FIRST PUMP 石家庄第一水泵厂有限公司

Shijiazhuang First Pump Factory Co., Ltd

Corrosion & Wear Resistant

UHB-ZK Series Mortar Pumps

Operation Instruction

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Overview

This series of pumps are single-stage single-suction cantilever centrifugal pumps. The flow-through parts are made of steel-lined ultra-high molecular weight polyethylene (UHMWPE).

This material is the current new generation of corrosion-resistant and wear-resistant engineering plastics for pumps in the world. Its most outstanding advantage is that it has excellent wear resistance, impact resistance (especially low-temperature impact resistance), creep resistance (environmental stress cracking resistance) and excellent corrosion resistance among all plastics.

The remarkable features of this pump are: multi-function, that is, one pump can adapt to various working conditions. Such as conveying acid, alkaline clear liquid or slurry; various corrosive slurries in the smelting industry; various dilute acids in the sulfuric acid industry; various sewage in the environmental protection industry, etc. This pump is both corrosion-resistant and wear-resistant, and has a wide range of uses.

This pump has been used for a long time in acidic slurry and dilute acid positions in more than 30 large non-ferrous smelting and sulfuric acid enterprises such as Jiangxi Guixi Smelter, Gansu Baiyin Company, and Liaoning Huludao Zinc Plant. Its corrosion resistance, wear resistance, sealing reliability, and service life have all been highly evaluated.

(I) Brief description of main technical performance

1. Model: UHB-ZK series

2. Features: corrosion-resistant and wear-resistant, one pump for multiple uses, suitable for both acid and alkali clear liquid slurry.

3. Structure: (1) The pump body is steel-lined ultra-high molecular polyethylene, with a lining thickness of 8-20mm.

(2) There are two types of impellers: separate type and closed type, which can be selected according to the medium conditions.

(3) Seal: K-type dynamic seal.

4. Applicable media: sulfuric acid with a concentration of less than 80%, nitric acid with a concentration of less than 50%, hydrochloric acid of various concentrations, and liquid alkali. It is suitable for both clear liquid and slurry.

5. Key technical parameters: operating temperature -20℃~80℃ (for special requirements, modified materials can be used to increase to 105℃),inlet φ32mm~φ250mm, flow rate 5~600m³/h, head within 50m.

(II) Extremely wide range of applications

1. Sulfuric acid and phosphate fertilizer industry: conveying of dilute acid, mother liquor, sewage, seawater, fluosilicic acid containing silica gel, phosphoric acid slurry and other media.

2. Nonferrous metal smelting industry: particularly suitable for conveying various acid liquids, corrosive ore slurries, slurry (for filter press), electrolyte, sewage and other media for wet smelting of lead, zinc, gold, silver, copper, manganese, cobalt, rare earth, etc.

3. Chemical and other enterprises: various clear liquid or slurry stations of sulfuric acid, hydrochloric acid, alkaline, and oil.

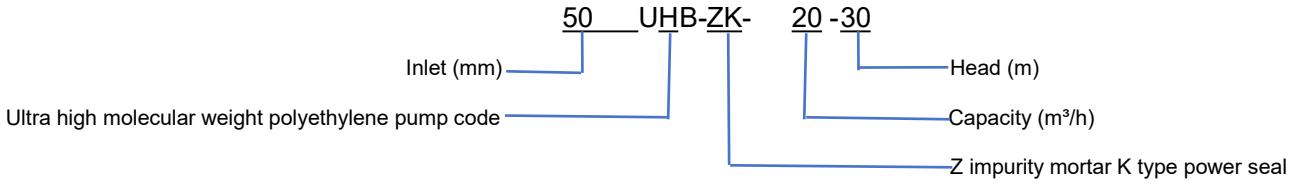
4. Chlor-alkali industry: hydrochloric acid, liquid alkali, electrolyte, etc.

5. Water treatment industry: pure water, high-purity water, sewage (leather sewage, electroplating sewage, electronic sewage, papermaking sewage, textile sewage, food sewage, domestic sewage, pharmaceutical sewage, etc.).

6. Iron and steel enterprises: sulfuric acid and hydrochloric acid stations of pickling system, sewage with impurities.

7. Matching wet desulfurization dust collector: can be used in alkaline, acidic and corrosive positions at the same time.

Model Definition



Pump performance parameters

S/N	Model	Capacity (m3/h))	Head (m)	Speed (r/min)	Power(KW)		Inlet X Outlet (mm)	Weight (kg)
					Shaft Power (Kw)	Motor Power (Kw)		
1	32U11B-ZK-3-13	3	13	2900	0.3	0.75	32×25	80
2	32UHB-ZK-5-12	5	12	2900	0.42	0.75		
3	32UHB-ZK-7-10	7	10	2900	0.5	0.75		
4	32UHB-ZK-3-8	3	18	2900	0.4	1.1		
5	32UHB-ZK-5-15	5	15	2900	0.55	1.1		
6	32UHB-ZK-8-12	8	12	2900	0.7	1.1		
7	32UHB-ZK-5-20	5	20	2900	0.72	1.1		
8	32UHB-ZK-8-18	8	I8	2900	1.2	1.5		
9	32UHB-ZK-12-15	12	15	2900	1.3	2.2		
10	32UHB-ZK-5-25	5	25	2900	1.1	2.2		
11	32UHB-ZK-10-20	10	20	2900	1.6	2.2		
12	32UHB-ZK-5-5	5	5	1450	0.25	0.75		
13	32UHB-ZK-15-15	15	15	2900	1.7	2.2		
14	40UHB-ZK-10-30	10	30	2900	2.2	3	40×32	130
15	40UHB-ZK-15-25	15	25	2900	2.7	3		
16	40UHB-ZK-7.5-6	7.5	6	1450	0.4	0.75		
17	40UHB-ZK-18-20	18	20	2900	2.6	3		
18	40UHB-ZK-10-18	10	18	2900	1.3	2.2		
19	40UHB-ZK-15-15	15	15	2900	1.7	2.2		
20	50UHB-ZK-15-32	15	32	2900	3.5	5.5	50×40	170
21	50UHB-ZK-20-30	20	30	2900	4.3	5.5		
22	50UHB-ZK-10-7.5	10	7.5	1450	0.6	1.1		
23	50UHB-ZK-25-28	25	28	2900	5.0	5.5		
24	50UHB-ZK-10-35	10	35	2900	3.2	4		
25	50UHB-ZK-12-40	12	40	2900	3.8	5.5		
26	50UHB-ZK-15-43	15	43	2900	5.6	7.5		
27	50UHB-ZK-20-20	20	20	2900	3.0	4		
28	50UHB-ZK-25-18	25	18	2900	3.2	4		
29	50UHB-Z K-30-15	30	15	2900	3.1	4		
30	65UHB-ZK-30-25	30	25	2900	5.3	5.5	65×50	220
31	65UHB-ZK-35-20	35	20	2900	5.1	5.5		
32	65UHB-ZK-40-15	40	15	2900	4.5	5.5		
33	65UHB-ZK-30-32	30	32	2900	6.5	7.5		
34	65UHB-ZK-15-8	15	8	1450	0.9	1.1		
35	65 UHB-ZK-35-25	35	25	2900	6.2	7.5		
36	65UHB-ZK-40-20	40	20	2900	5.9	7.5		
37	65UHB-ZK-10-45	10	45	2900	4.8	7.5		
38	65UHB-ZK-5-11	5	11	1450	0.6	1.1		
39	65UHB-ZK-10-40	10	40	2900	4.2	5.5		
40	65UHB-ZK-20-50	20	50	2900	8.7	11		
41	65UHB-ZK-10-12.	10	12.5	1450	1.2	2.2		
42	65UHB-ZK-30-50	30	50	2900	12	15		
43	65UHB-ZK-15-12.	15	12.5	1450	1.6	2.2		
44	65UHB-ZK-30-40	30	40	2900	9.6	11		
45	65UHB-ZK-30-20	30	20	1450	4.8	5.5	65×50	250
46	65UHB-ZK-35-15	35	15	1450	5.1	5.5		

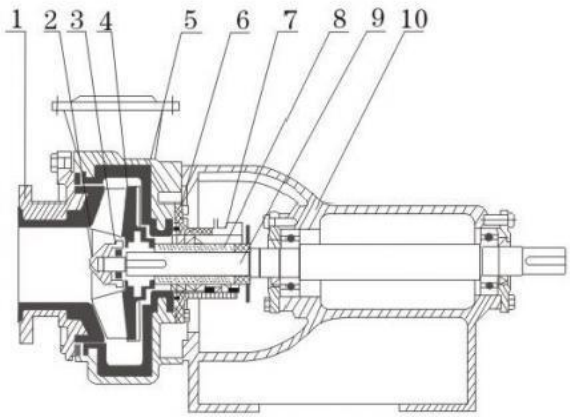
S/N	Model	Capacity (m3/h))	Head (m)	Speed (r/min)	Power(KW)		Inlet X Outlet (mm)	Weight (kg)
					Shaft Power (Kw)	Motor Power (Kw)		
47	80UHB-ZK-40-20	40	20	2900	5.8	7.5	80×65	270
48	80UHB-ZK-45-18	45	18	2900	6.1	7.5		
49	80UHB-ZK-50-15	50	15	2900	5.6	7.5		
50	80UHB-ZK-35-45	35	45	2900	10.8	11		
51	80UHB-ZK-17.5-11	17.5	11	1450	1.5	2.2		
52	80UHB-ZK-40-35	40	35	2900	10.2	11		
53	80UHB-ZK-45-32	45	32	2900	10.1	11		
54	80UHB-ZK-50-30	50	30	2900	10.2	11		
55	80UHB-ZK-60-30	60	30	2900	12.6	15		
56	80UHB-ZK-45-50	45	50	2900	14.8	15		
57	80UHB-ZK-22.5-12.5	22.5	12.5	1450	2.3	3		
58	80UHB-ZK-55-40	55	40	2900	14.8	18.5		
59	80UHB-ZK-30-60	30	60	1450	14.6	18.5	80×65	750
60	80UHB-ZK-40-40	40	40	1450	10.6	11		
61	80UHB-ZK-30-50	30	50	1450	9.98	11		
62	80UHB-ZK-40-50	40	50	1450	13.6	15		
63	80UHB-ZK-50-56	50	56	1450	18.6	22		
64	80UHB-ZK-40-60	40	60	1450	18.1	22		
65	80UHB-ZK-60-55	60	55	1450	21.9	30		
66	100UHB-ZK-50-58	50	58	2900	21	22	100×80	370
67	100UHB-ZK-50-50	50	50	2900	17.5	18.5		
68	100UHB-ZK-60-50	60	50	2900	21.5	22		
69	100UHB-ZK-60-40	60	40	2900	16.8	18.5		
70	100UHB-ZK-60-30	60	30	2900	13.8	15		
71	100UHB-ZK-70-45	70	45	2900	23.5	30		
72	100UHB-ZK-80-35	80	35	2900	17.8	18.5		
73	100UHB-ZK-100-27	100	27	2900	18.4	22		
74	100UHB-ZK-80-15	80	15	2900	10.2	11		
75	100UHB-ZK-100-20	100	20	2900	15	15		
76	100UHB-ZK-80-50	80	50	2900	27	30		
77	100UHB-ZK-100-45	100	45	2900	28	30		
78	100UHB-ZK-50-11	50	11	1450	4.2	5.5		
79	100UHB-ZK-120-40	120	40	2900	28.5	30		
80	100UHB-ZK-145-28	145	28	2900	29.5	30		
81	100UHB-ZK-80-30	80	30	2900	17.5	18.5		
82	100UHB-ZK-100-25	100	25	2900	17.9	18.5		
83	100UHB-ZK-120-20	120	20	2900	17.2	18.5		
84	100UHB-ZK-140-15	140	15	2900	16.8	18.5		
85	100UHB-ZK-100-20	100	20	2900	14.9	18.5		
86	100UHB-ZK-120-15	120	15	2900	14.2	18.5		
87	100UHB-ZK-140-10	140	10	2900	14.5	18.5		
88	100UHB-ZK-80-35	80	35	1450	17.8	18.5	100×80	950
89	100UHB-ZK-80-40	80	40	1450	19.6	30		
90	100UHB-ZK-60-70	60	70	1450	35.9	37		
91	100UHB-ZK-60-65	60	65	1450	33.6	37		
92	100UHB-ZK-50-70	50	70	1450	24.4	37		
93	100UHB-ZK-80-60	80	60	1450	35.9	37		
94	100UHB-ZK-80-50	80	50	1450	26.6	37		
95	100UHB-ZK-100-57	100	57	1450	37.9	45		
96	100UHB-ZK-80-65	80	65	1450	40.3	45		

S/N	Model	Capacity (m3/h))	Head (m)	Speed (r/min)	Power(KW)		Inlet X Outlet (mm)	Weight (kg)
					Shaft Power (Kw)	Motor Power (Kw)		
97	100UHB-ZK-120-50	120	50	1450	39.9	45	125×100	480
98	100UHB-ZK-100-65	100	65	1450	48.9	55		
99	100UHB-ZK-120-60	120	60	1450	51.5	55		
100	125UHB-ZK-100-40	100	40	2900	28.8	30		
101	125UHB-ZK-120-35	120	35	2900	29.4	30		
102	125UHB-ZK-140-25	140	25	2900	25	30		
103	125UHB-ZK-120-32	120	32	2900	26.8	30		
104	125UHB-ZK-140-28	140	28	2900	27.6	30		
105	125UHB-ZK-160-24	160	24	2900	28.1	30		
106	125UHB-ZK-120-20	120	20	2900	17.2	18.5		
107	125UHB-ZK-140-18	140	18	2900	21	22		
108	125UHB-ZK-150-15	150	15	2900	21.5	22		
109	125UHB-ZK-80-15	80	15	1450	10.2	11		
110	150UHB-ZK-120-25	120	25	1450	24.5	30	150×125	1000
111	150UHB-ZK-80-11	80	11	980	8.9	11		
112	150UHB-ZK-150-20	150	20	1450	24.5	30		
113	150UHB-ZK-180-30	180	30	1450	35.5	37		
114	150UHB-ZK-210-26	210	26	1450	36.4	37		
115	150UHB-ZK-148-11	148	11	980	15	15		
116	150UHB-ZK-240-24	240	24	1450	35.2	37		
117	150UHB-ZK-270-20	270	20	1450	36	37		
118	150UHB-ZK-190-18	190	18	1450	19.8	22		
119	150UHB-ZK-135-8	135	8	980	10.5	11		
120	150UHB-ZK-260-16	260	16	1450	28	30		
121	150UHB-ZK-280-14	280	14	1450	28.2	30		
122	150UHB-ZK-120-40	120	40	1450	33.6	37		
123	150UHB-ZK-150-40	150	40	1450	42	45		
124	150UHB-ZK-101-18	101	18	980	12.8	15		
125	150UHB-ZK-200-32	200	32	1450	43.4	45		
126	150UHB-ZK-250-30	250	30	1450	41.5	45		
127	150UHB-ZK-300-25	300	25	1450	42.3	45		
128	200UHB-ZK-320-32	320	32	1450	51.8	55	200×150	1200
129	200UHB-ZK-210-14	210	14	980	18.4	18.5		
130	200UHB-ZK-350-28	350	28	1450	55	55		
131	200UHB-ZK-400-25	400	25	1450	70	75		
132	200UHB-ZK-250-45	250	45	1450	74	75		
133	200UHB-ZK-168-20	168	20	980	27	30		
134	200UHB-ZK-300-38	300	38	1450	69.5	75		
135	200UHB-ZK-350-34	350	34	1450	67.3	75		
136	200UHB-ZK-320-24	320	24	1450	42	45		
137	200UHB-ZK-215-10	215	10	980	15.6	18.5		
138	200UHB-ZK-350-20	350	20	1450	43	45		
139	200UHB-ZK-400-18	400	18	1450	44	45		
140	200UHB-ZK-500-12	500	12	1450	45	45		
141	250UHB-ZK-400-45	400	45	1450	112	132	250×200	2200
142	250UHB-ZK-270-20	270	20	980	35	37		
143	250UHB-ZK-500-37	500	37	1450	118	132		
144	250UHB-ZK-600-30	600	30	1450	120	132		
145	250UHB-ZK-400-32	400	32	1450	85	90		
146	250UHB-ZK-270-14	270	14	980	25	30		
147	250UHB-ZK-500-26	500	26	1450	79	90		
148	250UHB-ZK-600-20	600	20	1450	84	90		

S/N	Model	Capacity (m3/h))	Head (m)	Speed (r/min)	Power(KW)		Inlet X Outlet (mm)	Weight (kg)
					Shaft Power (Kw)	Motor Power (Kw)		
149	300UEE-ZK-860-33	860	33	1450	135	160	300×250	3400
150	300LHB-ZK-1000-32	1000	28	980	137.5	160		
151	300UEE-ZK-1180-31	1180	31	1450	155	160		
152	300UHB-ZK-900-21	900	21	980	97.8	110		
153	300THB-7K-850-51	850	51	1450	220	250		
154	300UHE-ZK-1000-50	1000	50	1450	226	250		
155	300THE-ZK-1100-48.8	1100	48.8	1450	242	250		
156	300UTHE-ZK-675-22.8	675	22.8	980	69.8	75		
157	300ITEB-ZK-1270-66	1270	66	1450	414	500	300×250	3950
158	300UEE-ZK-1420-60	1420	60	1450	430	500		
159	300TEB-ZK-960-27.4	960	27.4	980	115	132		
160	350TTHB-ZK-1600-25	1600	25	980	149	160	350×300	4250
161	350TTHR-ZK-2000-20	2000	20	980	151	160		
162	350UEB-ZK-2600-16	2600	16	980	153	160		
163	350THB-ZK-1470-11	1470	11	720	78	90		

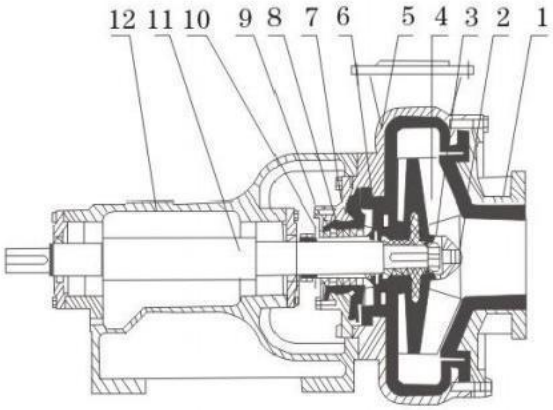
Key Structure of UHB-ZK Mortar Pumps

When the pump inlet diameter ≤125mm (excluding the Expeller)



1	Pump Cover	6	Seal Box
2	Impeller Nut	7	Seal Gasket
3	Lock Nut	8	Shaft Sleeve
4	Impeller	9	Shaft
5	Volute Casing	10	Bearing Gland

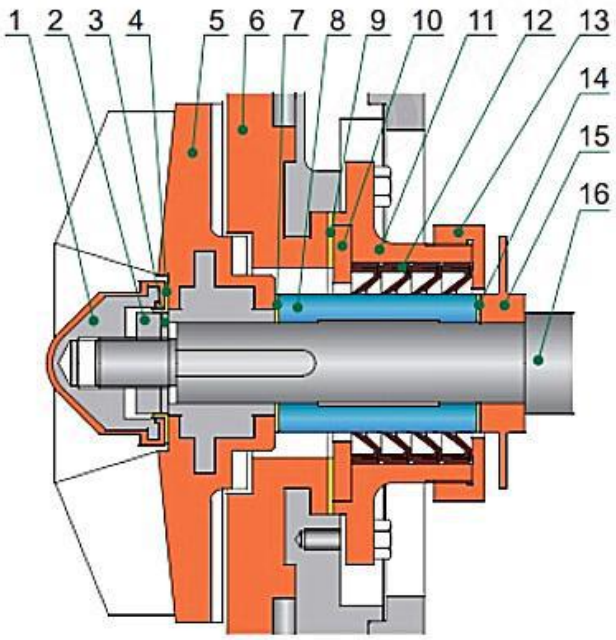
When the pump inlet diameter >125mm (including the Expeller)



1	Pump Cover	7	Seal Box
2	Impeller Nut	8	Seal Gasket
3	Lock Nut	9	Water retaining ring
4	Impeller	10	Shaft Sleeve
5	Volute Casing	11	Shaft
6	Expeller	12	Bearing Gland

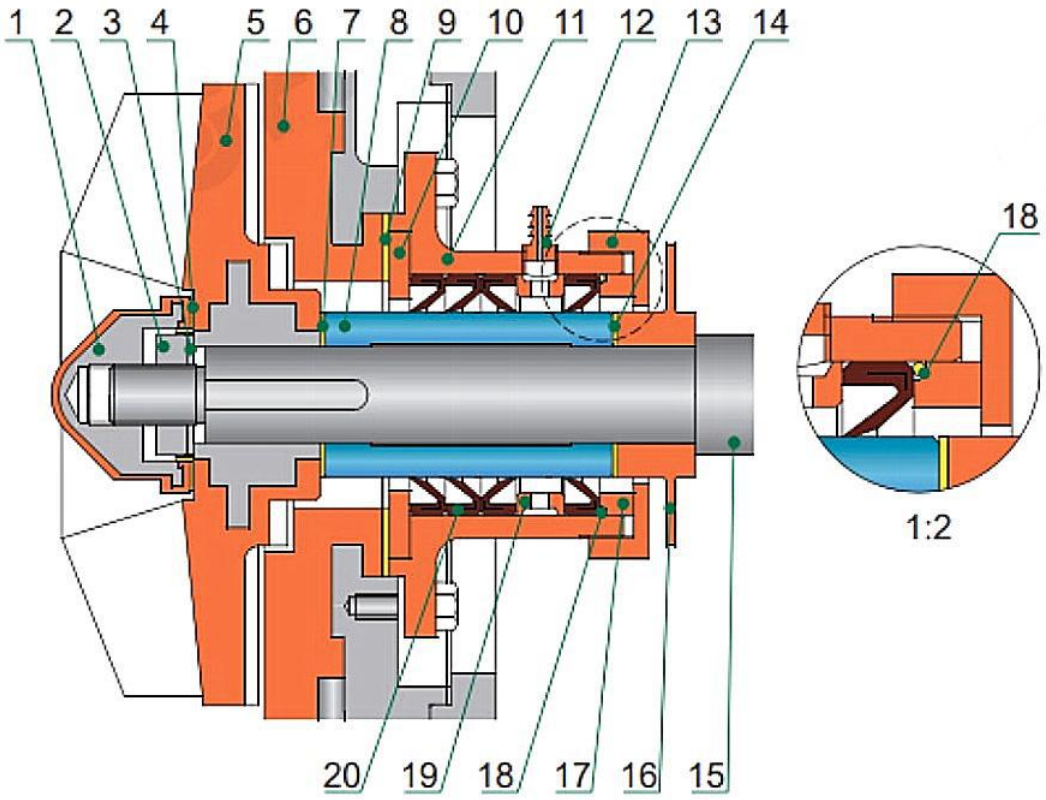
Key Structure of Seal

Type K Power Seal Without Cooling Water



S/N	Part Name
1	Impeller Nut
2	Lock Nut
3	Wasi
4	Lock Nut L Pad
5	Impeller
6	Pump Casing
7	Impeller Pad
8	Bushing
9	Seal Box Gasket
10	Seal Box Gasket
11	Seal Box
12	K-shaped Seal
13	Seal the lid of the Box
14	Bushing Pad
15	Acid Blocking Table
16	Spindle

Type K Power Seal With Cooling Water



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1	Impeller Nut
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7	Impeller Pad
8	Bushing
9	Seal Box Gasket
10	Seal Box Gasket
11	Seal Box
12	Cooling Water Nozzel
13	Seal the lid of the Box
14	Bushing Pad
15	Spindle
16	Acid Blocking Table
17	Top Ring
18	O-ring Seal
19	Water Seal Ring
20	K-shaped Seal

Instructions for start-up, operation, maintenance and disassembly procedures

Start-up and maintenance

Inspection before operation:
Before the trial operation, you should first turn the coupling or shaft by hand to check whether the direction is correct and whether the operation is flexible. If it does not move or there is an abnormal sound, you should check it in time. When checking, first check whether the coupling is horizontal from the outside by hand, and check whether the position of the lubricating oil is near the center line of the oil mirror from the oil mirror hole on the bearing seat (too much should be drained, too little should be added), and turn it while checking. If the problem still exists, you should dismantle the pump for inspection (please refer to the structural diagram and disassembly and assembly procedures in this manual when dismantling the pump) to clean up foreign matter, and contact our factory to negotiate a solution.

Start-up steps:
- Fill the pump with liquid
- Open the inlet valve in time (if the inlet valve is a one-way check valve, no manual operation is required)
- Turn on the power
- Open the outlet valve

Operation:
- If there is abnormal sound during operation, or abnormal conditions such as motor heating, the machine should be stopped for inspection. The inspection method and steps are the same as 1

Stopping steps:
- Close the outlet valve first
- Cut off the power supply and close the inlet valve in time; (if the inlet valve is a one-way check valve, no manual operation is required).

Maintenance
- The lubricating oil in the bearing seat should be replaced regularly, and normally it should be replaced every six months.
- In cold seasons, if there is freezing after stopping the pump, you should first connect the cooling water at the seal. If necessary, you can add hot water to thaw it. Then turn the coupling by hand until it runs smoothly, and then start the pump according to the starting steps.
- For pumps with cooling water devices, you should connect the cooling water before starting. When the pump is running normally, you can continue to connect it. If conditions do not allow, you can also stop it. There is no requirement for the flow and pressure of the cooling water. Tap water is sufficient.
- The operation of the pump when the outlet valve is closed is called the closed pressure operation state. The closed pressure operation time of the all-plastic pump or the plastic-lined pump should be shortened as much as possible. The normal temperature medium is limited to no more than 5 minutes, and the high temperature medium is preferably not more than 2 minutes.
- For pumps with center-split pump shells, such as pumps with an inlet of more than 150mm, the sealing plastic at the center split surface has some changes in size due to thermal expansion and contraction. When installing, the connecting bolts at the center split should be tightened first, and then the inlet pipeline should be connected to prevent leakage from the center split surface. This is especially important for users in the north.
- The pump cannot bear the weight of the inlet and outlet pipes. The shorter the inlet pipe is, the better. The vertical height from the pump outlet to the valve should be as short as possible.
- Keep the motor free of water marks to prevent the motor from getting wet.

Disassembly and assembly procedures

Pump without expeller (inlet diameter ≤125mm) Disassembly and assembly sequence (refer to the structural diagram in this manual):

- Loosen the bolts connecting the pump body 5 and the pump cover 1, and remove the pump cover;
- Loosen the impeller cap 2 (left-handed thread) and the anti-rotation nut 3 (left-handed thread), and remove the impeller 4;
- Loosen the connecting bolts between the pump body 5 and the bearing seat 10, and remove the pump body 5;
- Loosen the connecting bolts between the sealing box 6 and the pump body 5, and remove the sealing box 6;
- Unscrew the rear gland on the sealing box and take out the oil seal.

The installation sequence is opposite to the disassembly sequence. It should be noted that:

- After tightening the impeller cap, check the gap between the impeller and the pump body. The gap is required to be about 2mm;
- After installing the pump cover, check the gap between the pump cover and the impeller (looking inward from the outlet). The gap should be guaranteed to be about 2mm. For pumps for high-temperature media, the gap is required to be about 2.5mm;
- If the gap between the impeller and the pump body does not meet the requirements, it can be adjusted by adding or reducing the gaskets between the impeller and the shaft sleeve;
- If the gap between the pump cover and the impeller does not meet the requirements, it can be adjusted by adding or reducing the gaskets between the pump body and the pump cover.

Pump with auxiliary impeller (inlet diameter>125mm) Disassembly and assembly sequence (refer to the structural diagram in the manual):

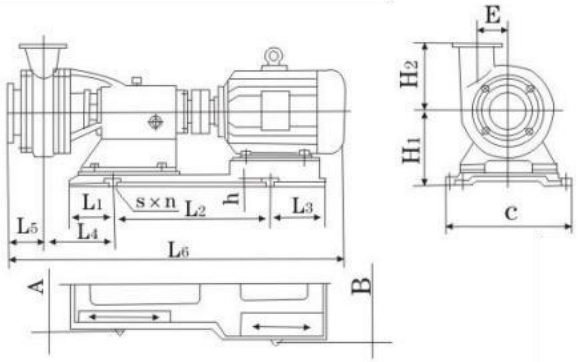
- Loosen the bolts connecting the pump body 5 and the pump cover 1, and remove the pump cover 1.
- Loosen the impeller cap 2 (left-handed thread) and the anti-rotation nut 3 (left-handed thread), and remove the impeller 4;
- Loosen the bolts connecting the pump body 5 and the bearing seat 12, and the bolts connecting the sealing box 7 and the pump body, and remove the pump body 5;
- Remove the auxiliary impeller, sealing box, oil seal, and shaft sleeve in turn.

The installation sequence is the opposite of the removal sequence. Please note that:

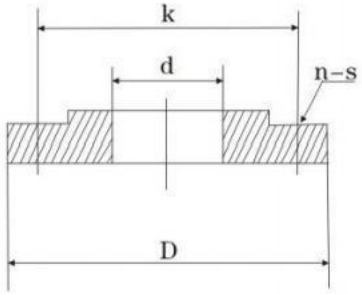
- After tightening the impeller cap and the nut behind the water retaining ring, check the gap between the impeller and the pump body. The gap is required to be about 2.5mm;
- After installing the pump cover, check the gap between the pump cover and the impeller (looking inward from the outlet). The gap should be guaranteed to be about 2mm. For pumps used for high-temperature media, the gap is required to be about 2.5mm;
- If the gap between the impeller and the pump body does not meet the requirements, it can be adjusted by adding or reducing the gaskets between the impeller and the shaft sleeve;
- If the gap between the pump cover and the impeller does not meet the requirements, it can be adjusted by adding or reducing the gaskets between the pump body and the pump cover.

Outline and installation dimensions

A. Installation Dimensions



B. Diagram of pump inlet & outlet flanges



Installation Dimensions

S/N	Model	Motor Power	A	B	C	E	H1	H2	Li	L2	L3	L4	L5	L6	h	sxn
1	32UHB-ZK	0.75KW-2	230	230	270	60	162	120	90	380	85	90	215	900	20	18x4
2	32UHB-ZK	0.75-2.2KW-2	260	260	315	78	170	150	100	335	100	210	115	780	25	18x4
3	32UHB-ZK	3KW-2	260	260	315	78	170	150	120	335	120	225	115	825	25	20x4
4	40UHB-ZK	0.75-2.2KW-2	260	260	315	86	170	165	100	335	100	230	120	845	25	18x4
5	40UHB-ZK	3KW-2	260	260	315	86	170	165	120	335	120	245	120	900	25	18x4
6	40UHB-ZK	4KW-2	260	320	380	86	170	165	130	345	130	255	120	925	25	18x4
7	50UHB-ZK	3KW-2	320	320	380	95	210	180	160	400	160	270	125	1010	25	20x4
8	50UHB-ZK	4KW-2	320	320	380	95	210	180	160	400	160	270	125	1020	25	20x4
9	50UHB-ZK	5.5-7.5KW-2	320	320	380	95	210	180	160	400	160	270	125	1060	25	20x4
10	50UHB-ZK	11KW-2	320	370	435	95	225	180	165	525	165	270	125	1180	35	25x4
11	65UHB-ZK	5.5-7.5KW-2	320	320	380	105	210	190	160	400	160	270	125	1060	25	20x4
12	65UHB-ZK	11-15KW-2	320	370	435	105	225	190	165	525	165	270	125	1200	35	25x4
13	65UHB-ZK(High)	7.5KW-2	320	320	380	123	210	200	160	400	160	280	135	1070	25	20x4
14	65UHB-ZK(High)	11-15KW-2	320	370	435	123	225	200	165	525	165	280	135	1215	35	25x4
15	65UHB-ZK(High)	18.5KW-2	320	370	435	123	225	200	165	570	165	280	135	1260	35	25x4
16	80UHB-ZK	5.5-7.5KW-2	320	320	380	125	210	220	160	400	160	270	140	1060	25	20x4
17	80UHB-ZK	11-15KW-2	320	370	435	125	225	220	165	525	165	270	140	1220	35	25x4
18	80UHB-ZK	18.5KW-2	320	370	435	125	225	220	165	570	165	270	140	1250	35	25x4
19	100UHB-ZK	15-18.5KW-2	410	460	530	130	280	230	190	705	190	305	135	1420	40	25x4
20	100UHB-ZK	22KW-2	410	460	530	130	280	230	190	705	190	305	135	1440	40	25x4
21	100UHB-ZK	30-37KW-2	395	485	555	130	305	230	210	670	210	335	135	1510	40	25x4
22	100UHB-ZK(High)	22KW-4	510	510	580	-240	370	460	250	850	190	360	350	1840	50	30x4
23	100UHB-ZK(High)	30KW-4	510	510	580	-240	370	460	250	850	190	360	350	1900	50	30x4
24	100UHB-ZK(High)	45KW-4	510	610	680	-240	370	460	250	935	250	360	350	2010	50	30x4
25	100UHB-ZK(High)	55KW-4	510	660	750	-240	390	460	245	1000	245	340	350	2080	60	40x4
26	125UHB-ZK	18.5KW-2	410	460	530	-131	280	210	190	705	190	315	170	1465	35	25x4
27	125UHB-ZK	22KW-2	410	460	530	-131	280	210	190	705	190	315	170	1490	35	25x4
28	125UHB-ZK	30-37KW-2	395	485	555	-131	280	210	210	670	210	345	170	1560	35	25x4
29	125UHB-ZK(High)	45KW-4	510	610	680	-240	370	460	250	935	250	360	350	2010	50	30x4
30	125UHB-ZK(High)	55KW-4	510	660	750	-240	390	460	245	1000	245	340	350	2080	50	40x4
31	150UHB-ZK	45KW-4	510	610	680	-223	370	470	250	935	250	345	365	2000	45	30x4
32	150UHB-ZK	37KW-4	420	586	670	-190	350	430	250	840	190	325	350	1850	50	30x4
33	150UHB-ZK	30KW-4	420	536	620	-190	350	430	250	700	300	325	350	1800	50	30x4
34	200UHB-ZK	45KW-4	510	510	680	-235	370	470	250	935	250	360	365	2010	45	30x4
35	200UHB-ZK	55KW-4	510	660	745	-235	390	470	245	1000	245	375	365	2130	60	30x4
36	200UHB-ZK	75KW-4	510	660	745	-235	390	470	245	1000	345	375	365	2180	60	30x4
37	250UHB-ZK	90KW-4	770	770	840	-310	550	510	630	1200	465	450	410	2630	50	30x4
38	250UHB-ZK	110KW-4	770	770	840	-310	550	510	630	1200	465	450	410	2700	50	30x4
39	250UHB-ZK	132KW-4	770	770	840	-310	550	510	630	1200	465	450	410	2765	50	30x4
40	300UHB-ZK	200KW-6	880	880	970	-390	600	570	330	850×2	440	170	430	2880	60	30x4
41	350UHB-ZK	250KW-6	900	900	990	-425	680	635	325	1000×2	325	140	465	3270	60	30x4

Flange connection size table

d	25	32	40	50	65	80	100	125	150	200	250	300	350
D	115	140	150	165	185	200	220	250	285	340	395	445	505
k	85	100	110	125	145	160	180	210	240	295	350	400	460
n-S	4-φ14	4-φ18				8-φ18			8-φ22		12-φ22		16-φ22

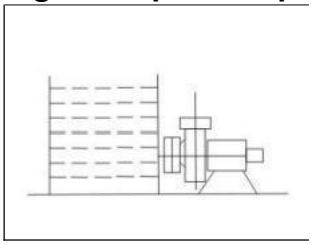
Reference standard: GB9116-88 PN 1.0Mpa

Note:

- For pumps with an inlet of ≥150mm, the pump outlet position is opposite to the figure.
- The nominal pressure of the flanges of the inlet and outlet of all series of pumps in this factory is 1.0Mpa, and the standard code is: flange D-10, GB9116-88, D is the nominal diameter.
- Serial number: refers to the serial number listed in the performance table in the front of this book
- The L dimensions listed in the table are the total length dimensions of the pump when equipped with a two-stage motor. If equipped with a four-stage motor, L will decrease as the motor length decreases.

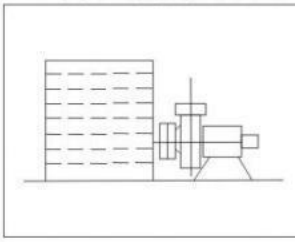
Installation diagram and instructions of UHB-ZK series pumps in several common tank positions

High tank positive pressure state



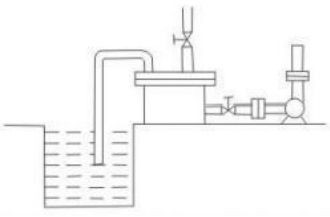
Features: The pump is installed at the bottom of the storage tank. The medium in the storage tank is in a positive pressure state. When the valve at the pump inlet is opened, the liquid in the storage tank can flow into the pump cavity by itself. This is the most ideal installation method for the UHB-ZK anti-corrosion and wear-resistant centrifugal pump.

Negative pressure state of high tank



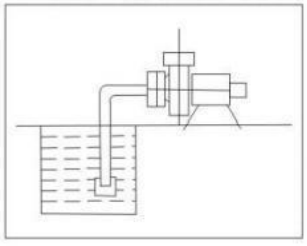
Features: The pump is installed at the bottom of the storage tank. The closed storage tank is in a negative pressure state. When selecting a pump in this state, you must find out the exact data of the negative pressure in the storage tank and then contact our factory before finalizing the model.

The low-level tank is not equipped with a bottom valve and is equipped with a siphon bucket



Features: The pump is installed on the upper part of the storage tank, and a siphon bucket is installed near the inlet of the pump to help start the pump. Before starting the pump for the first time, the siphon bucket needs to be filled with liquid, and it does not need to be filled again. The production of the siphon bucket can select suitable materials and manufacturing processes according to the properties of the medium. The production requirements of the siphon bucket are good sealing, no water leakage or air leakage. The calculation method of the siphon bucket size is as follows: d: inlet pipe diameter L: total length of the inlet pipe, V: siphon bucket volume, according to the calculated volume and the size of the existing materials, the diameter and height of the siphon bucket are determined.

Status of bottom valve installed in low level tank



Features: The pump is installed on the upper part of the storage tank, and a bottom valve needs to be installed at the bottom of the inlet pipe. Before starting the pump each time, the pump cavity must be filled with liquid and it must not be started empty.

Key Parts and Components

Part Name	Material	Remark	Part Name	Material	Remark
Pump Cover	HT200/UHMWPE		Type K Seal Ring	F26B	3 PCS per group
Volute Casing	HT200/UHMWPE		Gasket	F26B	Between Impeller & Impeller Nut
Impeller	1Cr18Ni9/UHMWPE		Gasket	F26B	Between Impeller & Shaft Sleeve
Impeller Nut	A,/UHMWPE		Gasket	F26B	Between Volute Casing & Seal Box
Shaft Sleeve	Si_3N4	or hard graphite	Seal Box	Fiberglass	