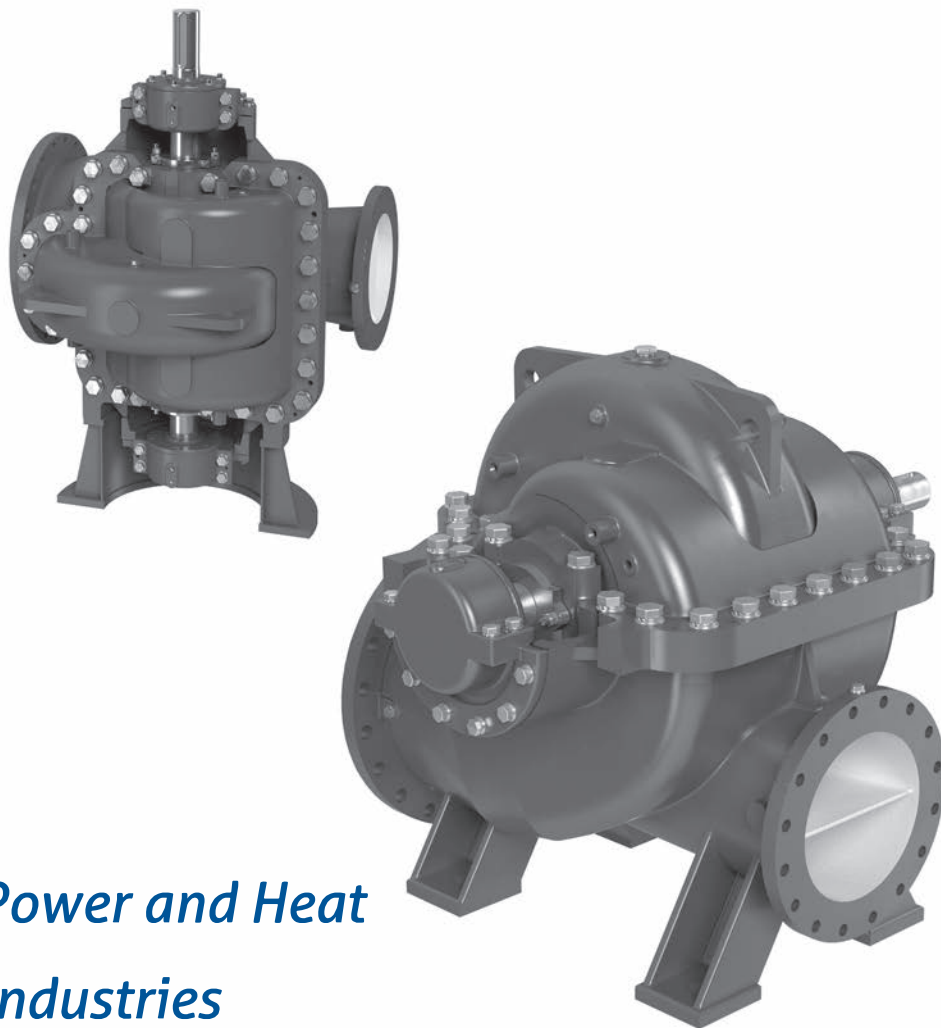


Grupa Powen-Wafapomp SA

## HOT WATER PUMPS

# B BV

B and BV pumps are designed as horizontal splitcasing centrifugal, double suction pumps with closed impellers



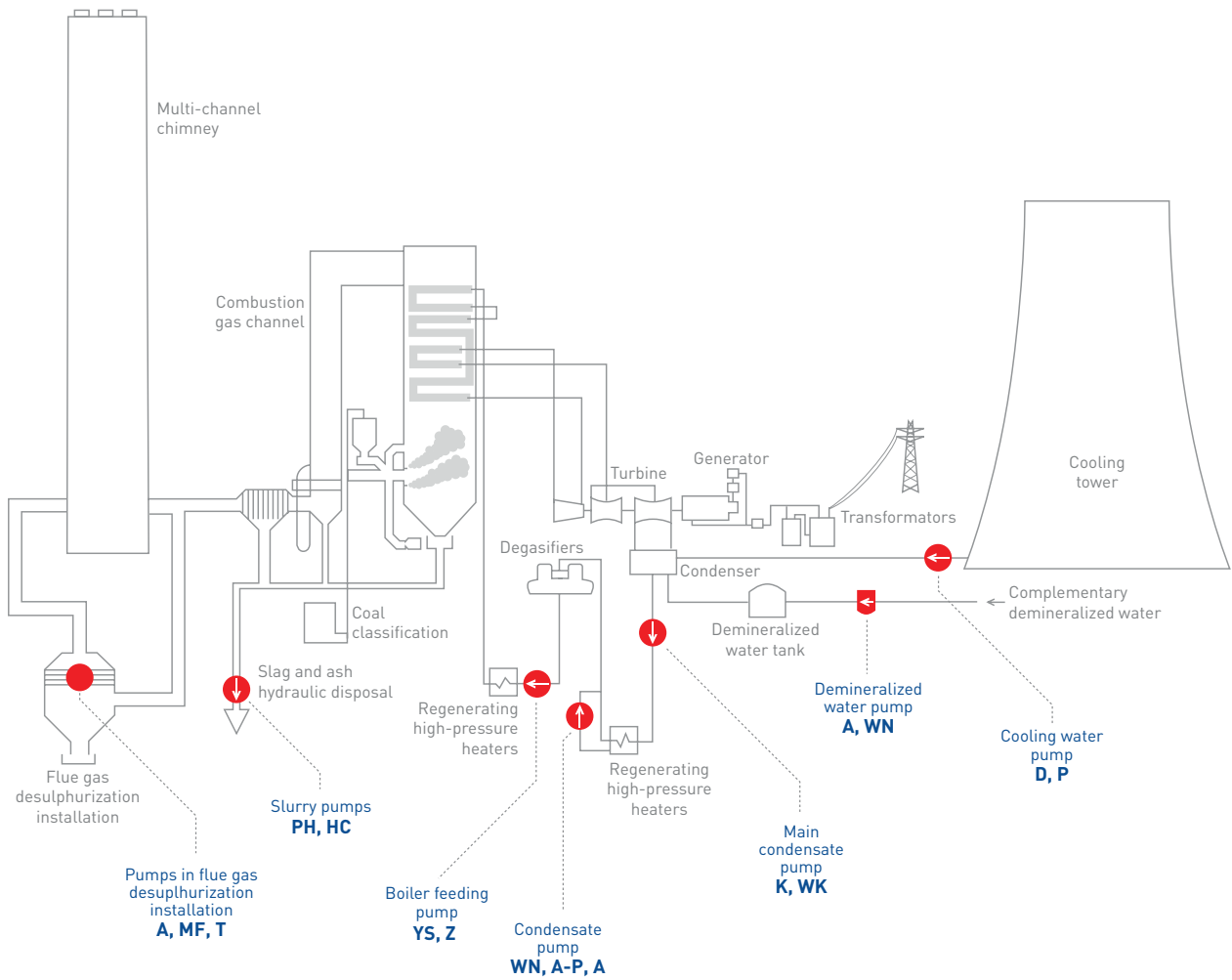
***Pumps for Power and Heat  
Supplying Industries***

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## PUMPS IN A POWER PLANT AND HEAT GENERATING PLANT

examples of application



## APPLICATION

The B and BV pumps are designed to handle hot, clean and slightly contaminated water. They can be applied in water supply systems, industrial cooling systems, and, for the ability to pump hot water, in district heating and power plants.

## DESIGN

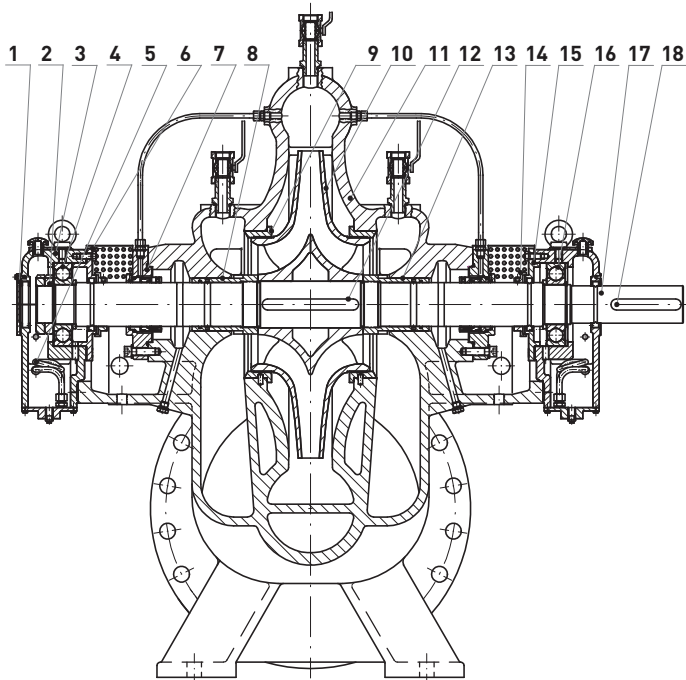
Stationary, horizontal, double suction, horizontally split pumps. The suction and delivery flanges are arranged horizontally in-line. The upper part of the casing can be lifted and the entire rotating assembly can be taken out for repair without disconnecting the pump from the pipelines. The oil-lubricated roller bearings and the mechanical seals installed on both sides of the shaft are equipped with cooling chambers, so the pumps are able to handle hot fluids.

BV pumps are a vertical version of B pumps. They are based on the same hydraulics.

## MATERIALS OF CONSTRUCTION

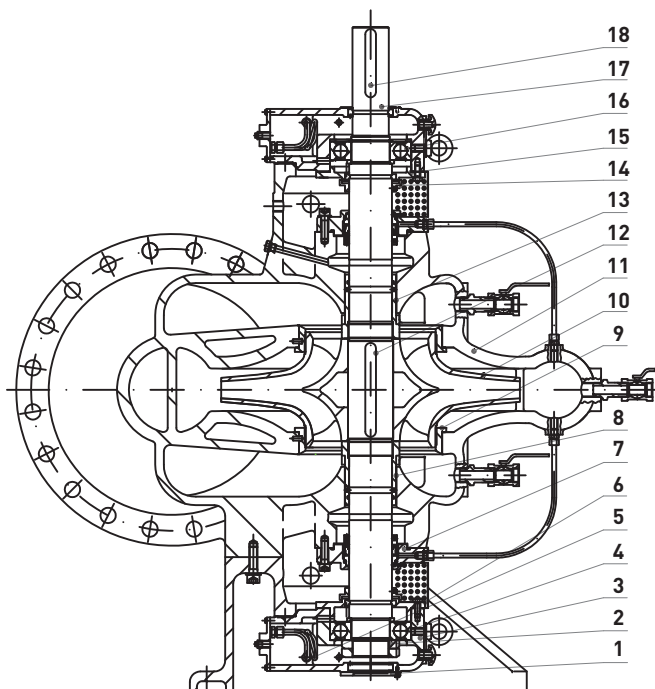
The casings are made of cast iron or, for higher heads, of cast steel. The impellers are of cast iron or stainless chromium cast steel.

### CROSS-SECTION / LIST OF B PUMP PARTS



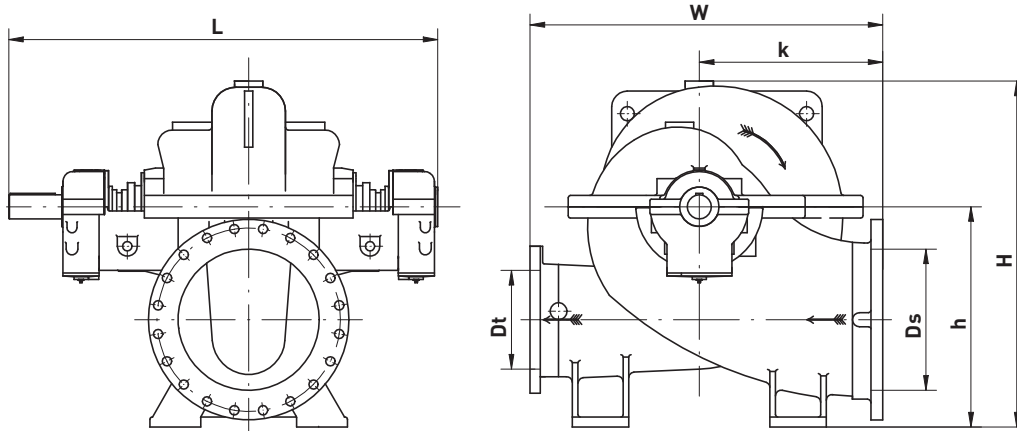
No.	Part name
1	Bearing housing cover
2	Nut
3	Bearing housing
4	Bearing
5	Cooler
6	Thrust Thrust bearing cover
7	Mechanical seal
8	Gland seal
9	Seal ring
10	Impeller
11	Casing
12	Key groove
13	Left gland sleeve
14	Expeller
15	Radial bearing cover
16	Bearing
17	Shaft
18	Key groove

### CROSS-SECTION / LIST OF BV PUMP PARTS



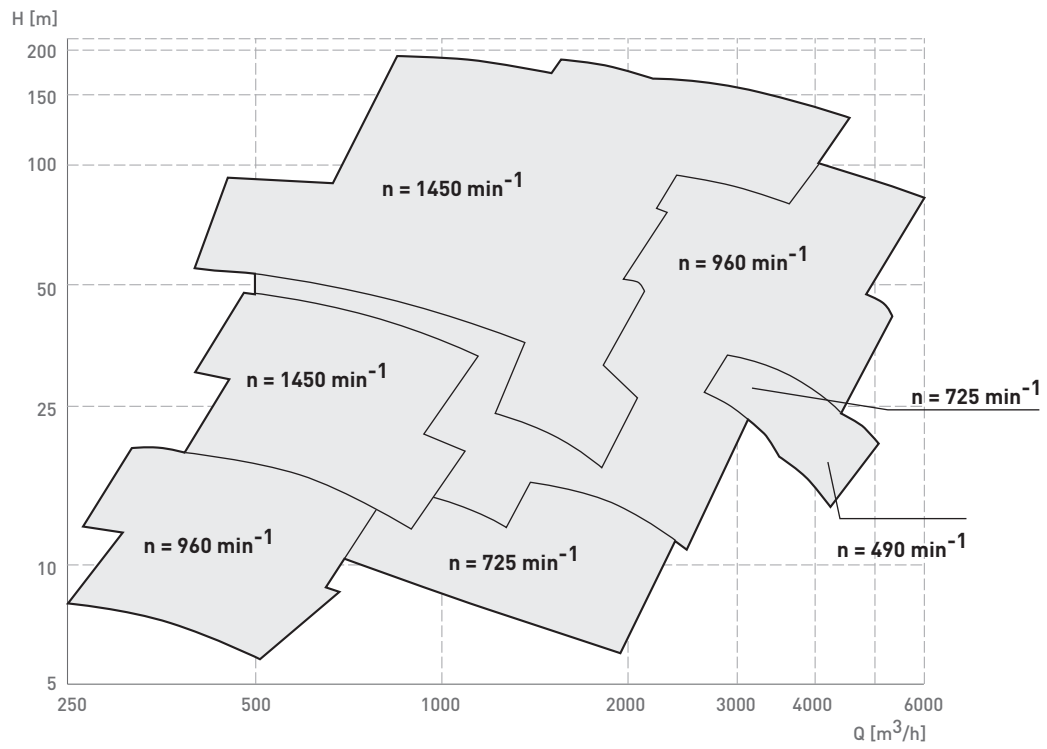
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14	Expeller
15	Radial bearing cover
16	Bearing
17	Shaft
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## DIMENSIONS



Pump type	Dimensions [mm]							Weight m [kg]
	L	W	k	H	h	Ds	Dt	
20B47	1060	1000	500	930	560	250	200	1150
25B32	1165	870	470	910	580	350	250	850
25B35	1040	950	550	805	520	300	250	730
25B50	1380	970	500	975	610	350	250	890
30B30	1165	870	470	875	560	350	300	880
30B46	1215	1200	600	1030	630	350	300	1135
30B50	1380	1200	600	1135	720	400	300	1250
30B52	1415	1150	500	1015	630	350	300	1170
30B70	1520	1250	650	1290	800	400	300	1680
35B35	1520	1150	600	940	600	400	350	1170
35B40	1520	1210	650	1215	780	500	350	1500
35B50	1520	1250	650	1225	780	500	350	1520
35B63	1520	1250	650	1340	850	500	350	1730
40B36	1655	1230	680	1115	735	500	400	2100
40B40	1520	1350	750	1295	820	500	400	1720
40B49	1336	1600	800	1290	800	450	400	2355
40B50	1520	1310	710	1370	860	500	400	1750
40B61A	1960	1680	830	1310	800	500	400	2860
40B63	1584	1760	880	1345	800	500	400	2660
40B80	2080	1800	900	1540	950	600	400	3920
50B40	1785	1560	850	1490	950	600	500	2470
50B50	1820	1650	900	1490	960	600	500	2880
50B50D	1615	1750	750	1290	800	600	500	2750
50B50F	1615	1750	750	1290	800	600	500	1750
50B52A	1060	1930	930	1250	850	600	500	2800
50B63	1785	1700	850	1520	950	600	500	2780
50B80	2015	2000	1000	1770	1100	700	500	4015
60B63A	2015	1900	950	1670	1050	700	600	3200
70B90	2800	2900	1300	2700	1800	900	700	~5500

## RANGE OF OPERATION



## NOMINAL PARAMETERS

Pump type*	725 [rpm] /(490 [rpm] 70B90 only)			960 [rpm]			1450 [rpm]		
	Capacity Q [m <sup>3</sup> /h]	Head H [m]	Shaft power P [kW]	Capacity Q [m <sup>3</sup> /h]	Head H [m]	Shaft power P [kW]	Capacity Q [m <sup>3</sup> /h]	Head H [m]	Shaft power P [kW]
20B47	-	-	-	343	28	35	510	62	116
25B32	-	-	-	600	18,5	38	900	42	123
25B35	-	-	-	400	15	19	600	34	66
25B50	-	-	-	-	-	-	900	80	242
30B30	-	-	-	600	10,5	21,5	900	24	72
30B46	-	-	-	545	29	54	810	65	172
30B50	-	-	-	-	-	-	1250	90	360
30B52	-	-	-	600	40	83	1000	89	304
30B70	-	-	-	940	68	212	1400	150	690
35B35	-	-	-	940	15	47	1400	33	152
35B40	-	-	-	1250	26	108	2000	60	380
35B50	-	-	-	1250	40	162	2000	90	570
35B63	-	-	-	1600	65	341	2400	152	1170
40B36	-	-	-	1010	16	56	1500	36	183
40B40	1250	15	61	2000	26	167	-	-	-
40B49	-	-	-	968	32	106	1440	70	335
40B50	-	-	-	2000	50	320	-	-	-
40B61A	-	-	-	2220	63	448	3300	140	1448
40B63	1345	24	107	2000	52	337	-	-	-
40B80	2260	49	355	3000	86	809	-	-	-
50B40	2300	12,5	94	3000	22	212	-	-	-
50B50	2110	10	70	2800	18	162	-	-	-
50B50D	-	-	-	1614	28	150	2400	61	480
50B50F	-	-	-	1735	33	192	2580	74	627
50B52A	2260	15	108	3000	26	247	-	-	-
50B63	-	-	-	3000	60	570	-	-	-
50B80	3800	50	623	5000	90	1442	-	-	-
60B63A	3800	36	443	5000	62	985	-	-	-
70B90	4400	24	338	-	-	-	-	-	-

\* All sizes of B pumps are also available in BV version

The parameters are specified for clean water of density  $\rho = 1000 \text{ kg/m}^3$  and temperature  $T = 15^\circ\text{C}$ .