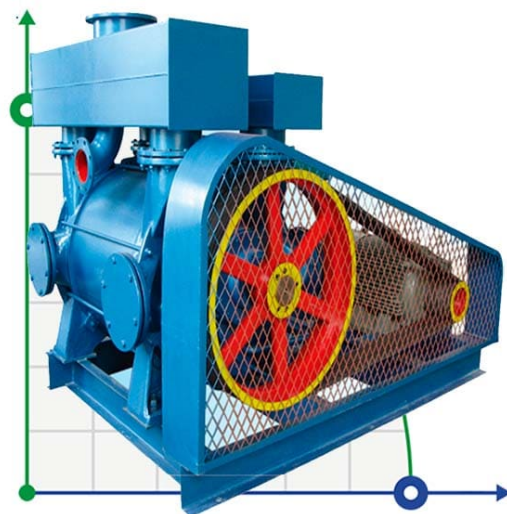


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## Catalog 2BE series water ring vacuum pumps and compressors

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## 2BE series water ring vacuum pumps and compressors

### Usage and characteristics

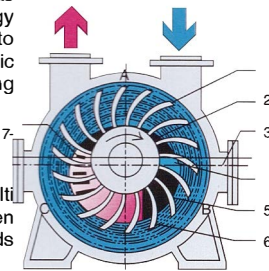
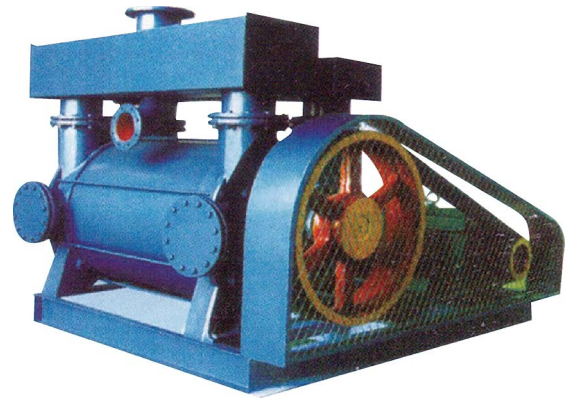
2BEA series water ring vacuum pumps and compressors, which is a series of high efficiency and energy saving products, is developed on the our company's years of work experience and achievements in scientific research basic, combining the advanced international experience of similar products. It's used to pumping Insoluble in water non corrosive air without solid particles to form pressure or vacuum in confined space. By changing materials and structure, it can also be used to pumping corrosive air or use corrosive liquid as the working fluid. It's widely used at paper-production, chemistry-industry, light industry, petrification, pharmaceuticals, food-production, building material, electrical equipment, coal washing, ore dressing, fertilizer and many other areas. Particularly, in coal industry, this type can pump highly flammable and explosive gas like methane, so it can be designed to install ground gas pumping station, or match mobile gas drainage system.

This series uses single stage single series structure, with advantages like reliable operation, simple structure, simple repair, high efficiency and energy saving. It will adapt large drainage volume and shock wave and other poor conditions.

We conducted a systematic optimization design to the key components, such as distribution board, impeller and pump spindle. Simpler structure leads to energy saving and higher efficiency. We choose welding impeller using once stamping to form. Molded lines are reasonable. Hubs are all processed, solving the dynamic balance problem fundamentally. Impellers and pump spindles use heating interference coordination, steady and reliable. After welding, impellers undergo heat treatment well totally, bringing impellers good toughness, so they are anti bending and shocking, can adapt many poor conditions.

2BEA series equips the gas water separator, have suctions and exhausts in multi positions, and exhaust valve repair window on the pump cover. The gap between the impeller and distributing plate is adjusted by glands on both ends of the location bearing. It's very easy to install, operate and repair.

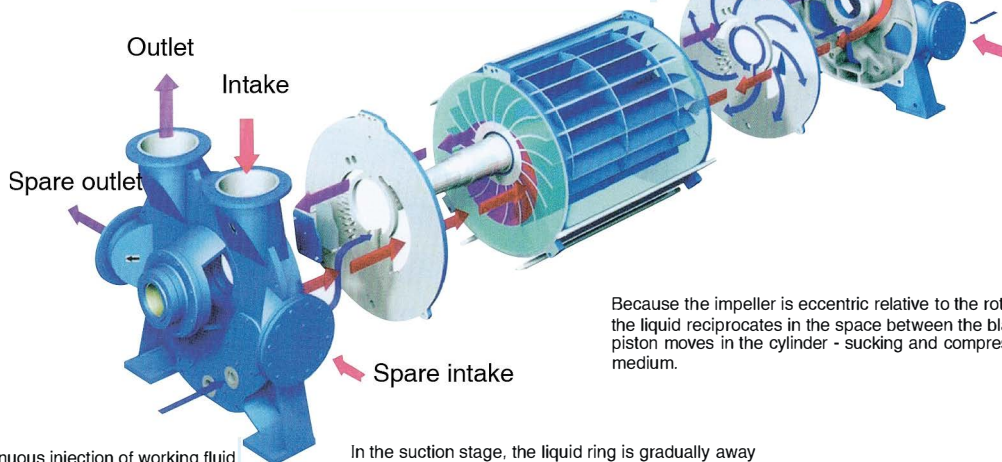
Our company's pumps are all after testing center's strict testing, Superior performing and safe working.



1. Impeller
2. Wheel boss
3. Pump body
4. Air cavity
5. Suction hole
6. liquid(water)
7. Flexible vent

### Decomposition structure diagram

The impeller, the only rotating component installed eccentrically with the pump body, rotates to form a liquid ring in the elliptical pump body. The working fluid acts as sealing medium, compressing medium and cooling medium at the same time.



Continuous injection of working fluid is used to compensate for the liquid taken away by the exhausted gas.

In the suction stage, the liquid ring is gradually away from the hub, and the pumping medium is sucked from the suction port along the axis.

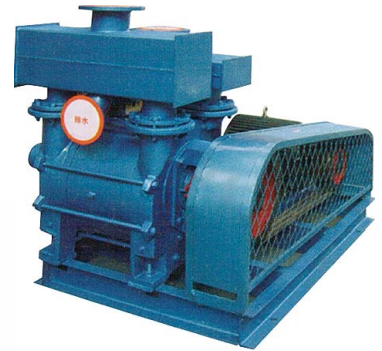
During the exhaust phase, the liquid ring gradually approached the hub and discharged the pumping medium from the outlet along the axis.

Because the impeller is eccentric relative to the rotating liquid ring, the liquid reciprocates in the space between the blades, just as the piston moves in the cylinder - sucking and compressing the pumping medium.

## 2BEA series water ring vacuum pumps and compressors

### 2BE series water ring vacuum pumps and compressors

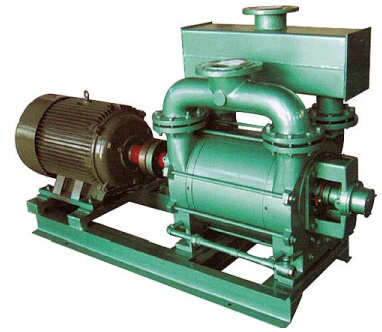
2BEA series products have the characteristics of strong suction capacity under relatively high vacuum. They are usually used to suck and compress gases without solid particles, insoluble in water and non-corrosive. They are ideal for papermaking, chemical industry, pharmaceuticals, petroleum, light industry, food, metallurgy, building materials, electrical appliances, coal washing, mineral processing, chemical fertilizer and other industries vacuum acquisition equipment.



### 2BEA Series Main Technical Parameters

Model	Absolute pressure (hPa)	Speed (r.p.m)	Power (kw)	Pumping speed (m <sup>3</sup> /min)								Weight (kg)
				Pressure 60hpa		Pressure 100hpa		Pressure 200hpa		Pressure 400hpa		
				Air	Saturated air	Air	Saturated air	Air	Saturated air	Air	Saturated air	
2BEA-103-0	33	1300	11	2.8	3.95	3.77	4.58	4.47	4.87	4.83	4.93	125
		1450	11	3.18	4.52	4.22	5.13	5.1	5.53	5.38	5.5	
		1625	15	3.87	5.47	4.9	5.97	5.83	6.33	6.1	6.23	
		1750	15	4.32	6.1	5.33	6.5	6.28	6.83	6.57	6.7	
2BEA-153-0	33	1100	15	4.15	5.67	5.6	6.77	6.7	7.33	7.2	7.33	190
		1300	18.5	5.37	7.58	6.87	8.35	8.22	8.93	8.6	8.8	
		1450	18.5	6.33	8.95	7.83	9.52	9.22	10	9.62	9.82	
		1620	22	7.22	10.2	8.72	10.6	10.1	11	10.6	10.8	
2BEA-202-0	33	790	18.5	6.6	9.3	8.8	9	9.2	9.7	9.5	9.8	450
		880	18.5	7.8	10.2	9.7	10.3	10.6	11.1	10.9	12.2	
		980	22	8.4	11.9	11.4	11.6	11.6	12.8	12.2	12.6	
		1100	30	9.6	12.9	12.4	12.7	13.6	14.1	13.8	14.2	
		1170	30	10.2	13.6	13.1	13.6	13.9	15.1	14.5	14.8	
2BEA-203-0	33	790	30	8.25	11.6	11.1	13.5	13.4	14.5	14.3	14.6	510
		880	30	9.7	13.5	12.7	15.4	15.3	16.6	16.1	16.4	
		980	37	13.6	18.5	16.5	14.4	19	19.7	19.4	20	
		1100	45	13.5	19	16.4	19.7	19.2	20.9	20	20.4	
		1170	45	14.4	20.3	17.4	21.1	20.1	21.8	21	21.4	
2BEA-252-0	33	565	30	10.2	15.3	14.1	16.6	19.2	20.9	20.1	20.5	910
		590	30	11.6	16.4	15.3	17.5	20.1	21.8	21.1	21.5	
		660	37	15.5	22.4	20.7	22.1	24.2	26.5	25.2	25.7	
		740	45	17.7	24.9	22.6	23.9	26.4	28.7	27.5	28.3	
		820	55	19.4	28.5	26.3	28.2	29.5	29.8	30.3	30.8	
		880	75	21.7	30.5	28.7	29.8	31.1	31.8	32.6	33.3	
2BEA-253-0	33	565	45	14.1	20	19.5	23.8	25.6	28.1	28.3	28.3	1040
		590	55	15.1	21.8	20.4	24.8	26.7	29	29.5	30.1	
		660	55	20.1	28.4	25.8	31.3	31.9	34.6	34.3	35.1	
		740	75	24.3	34.3	30.3	36.8	36.5	39.6	38.3	39.6	
		820	90	27.9	39.3	34.2	41.5	40.6	44.1	42.9	43.7	
		880	90	30.2	42.6	36.7	44.7	43.5	47.2	45.8	46.7	
2BEA-303-0	33	472	55	24.3	34	31.3	38.5	38.9	42.5	41	41.8	1500
		520	75	27.6	38.5	34.2	41.5	40.3	44.3	42.5	43.5	
		530	75	30.8	42.8	37.1	45	13.3	47.3	45.7	46.6	
		590	75	35.8	49.9	42.6	51.6	48.8	53.3	50.3	51.3	
		660	90	40.5	57.5	48.7	59	55	60	57	58	
		740	110	42.5	60	51.8	62.7	58.3	63.5	61.6	62.8	
2BEA-353-0	33	372	75	26.5	37.4	39.3	46.4	49	53.5	53.8	54.9	2000
		420	90	35.8	50.6	45.3	54.9	53.8	58.6	57.2	58.4	
		464	110	43.6	61.5	52.8	63.9	61	66.5	63.7	65	
		490	110	46.5	65.6	55.7	67.6	63	68.7	66.4	67.7	
		500	132	46.6	65.8	56.3	68.2	65	70.9	67.6	69	
		530	132	49.5	69.9	60.1	72.8	68.5	74.7	71.5	73	
		50	160	56.7	80	68.4	82.8	77	84	80.2	81	

## 2BEA series water ring vacuum pumps and compressors



### 2BE series water ring vacuum pumps and compressors

2BEA series products have the characteristics of strong suction capacity under relatively high vacuum. They are usually used to suck and compress gases without solid particles, insoluble in water and non-corrosive. They are ideal for papermaking, chemical industry, pharmaceuticals, petroleum, light industry, food, metallurgy, building materials, electrical appliances, coal washing, mineral processing, chemical fertilizer and other industries vacuum acquisition equipment.

### 2BEA Series Main Technical Parameters

Model	Absolute pressure (hPa)	Speed (r.p.m)	Power (kw)	Pumping speed (m3/min)								Weight (kg)
				Pressure 60hpa		Pressure 100hpa		Pressure 200hpa		Pressure 400hpa		
				Air	Saturated air	Air	Saturated air	Air	Saturated air	Air	Saturated air	
2BEA-403-0	33	330	132	44.8	63.3	60	72.5	73.7	80.4	78.5	80	3300
		372	160	57.4	81	70.6	85.5	82.1	89.6	85.5	87.6	
		420	185	67.3	95	81.4	98.5	93.5	102	97	99	
		472	200	78.7	110	95	115	107.2	116.8	110	120	
		530	250	85.1	120	103	125	117.1	127.6	123.5	126	
2BEA-355-0	160	372	90	52.2	57	56	59.2	59.6	61.4	60.2	62.1	2200
		420	110	63.8	69.6	66.3	70.3	69.1	71.2	70.1	71.5	
		472	110	70.3	76.7	73.6	78.3	76.7	79.1	78.2	79.8	
		500	132	73.4	80	77.3	82	80.6	83.1	82.5	84.2	
		530	132	76.3	83.2	80.6	85.5	85.4	88	86.6	88.3	
2BEA-405-0	160	330	132	81.2	88.6	85.7	91	90.6	93.4	92.3	94.2	3400
		372	160	84.5	103	98.5	104.5	103.4	106.5	104.7	106.8	
		420	185	104.5	114	109.5	116.3	115.2	118.7	116.3	118.7	
		472	220	111.7	121.8	118.7	125.8	126.2	130	128.2	130.8	
		530	280	120.2	131.1	127.3	135	136.8	141	141	143.7	
2BEA-505-0	160	266	160	104.5	114	110	116.4	117.1	120.7	120	122.5	5100
		298	185	123.4	134.5	129.2	137	125.2	139.3	136.4	139.1	
		330	220	136.5	148.8	142.6	151.2	149	153.5	151	154	
		372	250	148.6	162	156	165.5	164.4	169.4	167	170.3	
		420	315	159.7	174.1	169.5	179.7	180.5	186	184.7	188.3	
2BEA-605-0	160	220	220	146	158	153	162	163	168	164	164	7900
		236	220	158	172	166	176	176	181	177	181	
		246	250	166	180	173	184	183	188	185	189	
		266	280	183	200	192	203	200	206	202	206	
		276	280	188	203	196	207	205	210	207	210	
		298	315	201	219	210	223	221	228	224	229	
		312	355	207	224	216	229	228	234	232	236	
2BEA-705-0	160	197	355	230	250	240	256	251	259	255	259	11500
		220	400	255	276	265	280	278	286	282	287	
		246	450	283	307	293	310	309	318	312	318	
		266	500	300	325	313	332	332	342	337	343	
		276	560	310	336	323	342	352	352	347	353	

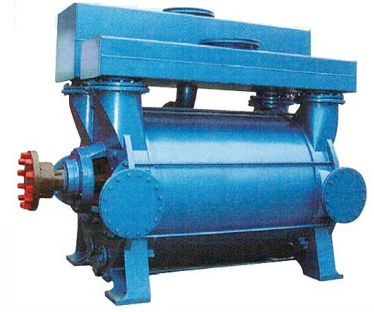
1. The data is listed in the table in the condition that air temperature of 20°C, the water temperature of 15°C, exhaust pressure 1013 hpa, suction medium for saturated air.

2. The pump performance tolerances  $\pm 10\%$

3. The motor power which is equipped with power, users have special requirement, please explain it when ordering.

4. Some pumps, such as 2BEA-355-1 can be refit to the structure that pump body is with partition board, not changing installation size, but can work under different inhalation absolute pressure on both sides of the pump body.

## 2BEC series water ring vacuum pumps and compressors



2BEC series products have been fully considered in the design that it must be able to extract a variety of gases. It has been widely used in papermaking, coal mine, power plant, vacuum filtration, chemical industry, petrochemical, food processing and other industries.

### 2BEC Series Main Technical Parameters

Model	Absolute pressure (hPa)	Speed (r.p.m)	Pumping speed (m <sup>3</sup> /min)	Power (kw)	Drive style	Voltage (V)	Intake diameter (mm)	Outlet diameter (mm)
2BEC-400	160	300	68	75	Belt	380	300	300
		232	80	90	Reducer or belt	380		
		267	85	110		380		
		393	92	110		380		
		449	110	132		380		
2BEC-420	160	300	90	110	Reducer or belt	380	300	300
		330	110	132		380		
		360	120	132		380		
		390	126	160		380		
		420	134	185		380		
2BEC-500	160	242	125	160	Reducer or belt	380	350	350
		266	145	185		380		
		294	165	200		380		
		336	190	250		6KV		
2BEC-520	160	372	210	280	Reducer or belt	6KV	350	350
		236	150	185		380		
		266	165	200		380		
		294	205	250		6KV		
		336	235	280		380		
2BEC-600	160	336	250	315	Reducer or belt	380	350	350
		200	180	185		380		
		236	210	250		6KV		
		266	240	280		6KV		
		294	260	315		6KV		
2BEC-620	160	336	285	350	Reducer	6KV	400	400
		200	220	220		6KV		
		236	255	280		6KV		
		266	290	350		6KV		
		294	320	400		6KV		
2BEC-670	160	336	360	450	Reducer	6KV	400	400
		170	305	315		6KV		
		200	370	400		6KV		
		236	440	450		6KV		
		266	500	560		6KV		
2BEC-720	160	294	560	630	Reducer	6KV	500	500
		210	400	450		6KV		
		240	450	560		10KV		
		270	500	630				
		300	560	710				
		340	620	900				

1.The data is listed in the table in the condition that air temperature of 20°C, the water temperature of 15°C, exhaust pressure 1013 hpa, suction medium for saturated air.

2.The pump performance tolerances  $\pm 10\%$

3.The motor power which is equipped with power, users have special requirement, please explain it when ordering.