



# 1200-1600ZLB(Q)、HLB(Q)

*1200-1600 ZLB(Q),HLB(Q) type vertical semi(full) adjustable axial/mixed flow pump*



- **Advanced technology, perfect hydraulic performance and high efficiency**
- **Wide performance coverage and complete models and configurations**
- **Traditional structure without transmission shaft**
- **Common motors, cheaper and easy maintenance**



ISO9001 2000  
ISO9001 Certified(version 2000)

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## 1, Models explanation

### 1. 1600ZLB-70      1600ZLQ-70N

1600--vertical discharge diameter (mm)

ZLB--vertical partly-adjustable axial flow pump

ZLQ--vertical axial flow pump without transmission shaft (top discharge)

70--1/10 of the pump specific speed ,which means that the pump specific is 700

N--Means new hydraulic models

C--Means that the pump impeller diameter is larger than the standard. A and B means the smaller impeller. (The mixed flow pump is the same.)

### 2. 1600HLB-50      1600HLQ-50N

1600--vertical discharge diameter (mm)

HLB--vertical partly-adjustable mixed flow pump

HLQ--vertical mixed flow pump without transmission shaft (top discharge)

50--1/10 of the pump specific speed ,which means that the pump specific is 500

3. When placing an order ,must make sure the pump blade angles , device installation form, installation height L,L1, the motor power, voltage, speed and so on. Then write remarks.

## 2, Main application

- Industrial and mining drain, municipal engineering, sewage treatment plant
- Iron industry, metallurgy, power plant,shipbuilding, water plant circulation, water supply and so on
- Hydraulic engineering, river harnessing.
- Irrigation, aquaculture, saltworks

## 3, Work conditions

1. Single pump capacity:  $2.5\text{m}^3/\text{s}$ -- $12\text{m}^3/\text{s}$ 。
2. Head: 2m--30m
3. Pump discharge diameter: 1200mm---1600mm

4, Medium: clean water, river water, waste water, rain, sewage and other liquid like water in chemical and physical performance.

5, Motor:

Voltage: 380V,660V,6000V,10000V, 50HZ

Protection class: IP23, IP44

Insulation class: B,F

Work environmental temperature: 55 Turn down the motor power level when the temperature is higher than 40

6, Impeller rotation direction: The impeller rotation direction is clockwise in view from motor to pump.

7, Other notes:

1) Suction form:

The suction trumpet is suitable for cruciform, rectangle, polygon, circle, semicircle inlet pool.

2) Discharge form:

ZLB(Q), HLB(Q) discharge form is 60°elbow discharge with flange joint

## 4, Product feature

◆ This series of pumps performance coverage is wide. The models and specification is complete.

The series of pumps are suitable for various work conditions.

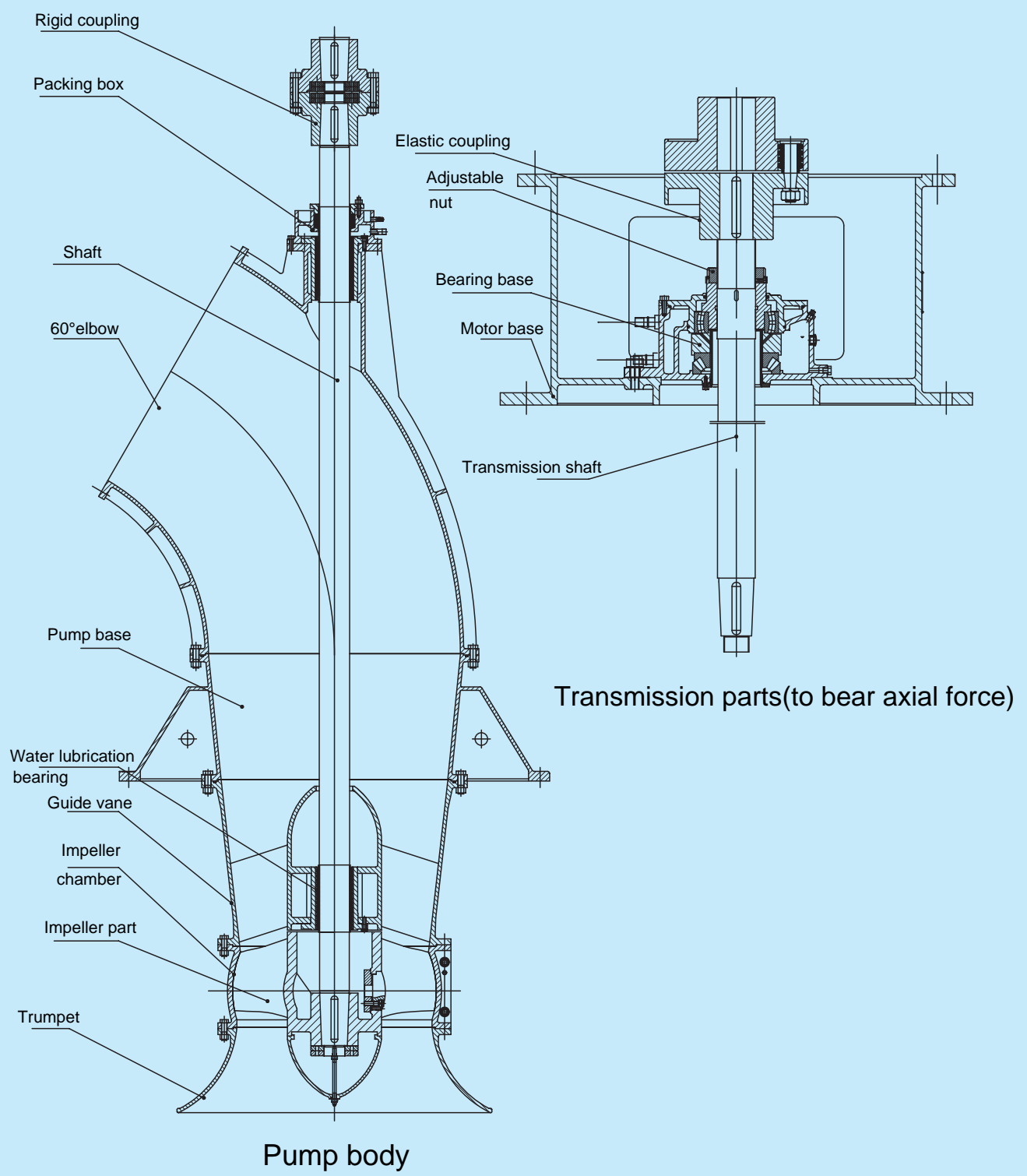
◆ The pump has good hydraulic performance and high efficiency.

◆ The pump is equipped with common motor which is cheaper. And the maintenance is more convenient and safer to prevent water.



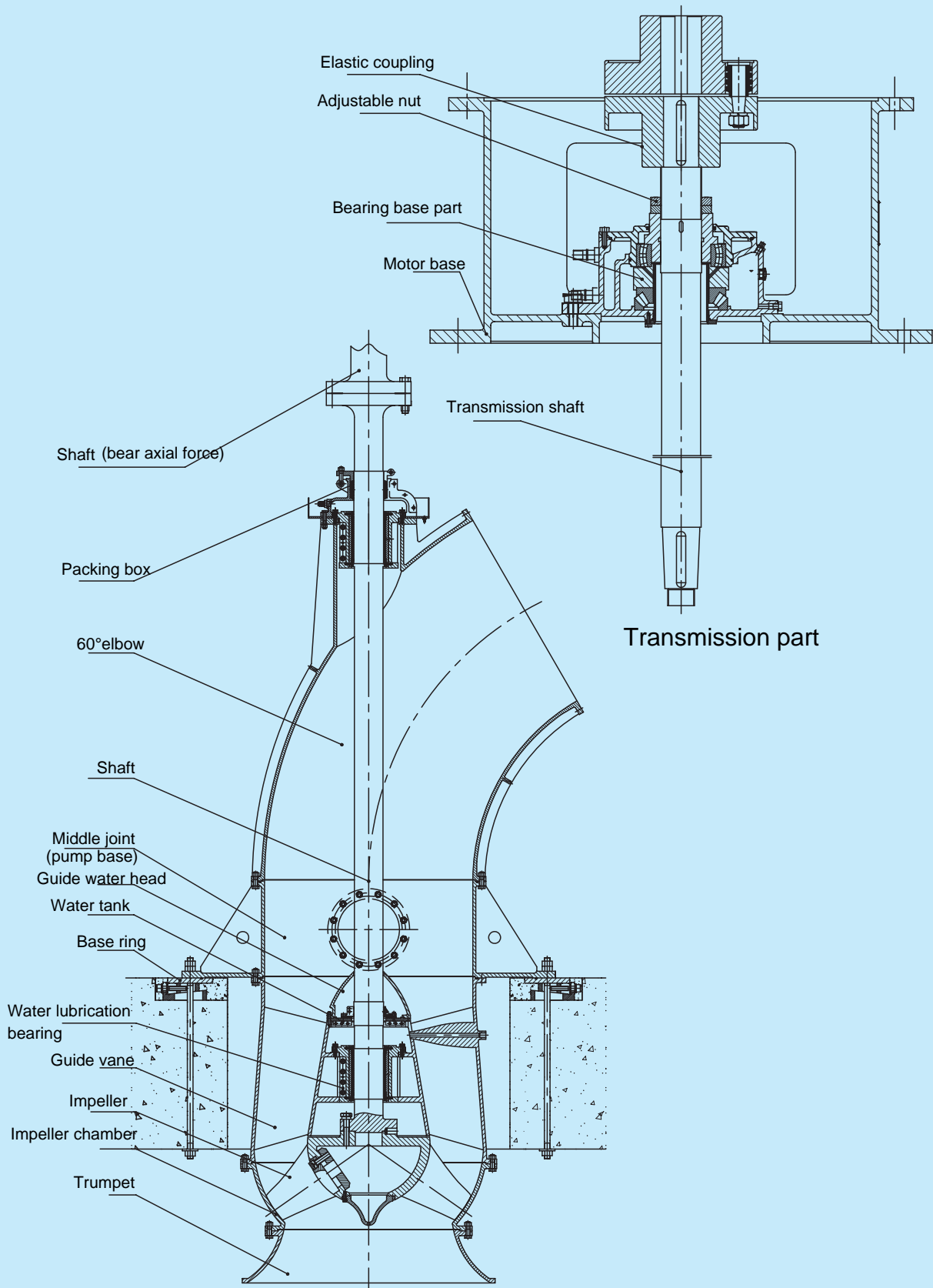
**5, Structure diagram**

Diagram 1



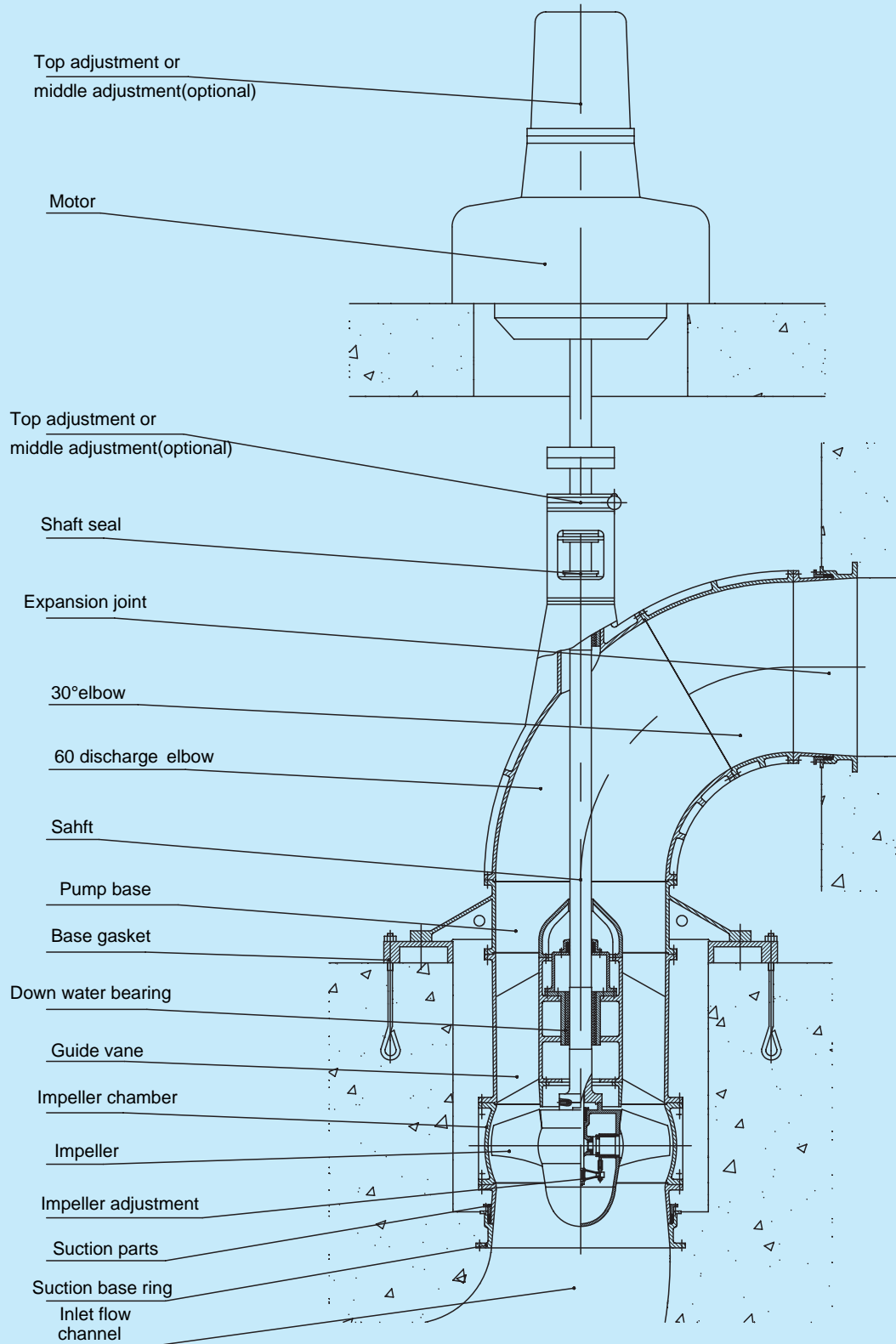
Note: The diagram above is a typical ZLB structure diagram.

Diagram 1



### Structure diagram 2(motor bears axial force)

ZLQ type structure diagram(pump discharge diameter  $\geq 1200\text{mm}$ )  
 If there is no adjustment, it is partadjustable ZLB pump.



Note: It is ZLB(Q) typical structure diagram above.

## 6, Structure introduction

### 1, All-adjustable pump

For all-adjustable pump, pump blades can be adjusted without disassembling any parts: The mechanical adjustment is set between motor and pump or on the motor top. It can adjust the pump blades completely in cooperation with the impeller and pump shaft inner parts. The adjustable blade range:  $-20^{\circ}$ ---- $+4^{\circ}$  Before starting the pump, adjust the blade angles between  $-18^{\circ}$ --- $20^{\circ}$ . The start torque is small and smooth. Can adjust the blade angles to be suitable for the work conditions after start.

a) Top-placement type adjustment: The adjustment is set top of the special motor whose shaft is must hollow. The axial force is born by the motor floor.

b) Middle-placement type adjustment: The adjustment is set between the pump and the motor whose shaft needn't be hollow.

We can also design and manufacture the pump controlled by hydraulic pressure according to customer's requests.

### 2, Other structure introductions

1)In pump station , the pump body is under the pump floor and the motor and transmission parts are set on the motor floor. The motor and the pump are connected by specific transmission shaft.

2)The weight of the motor, transmission parts and pump rotor and the axial force is bore by the motor floor. The pump floor just bears the pump casing weight and the other force when the pump runs.

3)There are two types of pump installation forms, open (wet)type and closed(dry) type. The pump is hung into the hole through the motor hole, which is more convenient for check and maintenance.

4)The transmission shaft can be adjustable according to the different motor floor height. If the transmission shaft is too long, must equip the pump with middle support parts and the pump station must have corresponding support base.

5)There is transmission shaft adjustable nut for transmission parts. And it can adjust the pump impeller position and remove the installation height error.

6) The impeller is adjustable. Can adjust the blades angle after disassemble the impeller parts.

7) The stainless steel sleeve is set between the pump shaft and the water guide bearing which has good anti-rust performance.

8) Shaft seal: It is packing seal. The leakage water is collected and discharged by the drain pipe.

9) Water bearing lubrication: There is a shaft sleeve set outside of the pump shaft to protect the water bearing for the sewage with some particles. And there is a seal closed to the two shaft sleeve ends. The water pressure is 0.2MPa higher than the pump head. And the water enters from the top elbow water lubrication joint pipe and flows into the pump medium after lubricating and chilling the water bearing.

3, Specific bolt seal gasket: When it is closed (dry) type installation, the specific bolts seal gasket is set between the bolt and elbow flange contact surface. The specific bolt seal gasket is to prevent the pool water to leak to the pump floor through the bolt.

4, Base ring and gasket:

When it is trumpet suction type and closed (dry) pump floor installation, the base ring is needed. The base ring and pump floor base are buried in advance according to the requests. The seal gasket is set between the pump and the joint face to prevent the pool water leak into the pump floor. When it is flow channel suction type, the pump is connected with the base gasket and it is actually a dry type device. So must take the leakage problem into account when connecting the base ring with the suction entrance.

5, Others: the straight pipe, 30° elbow, expansion joint parts and others parts behind the pump outlet elbow are optional.

## 7, Main components material

1, Common supply: trumpet, guide vane, elbow, impeller base, motor base: HT200/Q235

Pump shaft, transmission shaft: 45# steel  
blades: ZG270~500  
water guide bearing: HT200+natural rubber  
shaft seal: oil-impregnated graphite packing

2, optional supply: Blades: bronze,SS,QT

Impeller base: bronze,SS, QT  
Pump shaft: 2Cr23, 40Cr  
Water bearing: HT200+polyurethane rubber/Thordon

If the customer needs other material, it can be discussed.

## 8, Scope of supply

- 1, Main pump, transmission parts, motor(optional), specific tools
- 2, Make sure the closed installation : base ring
- 3, Make sure other customer supply requests

## 9, Order notes

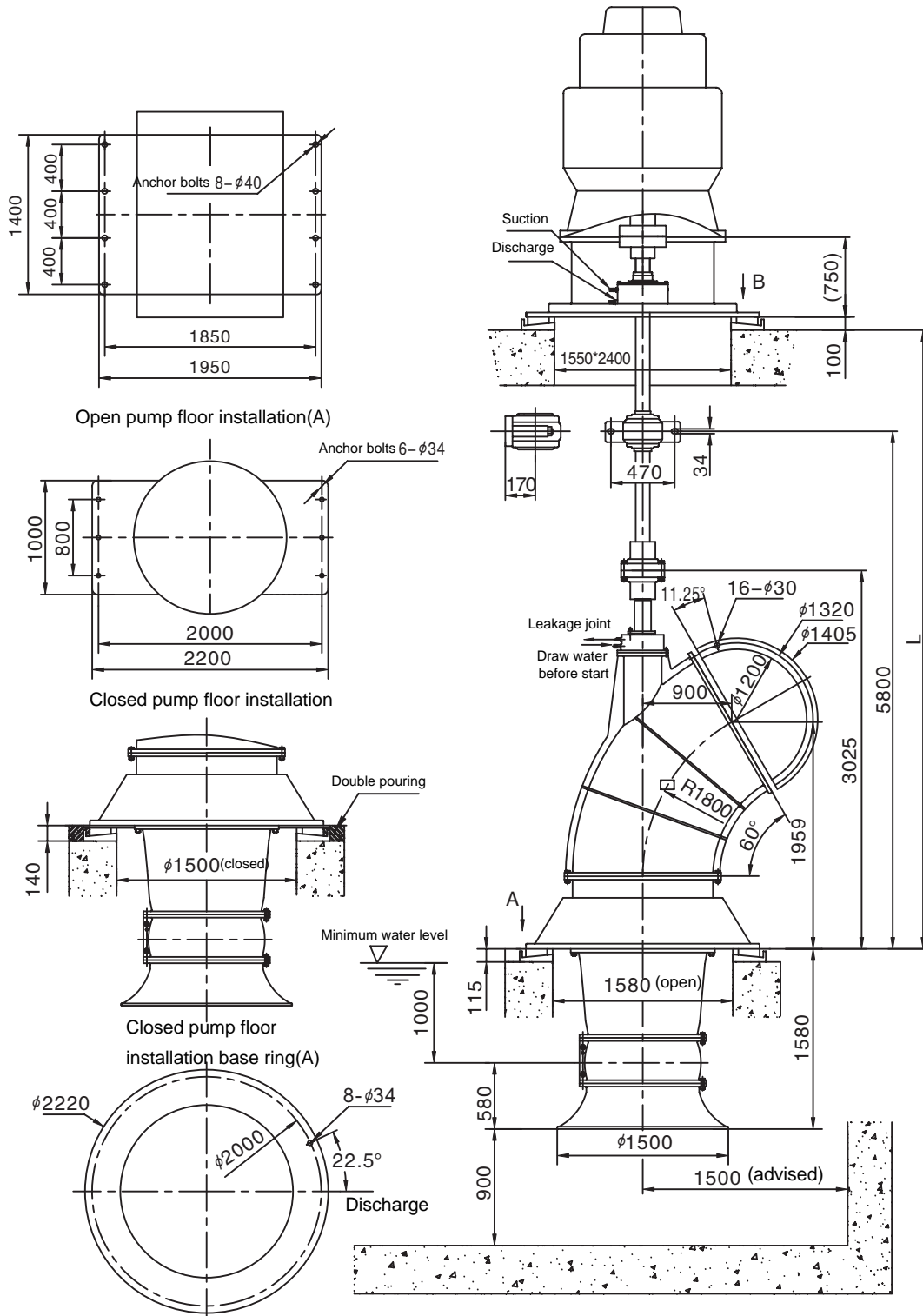
- 1, It should be explicit: product models and names, performance(Q, H or blade angle, speed, NPSHr), motor, pump installation form, motor floor installation form, L(L1) length, medium.
- 2, Discussed attached components: anchor bolts, clap door, 30° elbow, straight pipe, diffuser, expansion joint, joint bolt and other request except from common supply material request.

## 10, Performance curve, outside installation diagram is behind

- 1, As different types of motor power levels are inconsistent in the actual matching motor power, due to motor series reasons, may cause a slight difference with the motor performance parameters of the motor matching table, and performance parameters of the table matching motor power is in accordance with The highest lift point configuration, if the actual maximum lift is lower, supporting power can be adjusted as appropriate
- 2, In the outside drawing ,more than 450 KW large motor motor base installation dimensions may be adjusted and some motors need to be designed again. So the outside installation diagram and dimensions are not supplied in this book. Contact with tech sector for the scheme.
- 3, ZLQ, HLQ performance curve is similar with the ZLB, HLB performance curve with the same configuration. (Note: performance curve and outside installation diagram are shown behind)
- 4, Select the suitable motor power according to the maximum head and running angles.

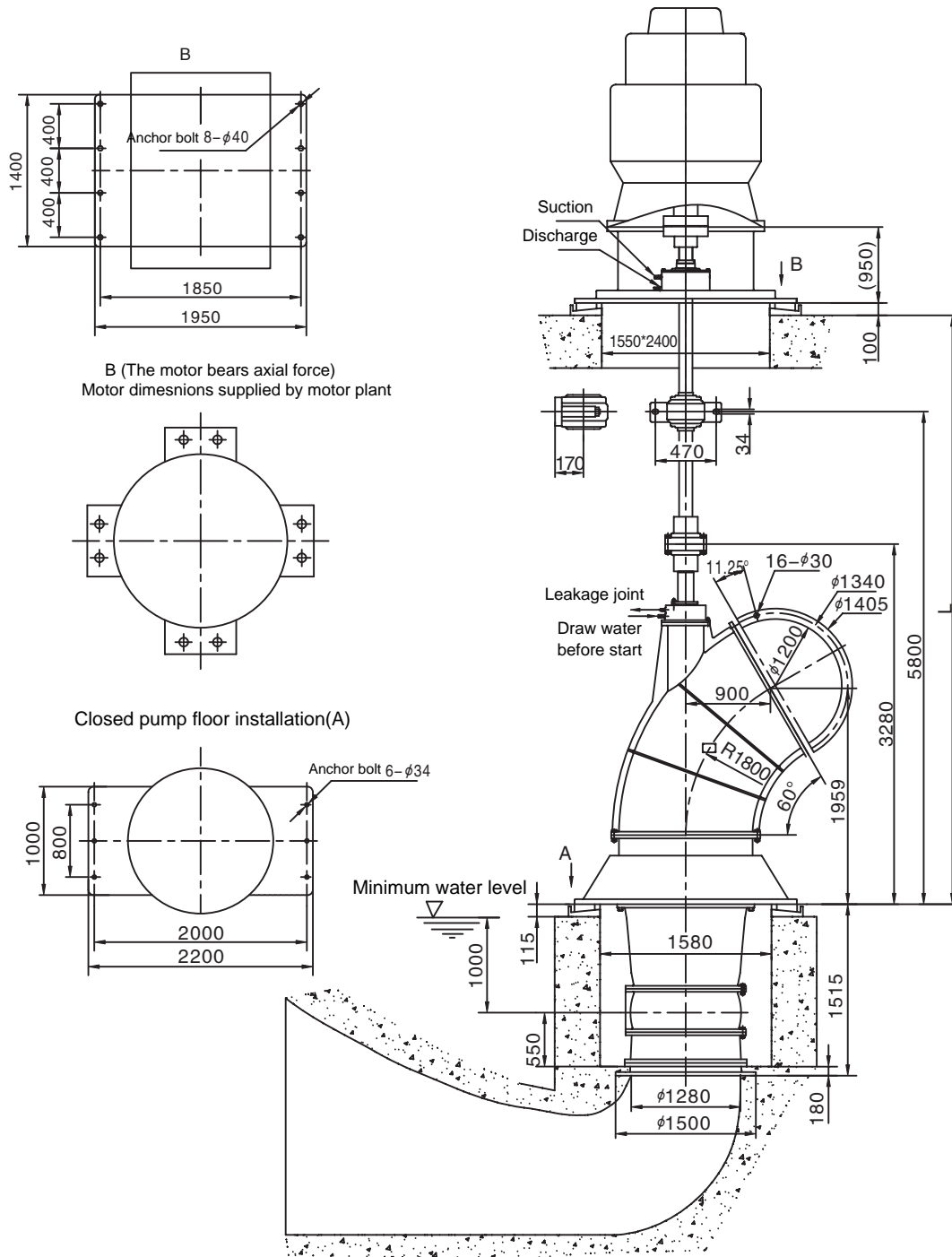
### 1200ZLB(Q) outside installation diagram.

Model	Pump weight	Rotation part	Transmission part	Maximum axial force	Introduction
1200ZLB(Q)-50	5200	1150	3000	11400	1, L is generally 4000~9000 and middle bearing is needed if L is longer than 6000. 2, Motor floor load = motor weight+ rotation part weight+ transmission part weight+ maximum axial force 3, There are two types of pump. One has transmission parts and another has no.
1200ZLB(Q)-60	5200	1150	3000	10000	
1200ZLB(Q)-70	5200	1150	3000	8750	
1200ZLB(Q)-70N	5200	1150	3000	8500	
1200ZLB(Q)-85	5200	1150	3000	7900	
1200ZLB(Q)-100	5200	1150	3000	6700	
1200ZLB(Q)-125	5200	1150	3000	5800	



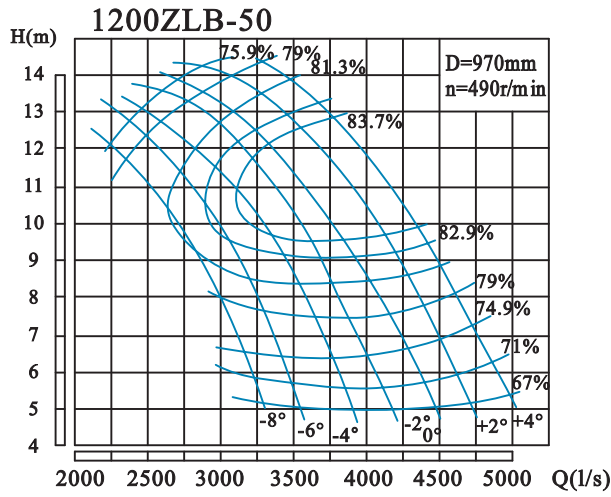
## 1200ZLB(Q) outside installation diagram 2

Model	Pump weight	Rotation part	Transmission part	Maximum axial force	Introduction
1200ZLB(Q)-50	5200	1150	3000	11400	1, L is generally 4000~9000 and middle bearing is needed if L is longer than 6000. 2, Motor floor load = motor weight+ rotation part weight+ transmission part weight+ maximum axial force 3, There are two types of pump. One has transmission parts and another has no.
1200ZLB(Q)-60	5200	1150	3000	10000	
1200ZLB(Q)-70	5200	1150	3000	8750	
1200ZLB(Q)-70N	5200	1150	3000	8500	
1200ZLB(Q)-85	5200	1150	3000	7900	
1200ZLB(Q)-100	5200	1150	3000	6700	
1200ZLB(Q)-125	5200	1150	3000	5800	



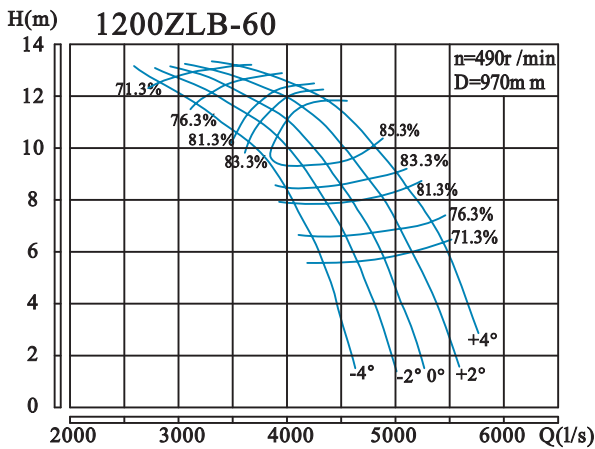


## 1200 ZLB performance curve/ data sheet



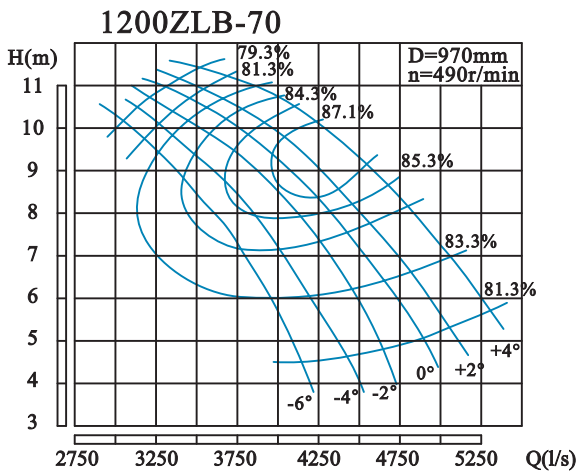
### 1200ZLB-50 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	12573	3492	5.57	490	268.7	400	71.0	970
	10610	2947	10.18		353.5			
	8400	2333	12.83		386.4			
-4	13653	3792	5.47		286.3	450	71.0	
	11534	3204	10.50		390.5			
	8667	2408	13.43		417.4			
-2	14739	4094	5.47		309.1	500	71.0	
	11881	3300	10.81		414.2			
	9095	2526	13.80		450.3			
0	15917	4421	5.73		349.7	560	71.0	
	13200	3667	10.86		461.3			
	10540	2928	13.61		494.2			
+2	16878	4688	5.86	379.2	630	71.0		
	13896	3860	11.13	499.0				
	11342	3151	14.06	549.7				
+4	17522	4867	6.36	426.9	630	71.0		
	14608	4058	11.45	539.4				
	11877	3299	14.33	586.3				



### 1200ZLB-60 性能参数表 PERFORMANCE DATA

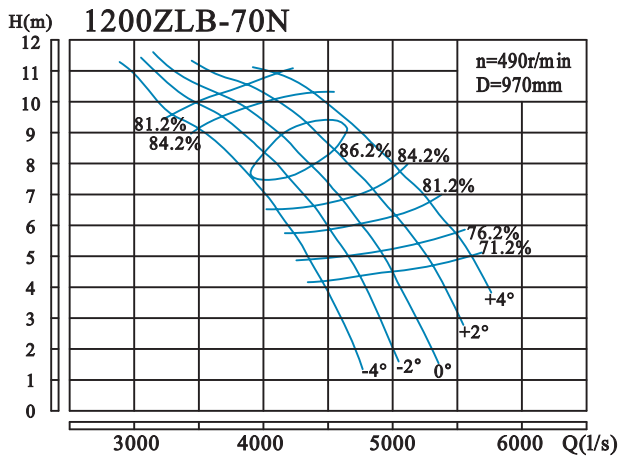
叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	14674	4076	7.80	490	390.5	500	79.8	970
	13532	3759	9.86		437.1			
	12611	3503	10.63		460.9			
-2	15864	4407	7.61		414.7	560	79.2	
	14458	4016	9.98		465.0			
	12600	3500	11.59		510.2			
0	16739	4650	7.63		439.5	560	79.1	
	14921	4145	10.49		503.1			
	13890	3858	11.51		532.3			
+2	17532	4870	8.22		500.5	630	78.3	
	15487	4302	11.09		550.3			
	13738	3816	12.31		587.0			
+4	18728	5202	7.99	518.1	710	78.6		
	16519	4588	11.14	590.6				
	14474	4021	12.55	632.2				



### 1200ZLB-70 性能参数表 PERFORMANCE DATA

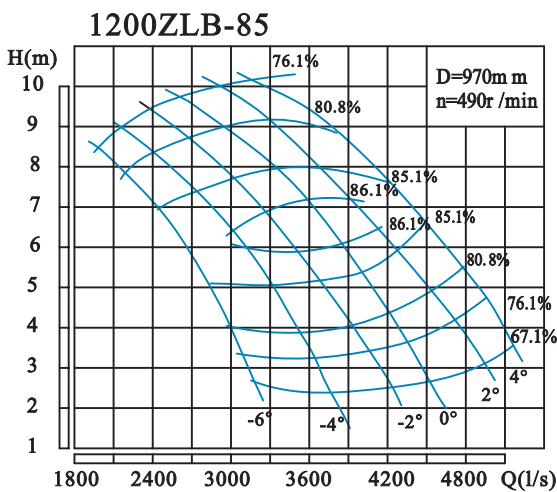
叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	14804	4112	4.48	490	222.2	400	81.3	970
	13159	3655	7.88		331.2			
	10898	3027	10.15		380.0			
-4	15832	4398	4.60		243.9	450	81.3	
	13488	3747	8.36		355.9			
	11309	3141	10.60		412.0			
-2	16655	4626	4.78		266.6	500	81.3	
	14187	3941	8.72		390.4			
	11555	3210	10.74		426.7			
0	17477	4855	5.13		300.7	500	81.3	
	14763	4101	9.10		419.2			
	11843	3290	11.10		451.9			
+2	18094	5026	5.37	325.8	560	81.3		
	15133	4204	9.19	431.8				
	11967	3324	11.22	461.5				
+4	18999	5277	5.85	372.5	560	81.3		
	15709	4364	9.79	480.0				
	12707	3530	11.46	500.5				

### 1200 ZLB performance curve/ data sheet



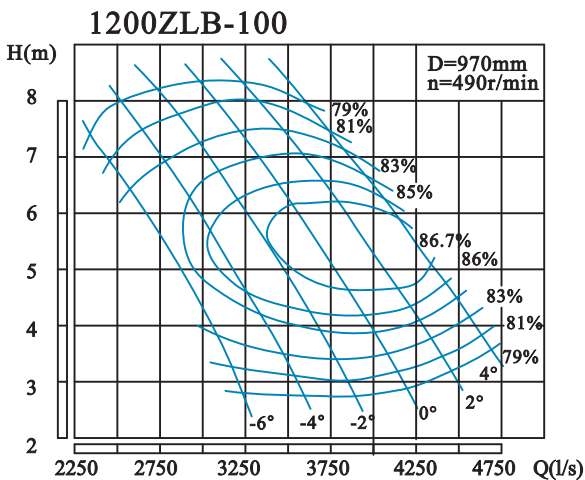
**1200ZLB-70N** 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	15195	4221	5.87	490	297.1	400	81.7	970
	13863	3851	7.82		342.4		86.2	
	11579	3216	9.79		389.7		79.2	
-2	16397	4555	5.62		314.3	450	79.8	
	14734	4093	8.04		373.3		86.4	
	12306	3418	10.11		421.7		80.3	
0	17302	4806	5.78		342.1	500	79.5	
	15113	4198	8.67		410.9		86.8	
	12981	3606	10.36		457.0		80.1	
+2	18318	5088	6.00		374.9	560	79.7	
	15893	4415	8.99		450.2		86.4	
	13829	3841	10.61		496.6		80.4	
+4	19374	5382	6.24	417.6	560	78.8		
	16978	4716	9.17	493.7		85.8		
	15254	4237	10.69	535.3		82.9		



**1200ZLB-85** 性能参数表 PERFORMANCE DATA

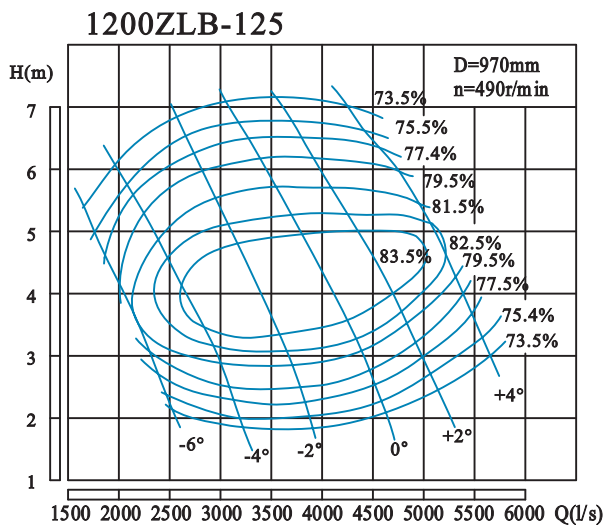
叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	11141	3095	3.33	490	133.0	250	76.1	970
	10186	2829	5.06		165.2		85.1	
	7193	1998	8.54		219.9		76.1	
-4	12908	3586	3.22		148.7	280	76.1	
	11015	3060	6.20		216.2		86.1	
	7878	2188	9.06		255.6		76.1	
-2	14513	4031	3.33		173.2	315	76.1	
	12530	3480	6.09		241.4		86.1	
	8672	2409	9.49		294.7		76.1	
0	15612	4337	3.64		203.3	355	76.1	
	13737	3816	6.32		271.5		87.1	
	9537	2649	9.85		336.4		76.1	
+2	16694	4637	4.18	250.0	400	76.1		
	14675	4076	6.75	313.5		86.1		
	10402	2890	10.14	377.7		76.1		
+4	17758	4933	4.69	298.4	450	76.1		
	14999	4166	7.63	366.6		85.1		
	11358	3155	10.13	412.0		76.1		



**1200ZLB-100** 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	11391	3164	3.28	490	125.8	220	81.0	970
	10281	2856	4.81		158.6		85.0	
	8841	2456	6.92		206.0		81.0	
-4	12748	3541	3.10		133.1	250	81.0	
	11514	3198	4.89		178.4		86.1	
	9540	2650	7.52		241.4		81.0	
-2	13858	3850	3.04		141.9	280	81.0	
	12542	3484	5.01		197.7		86.7	
	10281	2856	7.76		268.4		81.0	
0	14845	4124	3.13		156.2	315	81.0	
	13571	3770	5.03		213.8		87.0	
	11103	3084	7.94		296.6		81.0	
+2	15832	4398	3.46	184.4	355	81.0		
	14393	3998	5.29	237.1		87.5		
	12008	3336	7.98	322.2		81.0		
+4	16696	4638	3.82	214.6	355	81.0		
	15421	4284	5.31	256.0		87.2		
	13365	3712	7.58	340.9		81.0		

### 1200 ZLB performance curve/ data sheet

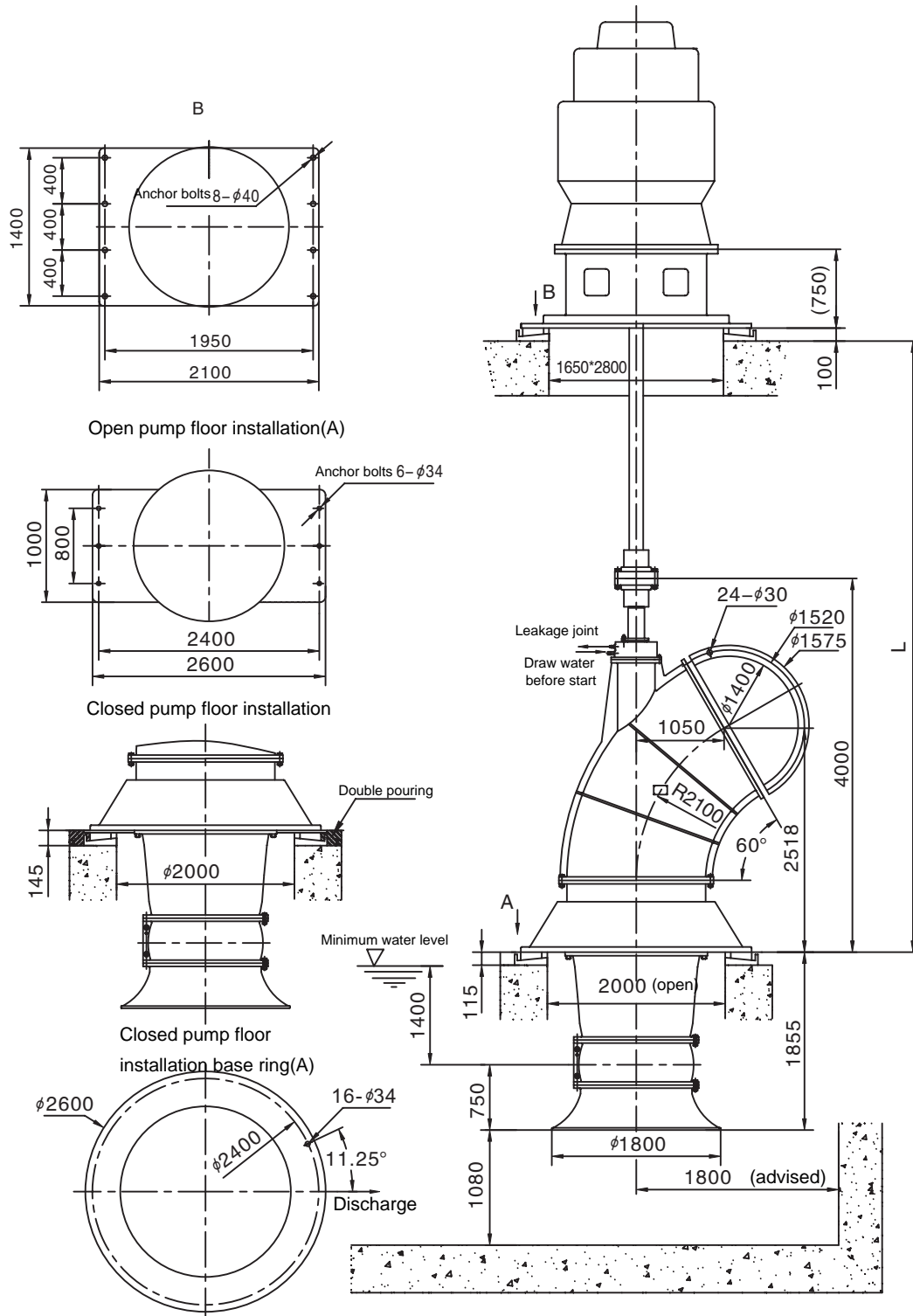


**1200ZLB-125 性能参数表 PERFORMANCE DATA**

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	11309	3141	1.97	490	80.3	185	75.5	970
	10198	2833	3.62		119.6		84.0	
	7484	2079	5.97		161.1		75.5	
-2	14064	3907	1.91		96.9	250	75.5	
	12625	3507	3.75		152.6		84.4	
	9458	2627	6.69		228.0		75.5	
0	16449	4569	2.27		134.5	315	75.5	
	14886	4135	4.08		194.7		85.0	
	11309	3141	6.92		282.3		75.5	
+2	18300	5083	2.57		169.4	355	75.5	
	16531	4592	4.27		227.9		84.4	
	13159	3655	6.92		328.5		75.5	
+4	19945	5540	3.34	240.4	400	75.5		
	18752	5209	5.01	307.6		83.2		
	15956	4432	6.75	388.1		75.5		

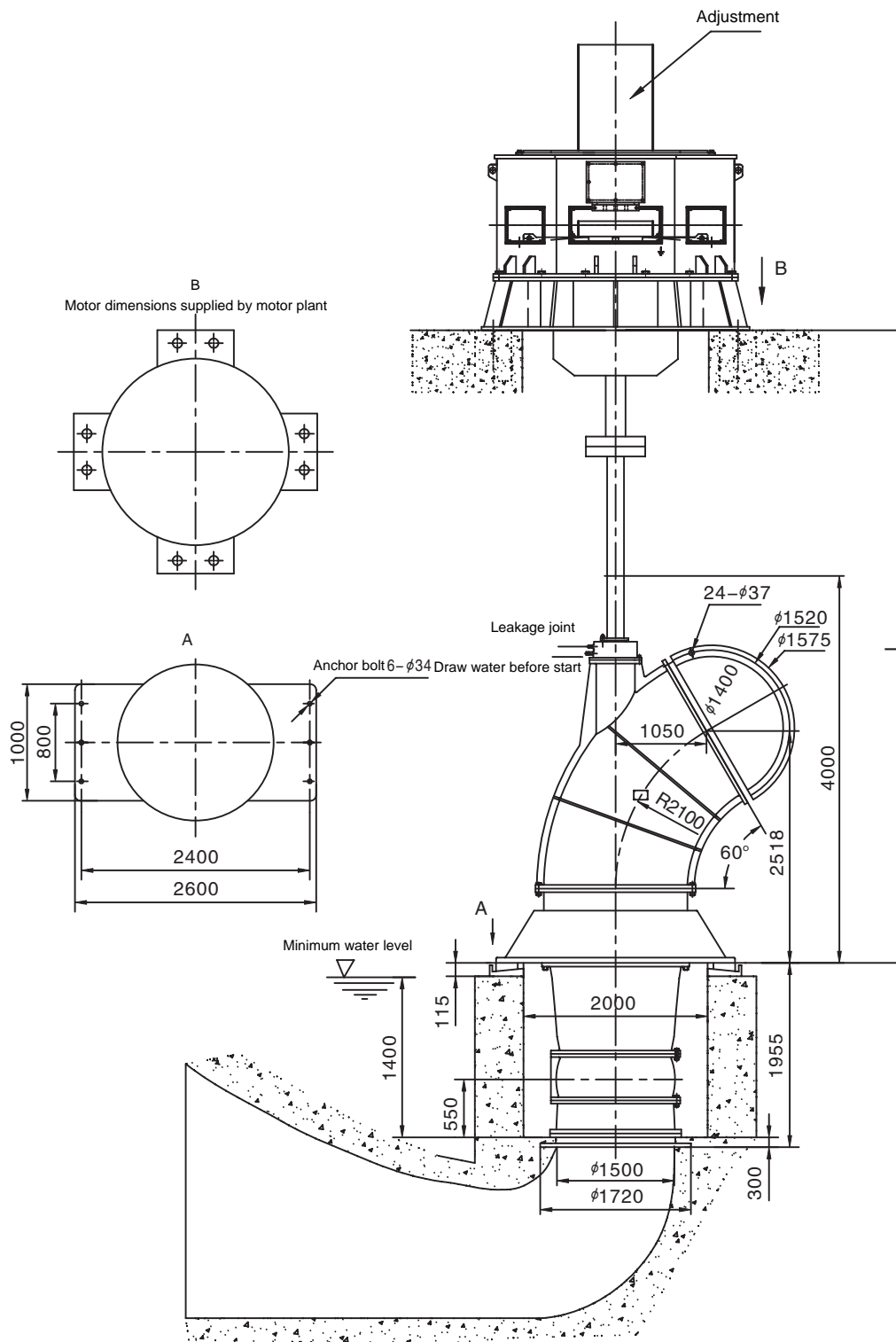
### 1400 ZLB(Q) outside installation diagram 1

Model	Pump weight	Rotation part	Maximum axial force	Introduction
1400ZLB(Q)-50	7000	3000	15300	1, There are two types of pump. One has transmission parts and another has no. 2, Biggest pump part weight 4200kg 3, Longest pump part length 4700mm.
1400ZLB(Q)-60	7000	3000	14000	
1400ZLB(Q)-70	7000	3000	12000	
1400ZLB(Q)-70N	7000	3000	11800	
1400ZLB(Q)-85	7000	3000	10500	
1400ZLB(Q)-100	7000	3000	8900	
1400ZLB(Q)-125	7000	3000	7800	

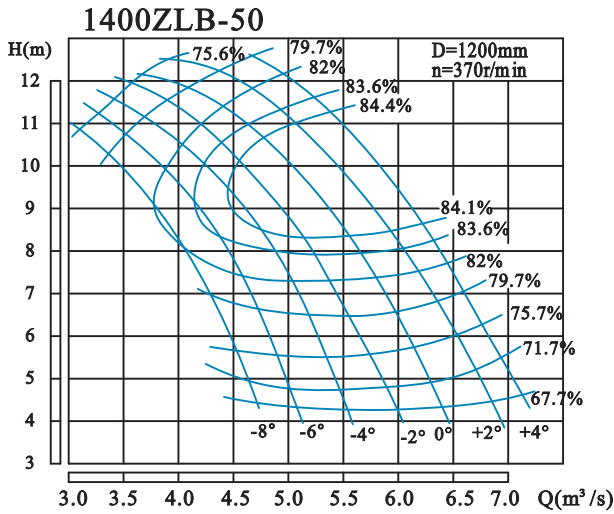


1400ZLB(Q)轴流泵外形安装图 (二)

Model	Pump weight	Rotation part	Maximum axial force	Introduction
1400ZLB(Q)-50	7000	3000	15300	1, There are two types of pump. One has transmission parts and another has no. 2, Biggest pump part weight 4200kg 3, Longest pump part length 4700mm.
1400ZLB(Q)-60	7000	3000	14000	
1400ZLB(Q)-70	7000	3000	12000	
1400ZLB(Q)-70N	7000	3000	11800	
1400ZLB(Q)-85	7000	3000	10500	
1400ZLB(Q)-100	7000	3000	8900	
1400ZLB(Q)-125	7000	3000	7800	

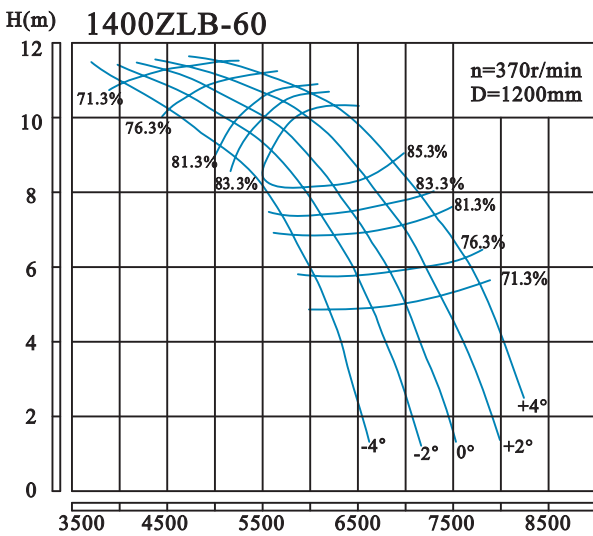


### 1400 ZLB performance curve/data sheet



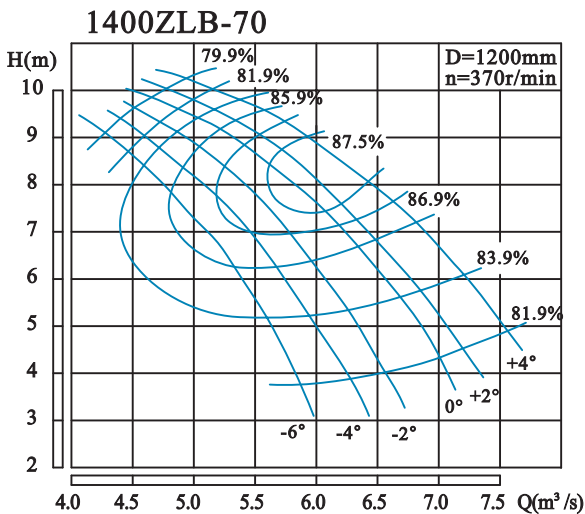
#### 1400ZLB-50 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	17975	4993	4.86	370	331.9	500	71.7	1200
	15169	4214	8.89		442.7		82.9	
	12009	3336	11.19		484.0		75.6	
-4	19519	5422	4.77		358.7	560	70.7	
	16489	4580	9.16		488.9		84.1	
	12391	3442	11.72		522.8		75.6	
-2	21073	5853	4.77		387.3	630	70.7	
	16986	4718	9.43		518.6		84.1	
	13003	3612	12.05		564.0		75.6	
0	22755	6321	5.00		438.1	630	70.7	
	18872	5242	9.48		571.1		85.3	
	15068	4186	11.88		619.0		78.7	
+2	24131	6703	5.11	475.1	710	70.7		
	19866	5518	9.72	624.8		84.1		
	16216	4504	12.27	688.4		78.7		
+4	25050	6958	5.55	534.9	800	70.7		
	20885	5801	9.99	675.3		84.1		
	16980	4717	12.50	734.2		78.7		



#### 1400ZLB-60 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	20979	5827	6.80	370	479.4	630	81.1	1200
	19346	5374	8.60		537.0		84.4	
	18030	5008	9.28		565.7		80.5	
-2	22681	6300	6.64		509.0	710	80.5	
	20670	5742	8.71		571.4		85.8	
	18013	5004	10.11		626.0		79.2	
0	23932	6648	6.66		539.4	710	80.4	
	21332	5926	9.16		618.1		86.0	
	19859	5516	10.04		653.6		83.1	
+2	25065	6962	7.17		614.3	800	79.6	
	22142	6150	9.68		676.1		86.3	
	19641	5456	10.75		720.4		79.8	
+4	26775	7437	6.97	635.9	800	79.9		
	23616	6560	9.72	725.7		86.1		
	20693	5748	10.95	775.8		79.5		



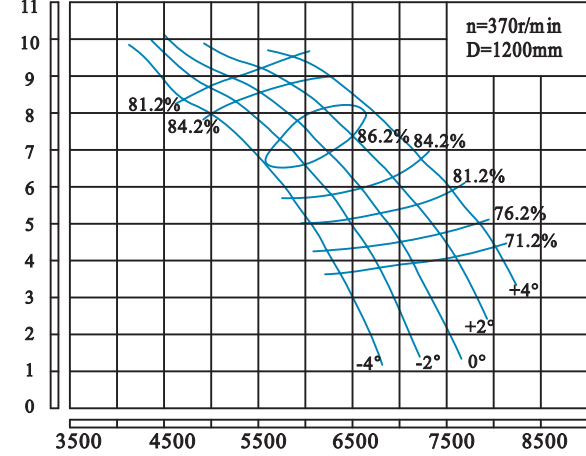
#### 1400ZLB-70 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	21165	5879	3.91	370	275.1	500	81.9	1200
	18813	5226	6.88		410.4		85.9	
	15580	4328	8.86		470.5		79.9	
-4	22635	6287	4.01		302.1	560	81.9	
	19284	5357	7.29		441.0		86.9	
	16168	4491	9.25		510.1		79.9	
-2	23811	6614	4.17		330.1	560	81.9	
	20283	5634	7.61		483.7		86.9	
	16520	4589	9.38		528.3		79.9	
0	24986	6941	4.48		372.4	630	81.9	
	21106	5863	7.94		519.6		87.9	
	16932	4703	9.69		559.5		79.9	
+2	25868	7186	4.69	403.5	630	81.9		
	21635	6010	8.02	535.0		88.4		
	17108	4752	9.79	571.4		79.9		
+4	27162	7545	5.10	461.3	630	81.9		
	22458	6238	8.54	594.8		87.9		
	18167	5046	10.00	619.7		79.9		



## 1400 ZLB performance curve/data sheet

**1400ZLB-70N**

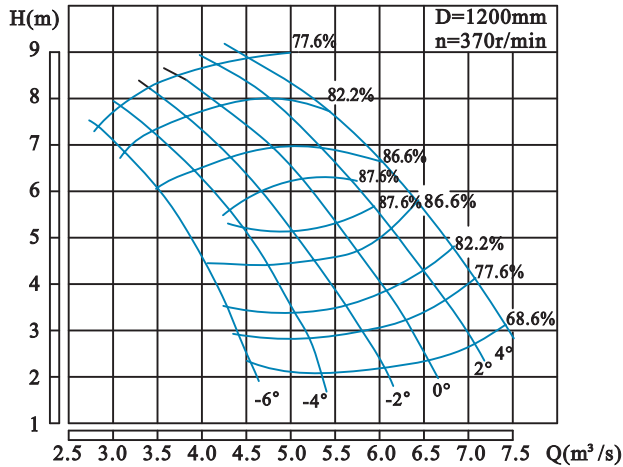


**1400ZLB-70N**

性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-4	21724	6034	5.12	370	370.6	500	81.7	1200	
	19820	5506	6.82		427.2		86.2		
	16553	4598	8.54		486.1		79.2		
-2	23443	6512	4.90		392.1	560	79.8		1200
	21065	5851	7.02		465.7		86.4		
	17593	4887	8.82		526.1		80.3		
0	24735	6871	5.04		426.8	630	79.5		1200
	21606	6002	7.57		512.7		86.8		
	18558	5155	9.04		570.1		80.1		
+2	26188	7275	5.23		467.8	630	79.7		1200
	22722	6312	7.84		561.7		86.4		
	19770	5492	9.26		619.5		80.4		
+4	27699	7694	5.45	521.0	700	78.8	1200		
	24273	6742	8.00	616.0		85.8			
	21808	6058	9.33	667.9		82.9			

**1400ZLB-85**

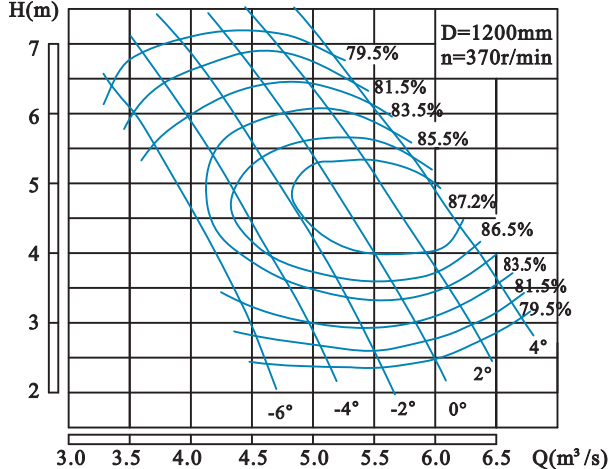


**1400ZLB-85**

性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-6	15928	4425	2.91	370	162.7	315	77.6	1200	
	14562	4045	4.42		202.5		86.6		
	10284	2857	7.45		269.1		77.6		
-4	18454	5126	2.81		182.0	355	77.6		1200
	15748	4374	5.41		265.2		87.6		
	11263	3129	7.91		312.7		77.6		
-2	20748	5763	2.91		212.0	400	77.6		1200
	17913	4976	5.31		296.0		87.6		
	12397	3444	8.28		360.5		77.6		
0	22320	6200	3.07		240.7	450	77.6		1200
	19640	5456	5.51		333.0		88.6		
	13635	3787	8.60		411.6		77.6		
+2	23867	6630	3.65	305.8	500	77.6	1200		
	20980	5828	5.89	384.4		87.6			
	14872	4131	8.85	462.1		77.6			
+4	25388	7052	4.10	365.1	560	77.6	1200		
	21444	5957	6.66	449.4		86.6			
	16238	4510	8.84	504.0		77.6			

**1400ZLB-100**

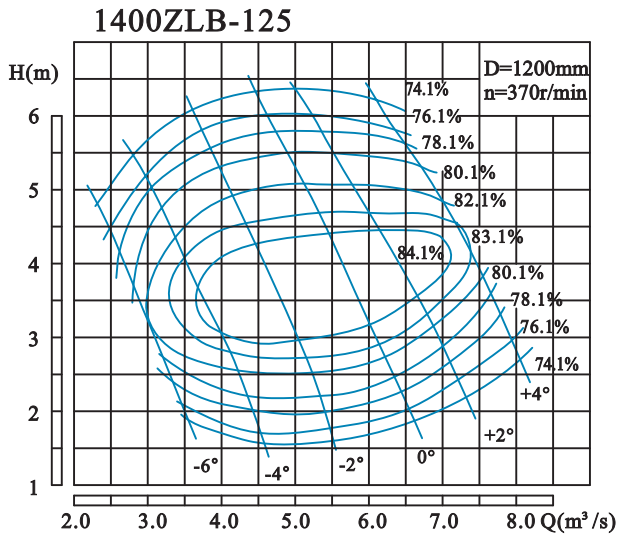


**1400ZLB-100**

性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-6	16285	4524	2.86	370	155.8	280	81.5	1200	
	14698	4083	4.20		196.5		85.5		
	12640	3511	6.04		255.1		81.5		
-4	18225	5063	2.71		164.9	315	81.5		1200
	16462	4573	4.27		221.0		86.6		
	13640	3789	6.56		299.0		81.5		
-2	19813	5504	2.66		175.8	355	81.5		1200
	17931	4981	4.38		244.9		87.2		
	14698	4083	6.77		332.4		81.5		
0	21224	5896	2.73		193.5	400	81.5		1200
	19401	5389	4.39		264.8		87.5		
	15874	4409	6.93		367.3		81.5		
+2	22635	6287	3.02	228.4	400	81.5	1200		
	20577	5716	4.62	293.8		88.0			
	17167	4769	6.96	399.1		81.5			
+4	23869	6630	3.33	265.8	450	81.5	1200		
	22047	6124	4.64	317.3		87.7			
	19107	5308	6.62	422.2		81.5			

### 1400 ZLB performance curve/data sheet



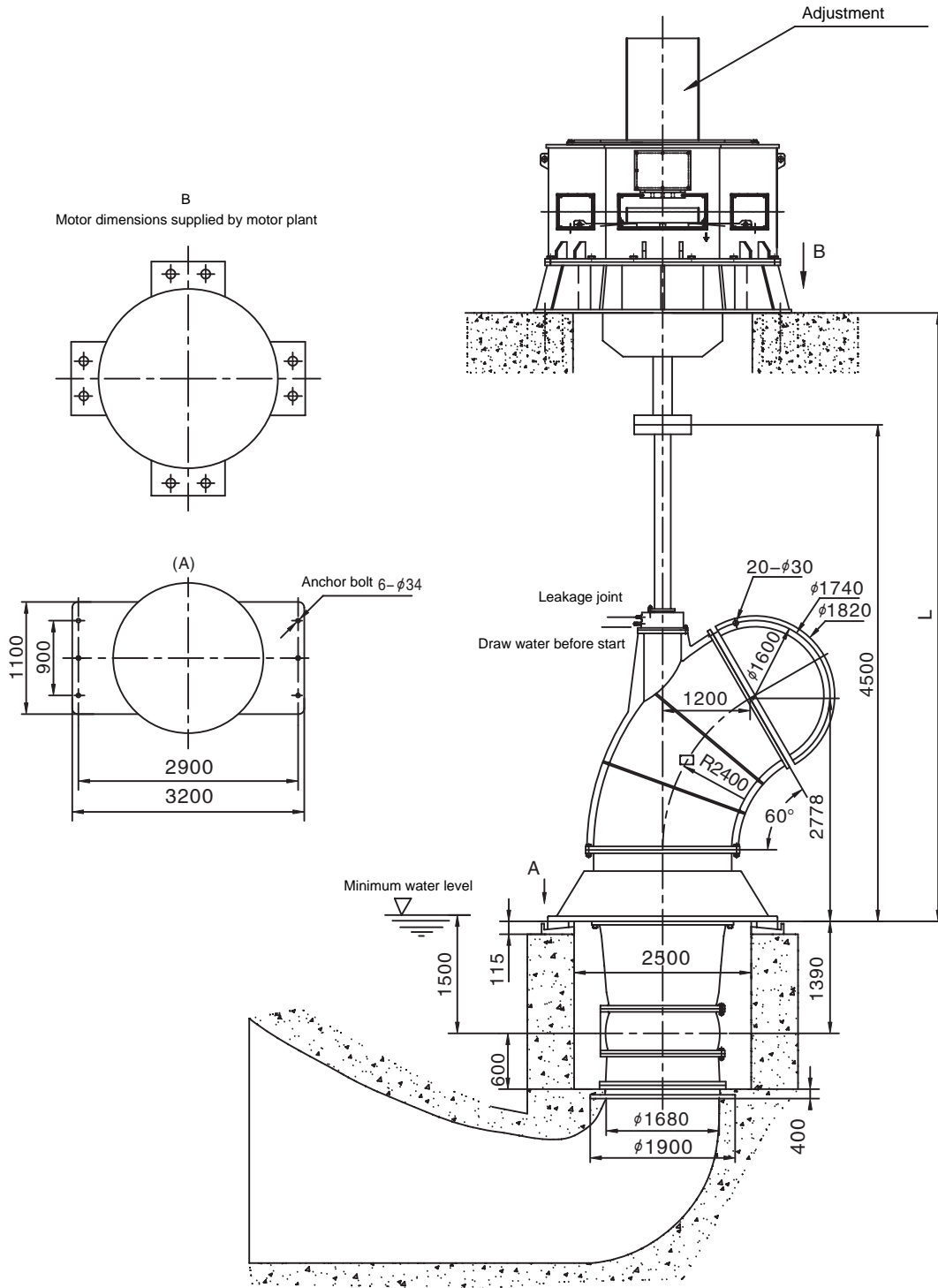
**1400ZLB-125 性能参数表 PERFORMANCE DATA**

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	16168	4491	1.61	370	93.4	200	76.1	1200
	14580	4050	3.16		148.1			
	10700	2972	5.21		199.4			
-2	20107	5585	1.67		119.9	280	76.1	
	18049	5014	3.27		189.1		85.0	
	13522	3756	5.83		282.2		76.1	
0	23517	6532	1.98		166.5	355	76.1	
	21283	5912	3.56		241.1		85.6	
	16168	4491	6.04		349.5		76.1	
+2	26162	7267	2.24		209.6	400	76.1	
	23634	6565	3.73		282.3		85.0	
	18813	5226	6.04		406.6		76.1	
+4	28514	7921	2.92	297.5	500	76.1		
	26809	7447	4.38	381.1		83.8		
	22635	6287	5.83	472.4		76.1		



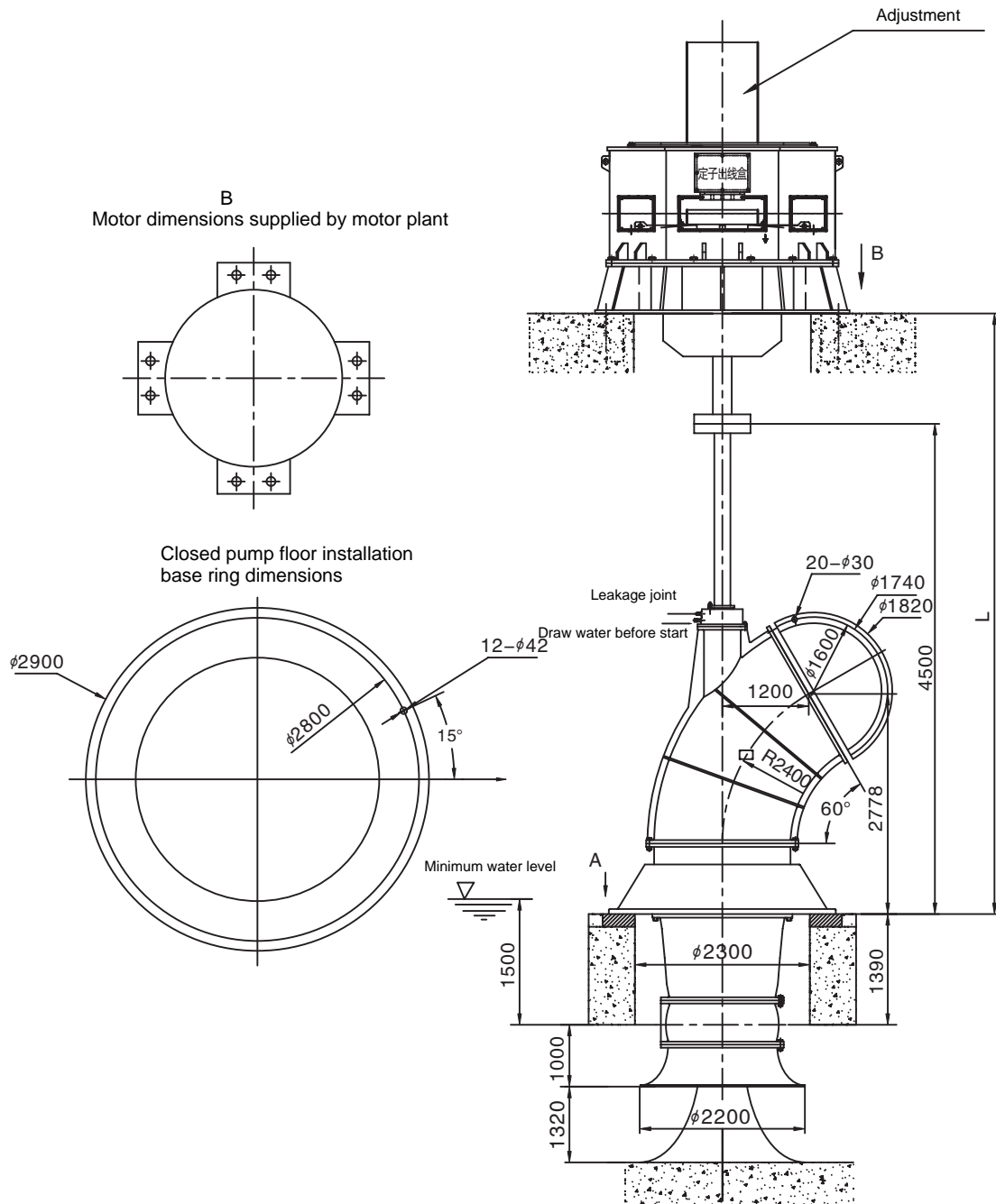
### 1600ZLB(Q) outside installation diagram 1

Model	Pump weight	Rotation part	Maximum axial force	Introduction
1600ZLB(Q)-50	16000	5000	21400	1, Motor dimensions is for reference only 2, Biggest pump part weight 6000kg 3, Longest pump part length 5000mm.
1600ZLB(Q)-60	16000	5000	19000	
1600ZLB(Q)-70	16000	5000	16700	
1600ZLB(Q)-70N	16000	5000	16000	
1600ZLB(Q)-85	16000	5000	10900	
1600ZLB(Q)-100	16000	5000	9400	
1600ZLB(Q)-125	16000	5000	9200	

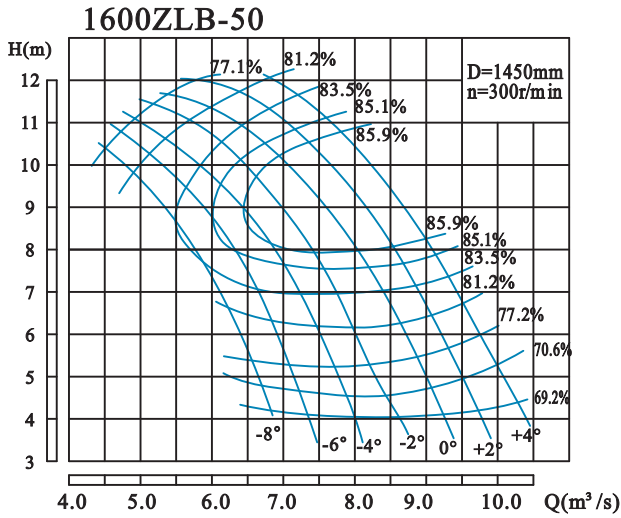


### 1600ZLB(Q) outside installation diagram 2

Model	Pump weight	Rotation part	Maximum axial force	Introduction
1600ZLB(Q)-50	16000	5000	21400	1, Motor dimensions is for reference only 2, Biggest pump part weight 6000kg 3, Longest pump part length 5000mm.
1600ZLB(Q)-60	16000	5000	19000	
1600ZLB(Q)-70	16000	5000	16700	
1600ZLB(Q)-70N	16000	5000	16000	
1600ZLB(Q)-85	16000	5000 <td 10900		
1600ZLB(Q)-100	16000	5000	9400	
1600ZLB(Q)-125	16000	5000	9200	

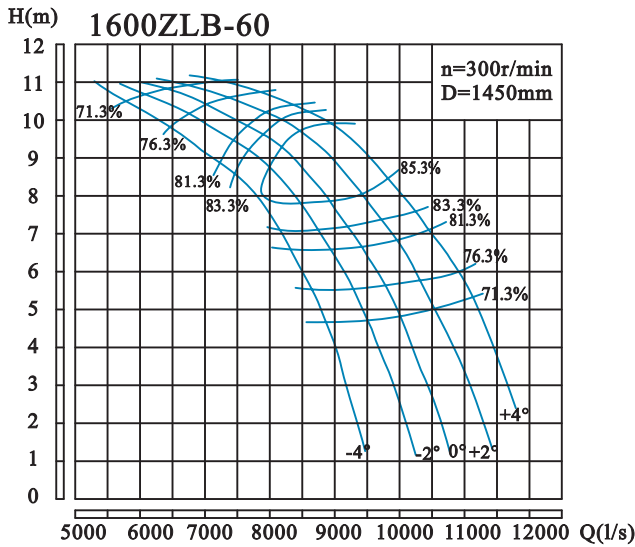


## 1600 ZLB performance curve/ data sheet



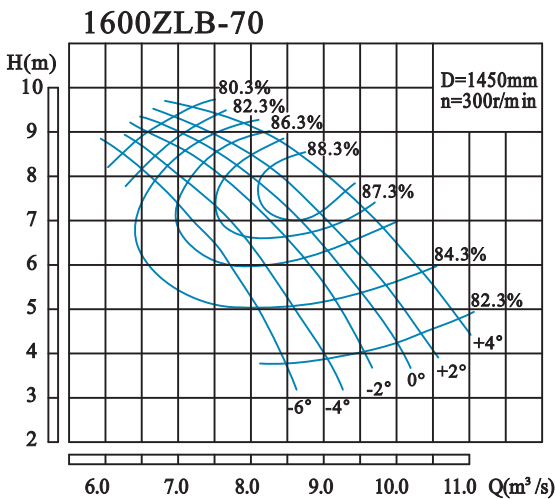
### 1600ZLB-50 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	25712	7142	4.67	300	452.6	710	72.2	1450
	21699	6028	8.53		597.0		84.4	
	17178	4772	10.74		651.7		77.1	
-4	27921	7756	4.58		482.3		72.2	
	23588	6552	8.79		659.5		85.6	
	17725	4924	11.25		703.8		77.1	
-2	30144	8373	4.58		520.7	72.2		
	24298	6749	9.05		699.6	85.6		
	18600	5167	11.56		759.4	77.1		
0	32551	9042	4.80		589.0	72.2		
	26996	7499	9.10		779.2	85.8		
	21555	5987	11.40		834.0	80.2		
+2	34518	9588	4.91	638.8	72.2			
	28418	7894	9.33	842.9	85.6			
	23196	6443	11.78	927.5	80.2			
+4	35833	9954	5.32	719.2	72.2			
	29876	8299	9.59	911.0	85.6			
	24290	6747	12.00	989.3	80.2			



### 1600ZLB-60 性能参数表 PERFORMANCE DATA

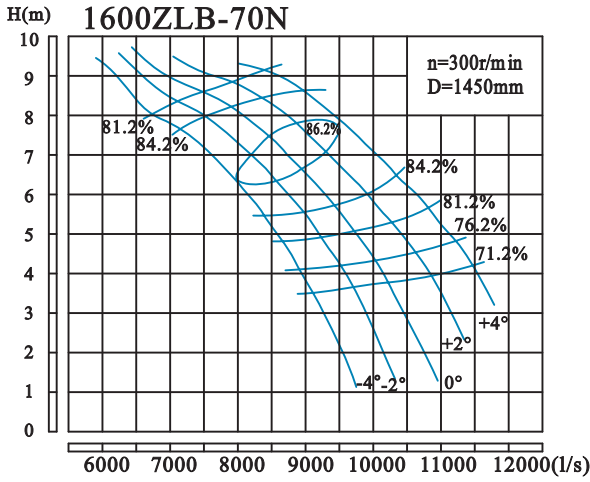
叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	30009	8336	6.53	300	658.2	900	81.1	1450
	27674	7687	8.26		737.3		84.4	
	25791	7164	8.91		776.7		80.5	
-2	32444	9012	6.37		698.9		80.5	
	29568	8213	8.36		784.5		85.8	
	25767	7158	9.71		859.6		79.2	
0	34234	9509	6.39		740.6	80.4		
	30515	8476	8.79		848.7	86.0		
	28407	7891	9.64		897.5	83.1		
+2	35854	9960	6.88		843.4	79.6		
	31673	8798	9.29		928.4	86.3		
	28095	7804	10.31		989.1	79.8		
+4	38301	10639	6.69	873.1	79.9			
	33782	9384	9.33	996.4	86.1			
	29601	8222	10.51	1065.3	79.5			



### 1600ZLB-70 性能参数表 PERFORMANCE DATA

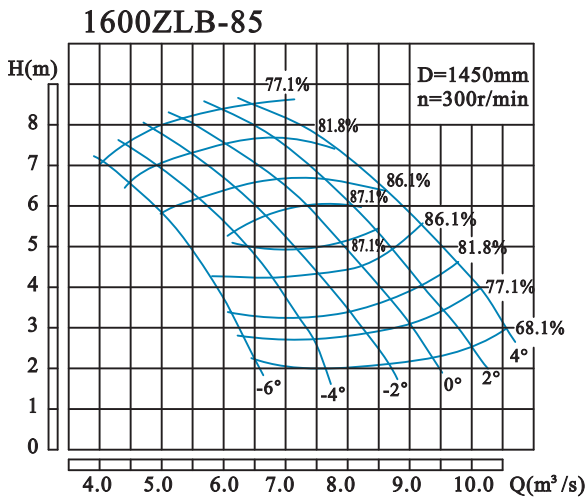
叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	30276	8410	3.75	300	375.9	710	82.3	1450
	26912	7476	6.60		560.8		86.3	
	22287	6191	8.50		642.9		80.3	
-4	32379	8994	3.85		412.7		82.3	
	27585	7662	7.00		602.7		87.3	
	23128	6424	8.88		696.9		80.3	
-2	34061	9461	4.00		451.1	82.3		
	29015	8060	7.30		661.1	87.3		
	23632	6564	9.00		721.8	80.3		
0	35743	9928	4.30		508.9	82.3		
	30192	8387	7.62		709.8	88.3		
	24221	6728	9.30		764.4	80.3		
+2	37004	10279	4.50	551.4	82.3			
	30949	8597	7.70	731.3	88.8			
	24473	6798	9.40	780.7	80.3			
+4	38854	10793	4.90	630.4	82.3			
	32126	8924	8.20	813.0	88.3			
	25987	7219	9.60	846.6	80.3			

## 1600 ZLB performance curve/ data sheet



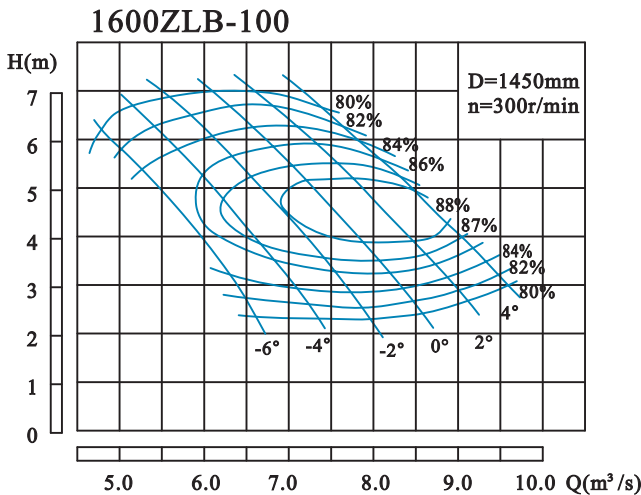
**1600ZLB-70N** 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-4	31075	8632	4.91	300	508.9	710	81.7	1450	
	28352	7875	6.55		586.5		86.2		
	23679	6578	8.20		667.5		79.2		
-2	33534	9315	4.70		538.3	800	79.8		1450
	30133	8370	6.74		639.5		86.4		
	25167	6991	8.47		722.4		80.3		
0	35383	9829	4.84		586.1	900	79.5		1450
	30907	8585	7.26		703.9		86.8		
	26547	7374	8.67		782.8		80.1		
+2	37462	10406	5.02		642.3	900	79.7		1450
	32503	9029	7.53		771.3		86.4		
	28281	7856	8.89		850.7		80.4		
+4	39622	11006	5.23	715.4	1000	78.8	1450		
	34722	9645	7.68	845.8		85.8			
	31196	8666	8.96	917.0		82.9			



**1600ZLB-85** 性能参数表 PERFORMANCE DATA

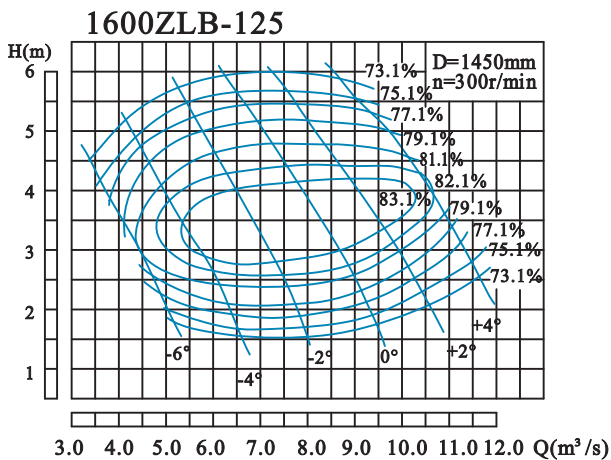
叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-6	22785	6329	2.79	300	224.9	400	77.1	1450	
	20831	5786	4.24		279.7		86.1		
	14711	4086	7.15		371.8		77.1		
-4	26398	7333	2.70		251.5	450	77.1		1450
	22527	6258	5.20		366.2		87.1		
	16112	4476	7.59		432.2		77.1		
-2	29680	8244	2.79		292.9	560	77.1		1450
	25624	7118	5.10		408.7		87.1		
	17734	4926	7.95		498.2		77.1		
0	31929	8869	3.05		343.7	630	77.1		1450
	28094	7804	5.29		459.8		88.1		
	19504	5418	8.25		568.8		77.1		
+2	34141	9484	3.50	422.7	710	77.1	1450		
	30012	8337	5.65	530.8		87.1			
	21274	5909	8.49	638.7		77.1			
+4	36316	10088	3.93	504.5	710	77.1	1450		
	30675	8521	6.39	620.6		86.1			
	23228	6452	8.48	696.5		77.1			



**1600ZLB-100** 性能参数表 PERFORMANCE DATA

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-6	23296	6471	2.75	300	212.9	400	82.0	1450	
	21025	5840	4.03		268.5		86.0		
	18082	5023	5.80		348.5		82.0		
-4	26071	7242	2.60		225.3	450	82.0		1450
	23548	6541	4.10		302.1		87.1		
	19511	5420	6.30		408.5		82.0		
-2	28342	7873	2.55		240.2	500	82.0		1450
	25651	7125	4.20		334.7		87.7		
	21025	5840	6.50		454.2		82.0		
0	30360	8433	2.62		264.3	560	82.0		1450
	27753	7709	4.21		362.0		88.0		
	22707	6308	6.65		501.8		82.0		
+2	32379	8994	2.90	312.0	630	82.0	1450		
	29435	8176	4.43	401.5		88.5			
	24557	6821	6.68	545.1		82.0			
+4	34145	9485	3.20	363.1	630	82.0	1450		
	31538	8760	4.45	433.6		88.2			
	27333	7592	6.35	576.8		82.0			

### 1600 ZLB performance curve/ data sheet

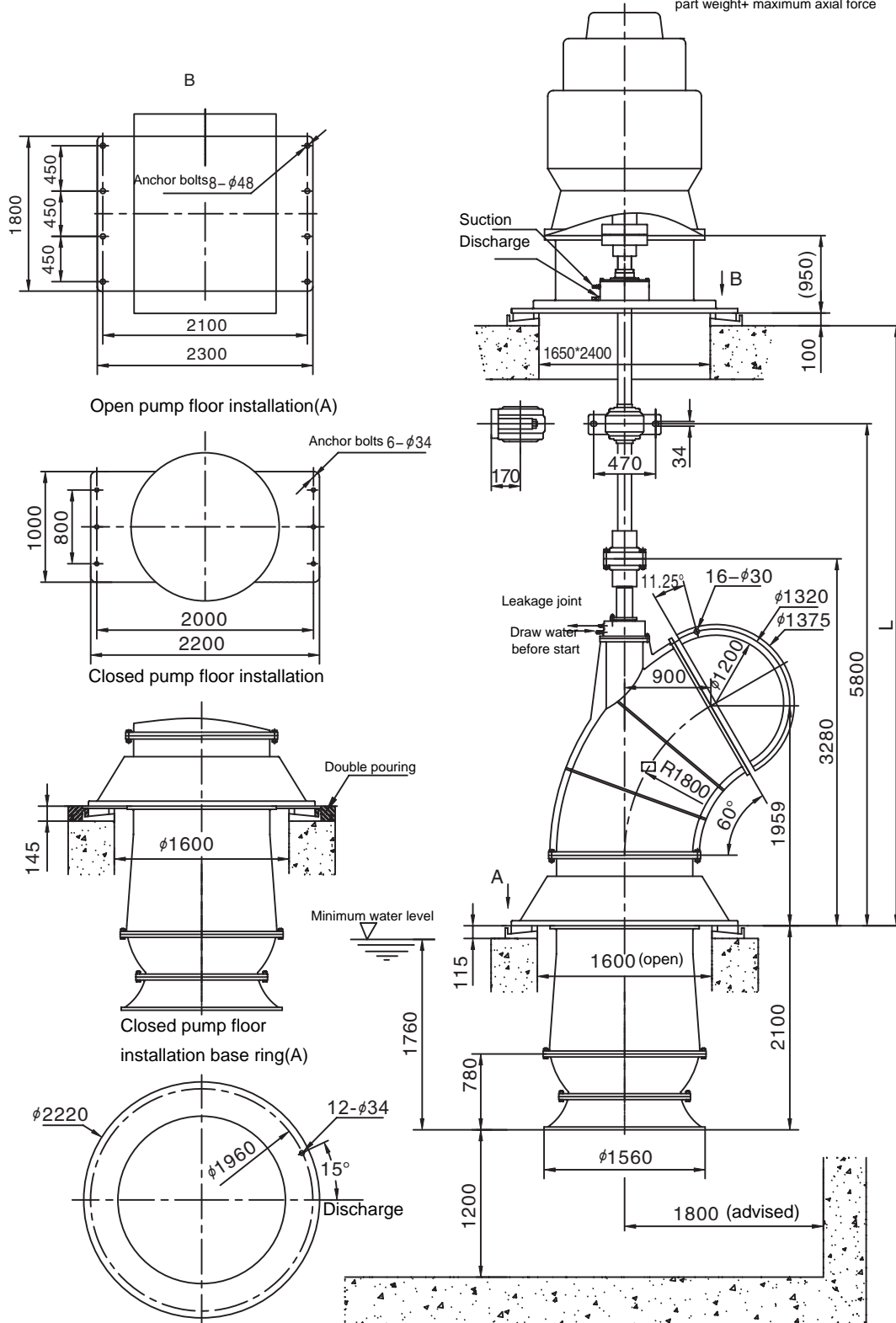


**1600ZLB-125 性能参数表 PERFORMANCE DATA**

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (KW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m³/h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	23128	6424	1.65	300	135.6	280	76.6	1450
	20857	5794	3.03		202.2		85.1	
	15306	4252	5.00		272.0		76.6	
-2	28762	7990	1.60		163.5	400	76.6	
	25819	7172	3.14		258.1		85.5	
	19343	5373	5.60		385.0		76.6	
0	33640	9344	1.90		227.1	500	76.6	
	30444	8457	3.42		329.1		86.1	
	23128	6424	5.80		476.7		76.6	
+2	37425	10396	2.15		285.9	560	76.6	
	33808	9391	3.58		385.4		85.5	
	26912	7476	5.80		554.7		76.6	
+4	40789	11330	2.80	405.9	710	76.6		
	38350	10653	4.20	520.1		84.3		
	32631	9064	5.65	655.2		76.6		

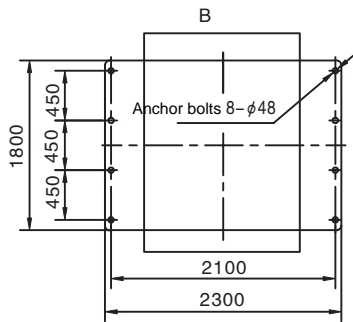
### 1200 HLB(Q) outside installation diagram 1

Model	Pump weight	Rotation part	Transmission part	Maximum axial force	Introduction
1200HLB(Q)-40	9000	2100	6500	18600	1, L is generally 4000-9000 and middle bearing is needed if L is longer than 7000. 2, Motor floor load = motor weight+ rotation part weight+ transmission part weight+ maximum axial force
1200HLB(Q)-50	9000	2100	6500	13000	
1200HLB(Q)-60	9000	2100	6500	11800	

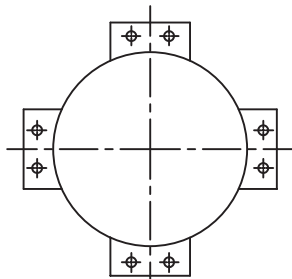


### 1200HLB(Q) outside installation diagram 2

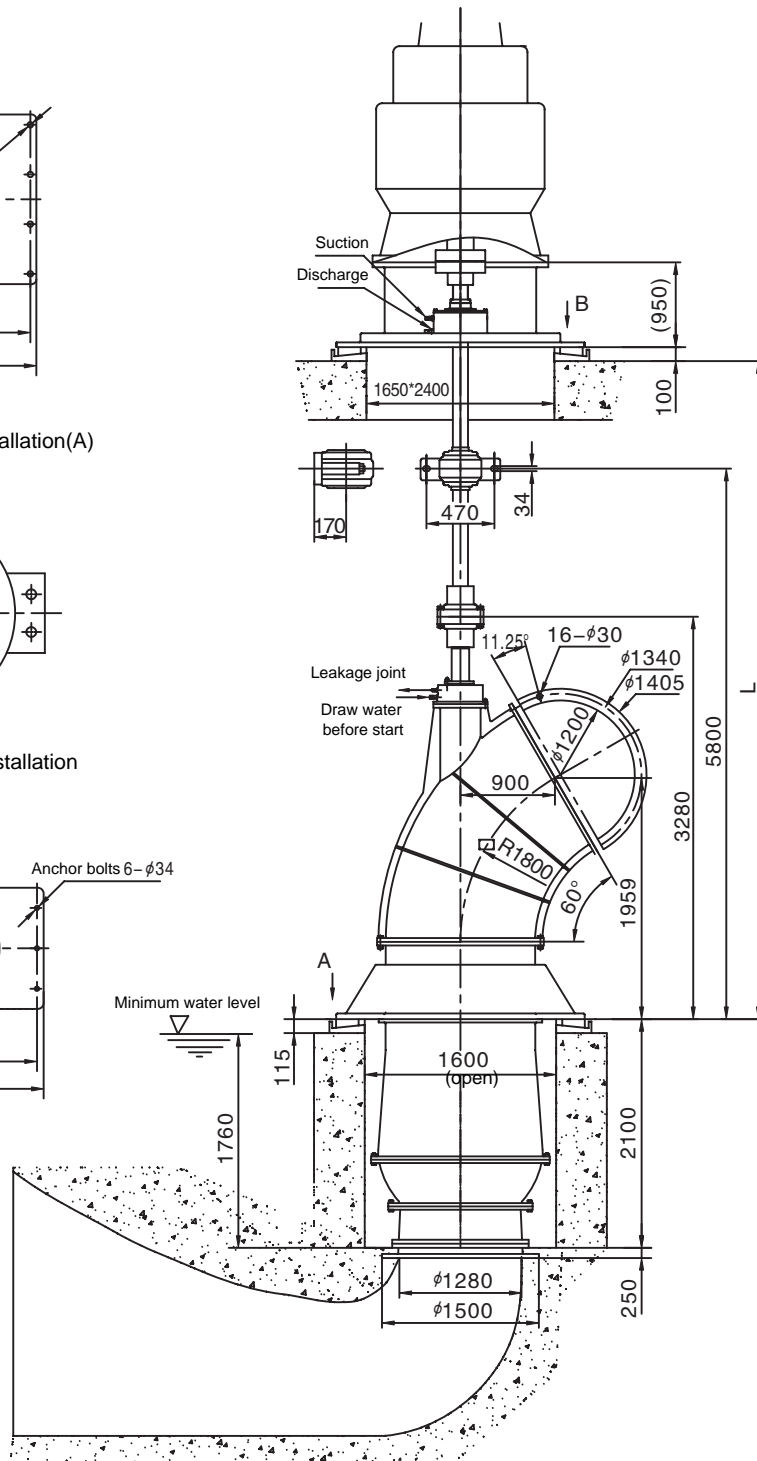
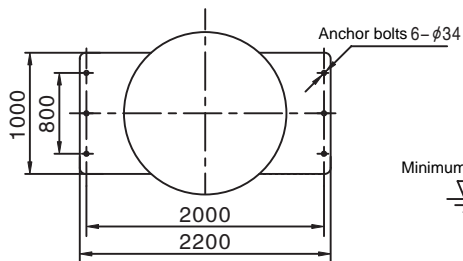
Model	Pump weight	Rotation part	Transmission part	Maximum axial force	Introduction
1200HLB(Q)-40	9000	2100	6500	18600	1, L is generally 4000-9000 and middle bearing is needed if L is longer than 7000. 2, Motor floor load = motor weight+ rotation part weight+ transmission part weight+ maximum axial force
1200HLB(Q)-50	9000	2100	6500	13000	
1200HLB(Q)-60	9000	2100	6500	11800	



Open pump floor installation(A)

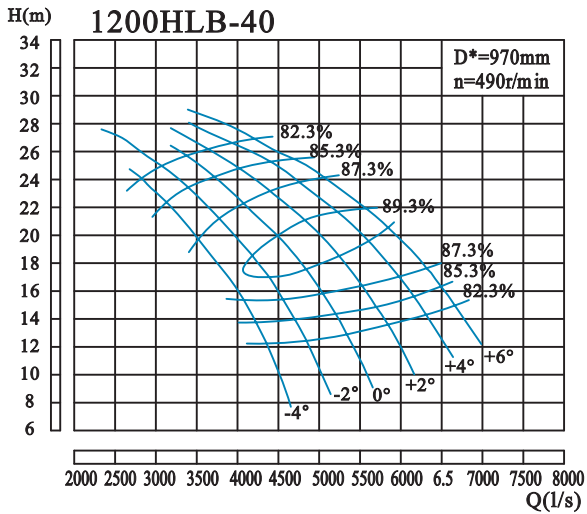


Closed pump floor installation



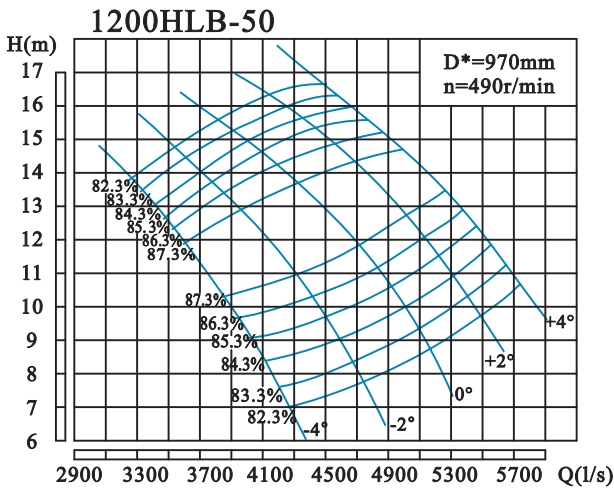


### 1200 HLB performance curve/data sheet



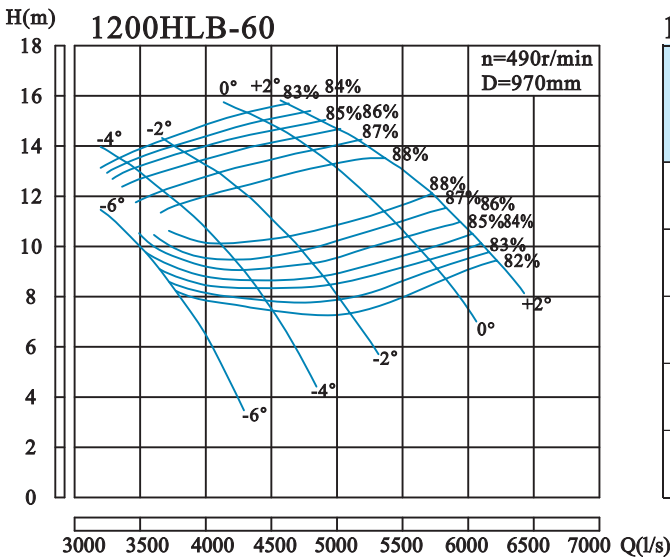
**1200HLB-40 性能参数表 PERFORMANCE DATA**

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 (kW) Power		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-4	15668	4352	12.36	490	656.9	900	80.2	970	
	13982	3884	17.16		755.1		86.5		
	10815	3004	23.15		832.0		81.9		
-2	17395	4832	12.57		740.9	1000	80.4		970
	15750	4375	17.24		847.8		87.2		
	12995	3610	22.24		930.0		84.6		
0	19163	5323	13.03		846.2	1250	80.3		970
	16449	4569	19.64		1003.1		87.7		
	13283	3690	24.31		1064.4		82.6		
+2	20808	5780	14.21		984.0	1250	81.8		970
	18094	5026	19.96		1120.9		87.7		
	14475	4021	24.78		1172.3		83.3		
+4	22535	6260	14.97	1125.4	1400	81.6	970		
	19616	5449	20.50	1255.8		87.2			
	16120	4478	25.01	1314.9		83.5			
+6	23604	6557	15.72	1228.2	1600	82.3	970		
	20479	5689	21.67	1383.3		87.3			
	16984	4718	25.42	1413.4		83.1			



**1200HLB-50 性能参数表 PERFORMANCE DATA**

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 (kW) Power		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-4	15298	4249	6.92	490	350.4	560	82.3	970	
	13159	3655	11.70		480.1		87.3		
	11720	3256	13.73		532.2		82.3		
-2	17066	4741	7.76		438.1	710	82.3		970
	14393	3998	12.77		572.7		87.4		
	12666	3518	14.68		615.2		82.3		
0	18546	5152	8.72		534.6	800	82.3		970
	15750	4375	13.49		662.2		87.3		
	13858	3850	15.64		716.9		82.3		
+2	19739	5483	9.79		639.2	900	82.3		970
	16860	4683	14.33		753.2		87.3		
	15010	4169	16.36		812.0		82.3		
+4	20685	5746	10.74	735.1	900	82.3	970		
	18094	5026	14.92	842.0		87.3			
	16038	4455	16.71	886.7		82.3			



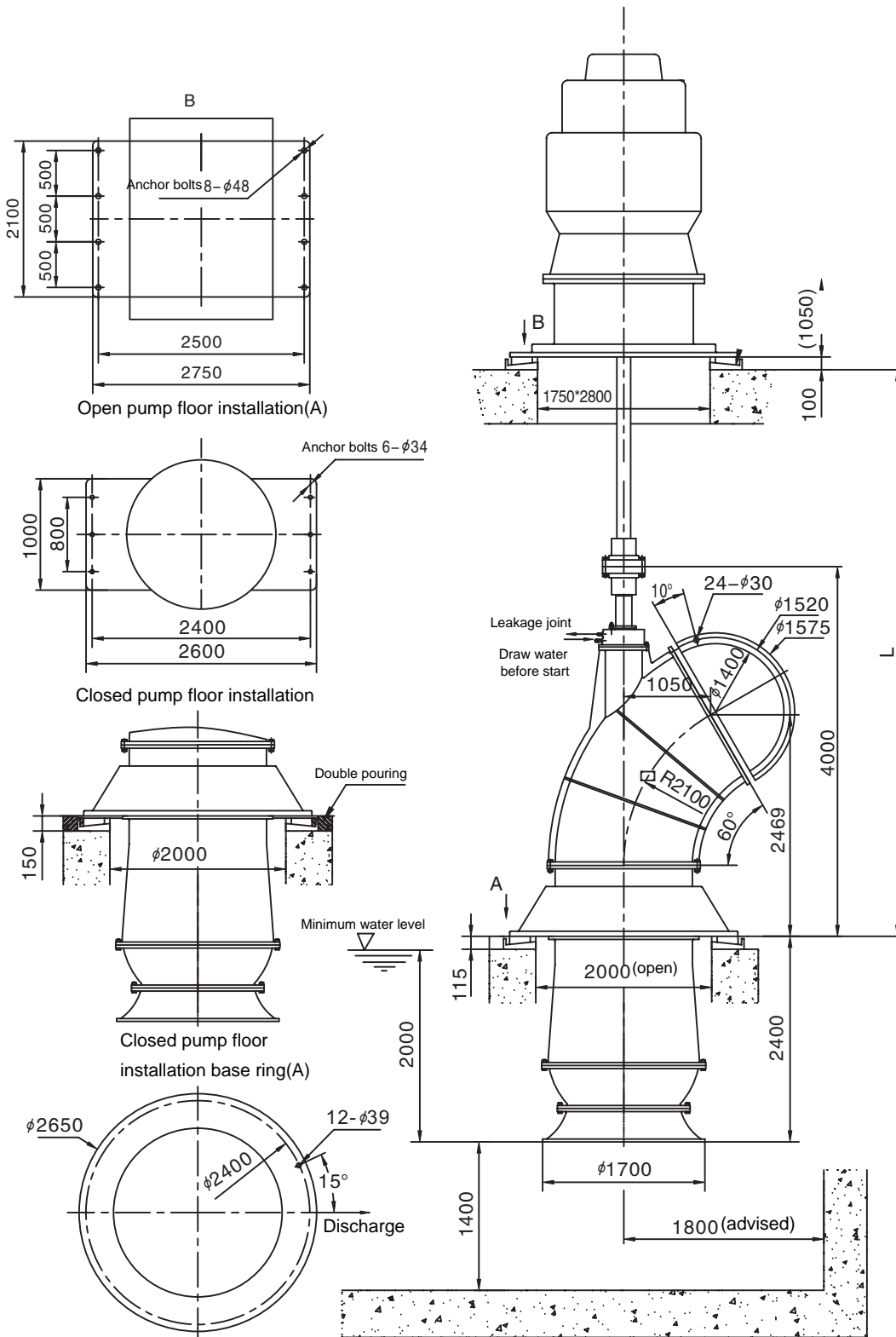
**1200HLB-60 性能参数表 PERFORMANCE DATA**

叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 (kW) Power		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)	
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power			
-6	13394	3720	8.58	490	376.6	450	83.1	970	
	12748	3541	9.75		396.8		85.3		
	11843	3290	11.49		430.1		86.1		
-4	16038	4455	7.86		412.7	560	83.1		970
	14286	3968	10.83		473.2		89.0		
	12028	3341	13.53		533.0		83.1		
-2	18090	5025	7.89		467.6	710	83.1		970
	15854	4404	11.50		558.1		88.9		
	13262	3684	14.27		619.8		83.1		
0	20751	5764	9.12		620.0	800	83.1		970
	17843	4956	13.25		726.5		88.6		
	15536	4316	15.34		780.8		83.1		
+2	22177	6160	9.78	710.4	900	83.1	970		
	19669	5464	13.23	801.2		88.4			
	16638	4622	15.70	855.7		83.1			



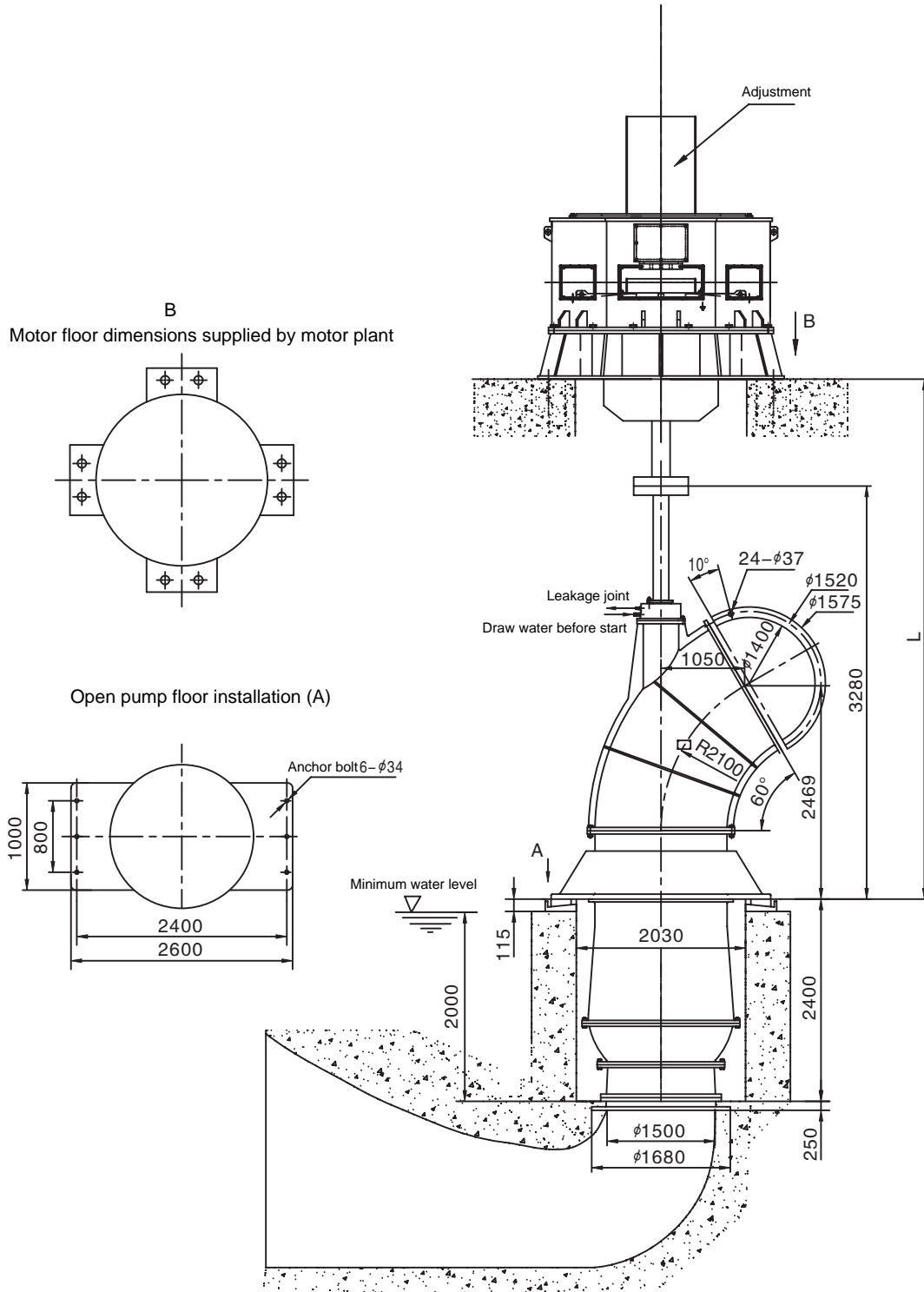
### 1400 HLB(Q) outside installation diagram 1

Model	Pump weight	Rotation part	Maximum axial force	Introduction
1400HLB(Q)-40	13000	3500	36000	1, Motor dimensions is for reference only 2, Biggest pump part weight 7000kg 3, Longest pump part length 5500mm.
1400HLB(Q)-50	13000	3500	18000	
1400HLB(Q)-60	13000	3500	14800	



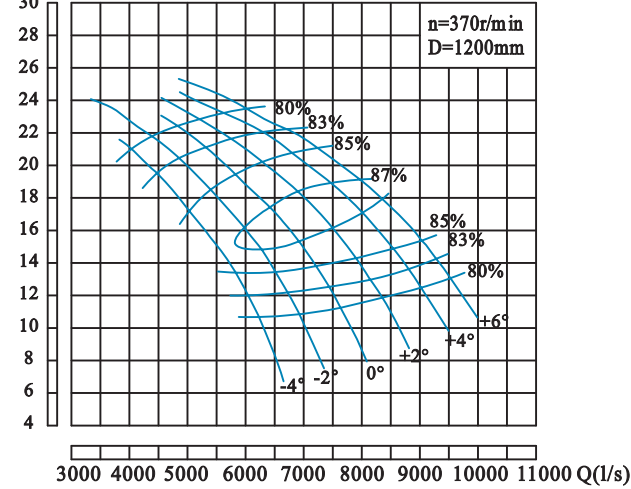
### 1400 HLB(Q) outside installation diagram 2

Model	Pump weight	Rotation part	Maximum axial force	Introduction
1400HLB(Q)-40	13000	3500	25000	1, Motro dimensions is for reference only 2, Biggest pump part weight 7000kg 3, Longest pump part length 5500mm.
1400HLB(Q)-50	13000	3500	18000	
1400HLB(Q)-60	13000	3500	14800	



## 1400 HLB performance curve/data sheet

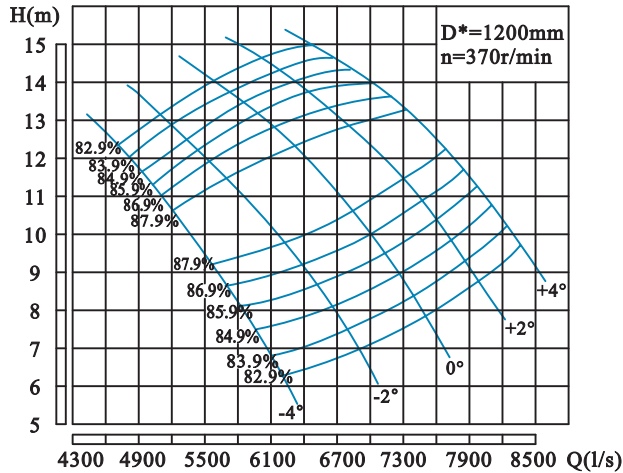
### 1400HLB-40



### 1400HLB-40

叶片安放角 Angle	流量 Q Capacity		扬程 H Head	转速 n Speed	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
	-4	22400	6222	10.78	370	819.5	1120	80.2
	19989	5553	14.97	942.1		86.5		
	15462	4295	20.20	1037.9		81.9		
-2	24869	6908	10.97	924.3		1250	80.4	
	22517	6255	15.04	1057.7			87.2	
	18578	5161	19.41	1160.3			84.6	
0	27397	7610	11.37	1055.7		1400	80.3	
	23517	6532	17.14	1251.4			87.7	
	18990	5275	21.21	1328.0			82.6	
+2	29749	8264	12.40	1227.7		1600	81.8	
	25868	7186	17.42	1398.4			87.7	
	20695	5749	21.63	1462.5			83.3	
+4	32218	8949	13.06	1404.0	1800	81.6		
	28044	7790	17.89	1566.7		87.2		
	23046	6402	21.83	1640.5		83.5		
+6	33746	9374	13.72	1532.3	1800	82.3		
	29278	8133	18.91	1725.7		87.3		
	24281	6745	22.18	1763.4		83.1		

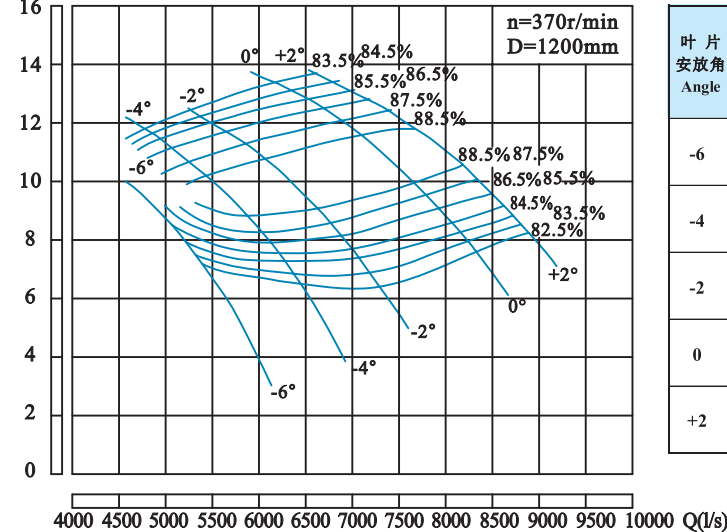
### 1400HLB-50



### 1400HLB-50

叶片安放角 Angle	流量 Q Capacity		扬程 H Head	转速 n Speed	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
	-4	22166	6157	6.21	370	451.8	710	82.9
	19068	5297	10.49	619.3		87.9		
	16982	4717	12.31	686.3		82.9		
-2	24728	6869	6.96	564.8		800	82.9	
	20855	5793	11.45	738.7			88.0	
	18353	5098	13.16	793.3			82.9	
0	26873	7465	7.81	689.4		1000	82.9	
	22822	6339	12.09	854.9			87.9	
	20081	5578	14.02	924.4			82.9	
+2	28601	7945	8.78	824.2		1120	82.9	
	24430	6786	12.84	971.6			87.9	
	21749	6041	14.66	1047.1			82.9	
+4	29972	8326	9.63	947.9	1250	82.9		
	26218	7283	13.38	1086.1		87.9		
	23239	6455	14.98	1143.3		82.9		

### 1400HLB-60

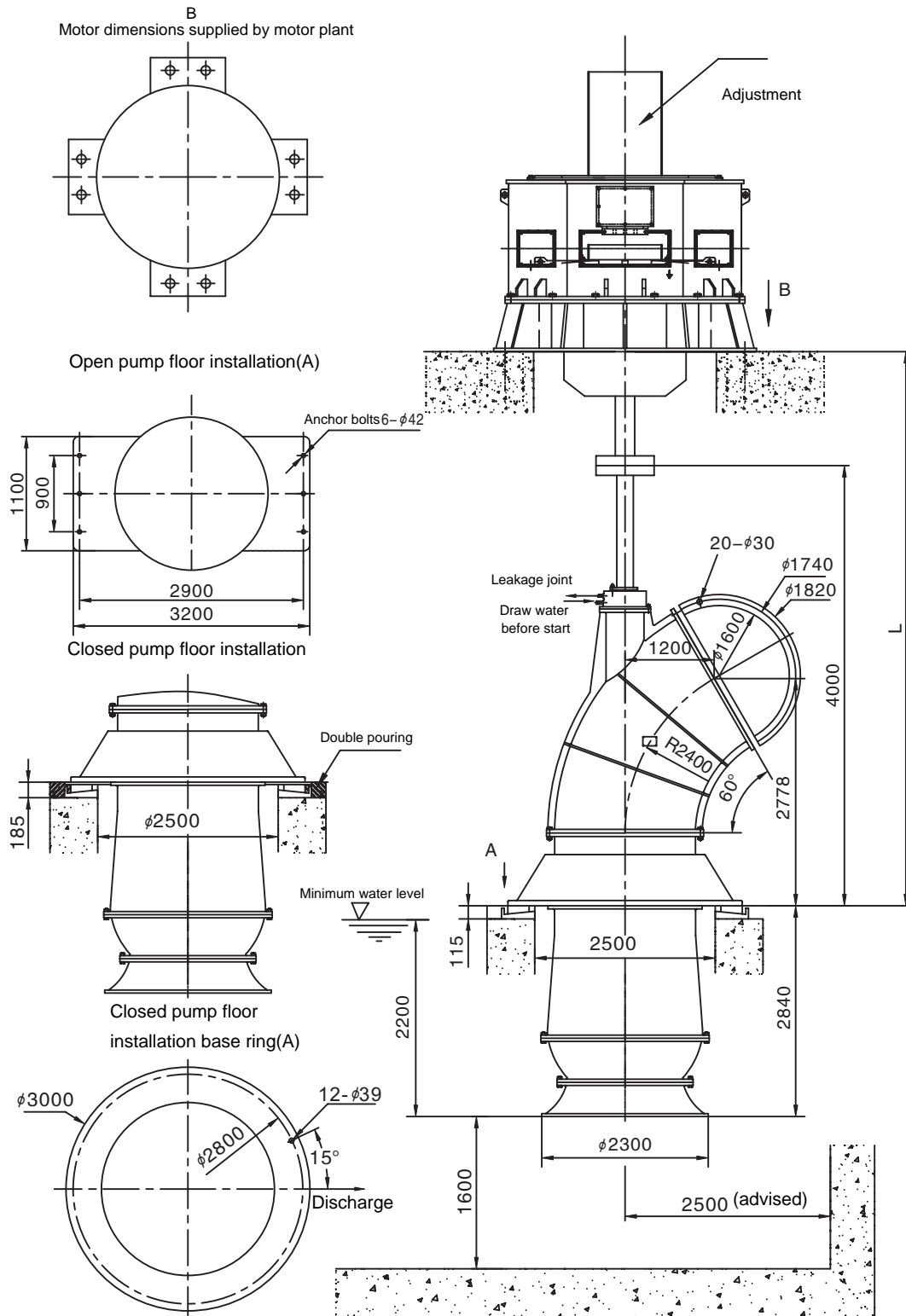


### 1400HLB-60

叶片安放角 Angle	流量 Q Capacity		扬程 H Head	转速 n Speed	功率 Power (kW)		效率 η Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
	-6	19148	5319	7.49	370	467.6	560	83.5
	18225	5063	8.51	492.8		85.7		
	16932	4703	10.02	534.0		86.5		
-4	22929	6369	6.86	512.4		710	83.5	
	20424	5673	9.45	587.7			89.4	
	17197	4777	11.80	661.8			83.5	
-2	25862	7184	6.89	580.6		800	83.5	
	22665	6296	10.03	693.2			89.3	
	18960	5267	12.45	769.6			83.5	
0	29666	8241	7.96	769.8		1000	83.5	
	25510	7086	11.56	902.3			89.0	
	22212	6170	13.39	969.4			83.5	
+2	31706	8807	8.53	882.0	1200	83.5		
	28120	7811	11.54	995.1		88.8		
	23787	6608	13.70	1062.4		83.5		

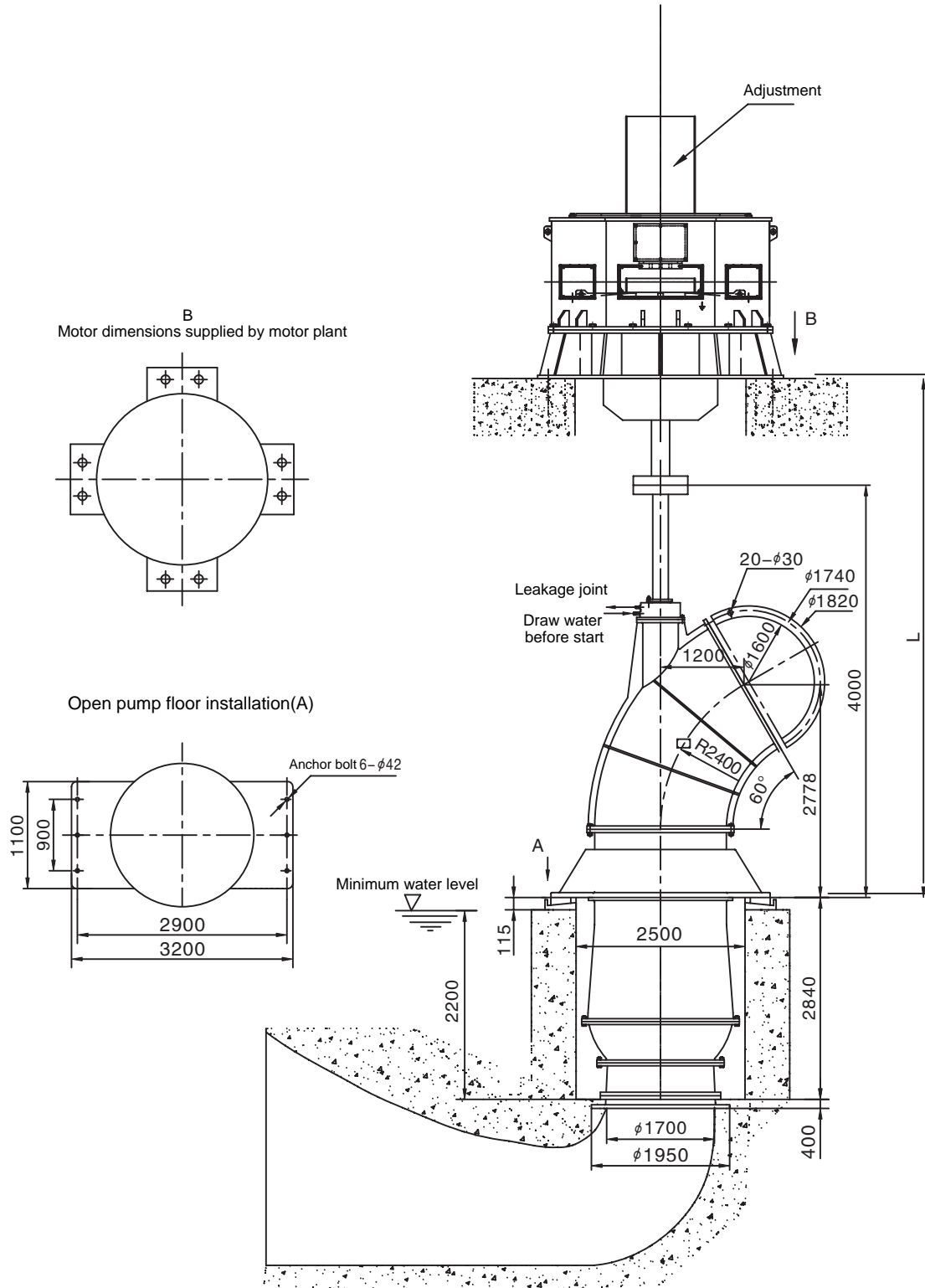
### 1600 HLB(Q) outside installation diagram 1

Model	Pump weight	Rotation part	Maximum axial force	Introduction
1600HLB(Q)-40	16000	5000	34000	1, Motor dimensions is for reference only 2, Biggest pump part weight 8000kg 3, Longest pump part length 6000mm.
1600HLB(Q)-50	16000	5000	26000	
1600HLB(Q)-60	16000	5000	23000	

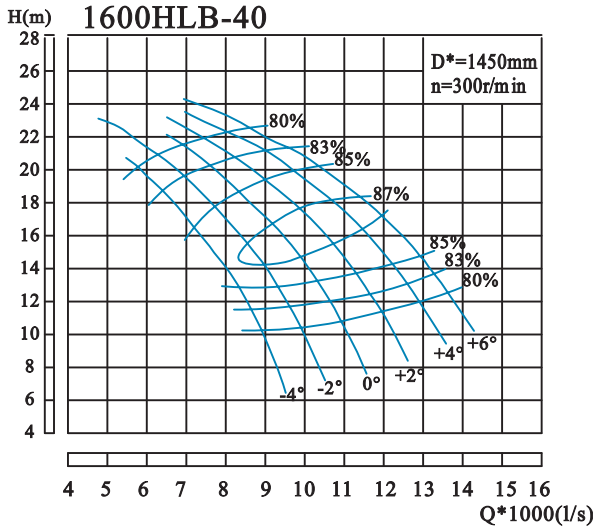


### 1600HLB(Q) outside installation diagram 2

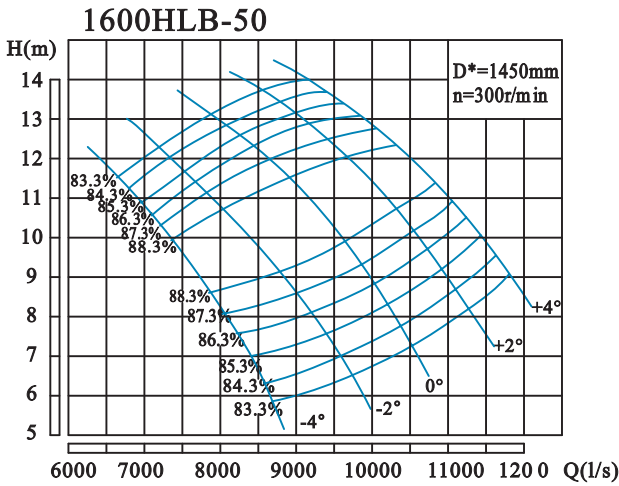
Model	Pump weight	Rotation part	Maximum axial force	Introduction
1600HLB(Q)-40	16000	5000	34000	1, Motor dimensions is for reference only 2, Biggest pump part weight 8000kg 3, Longest pump part length 6000mm.
1600HLB(Q)-50	16000	5000	26000	
1600HLB(Q)-60	16000	5000	23000	



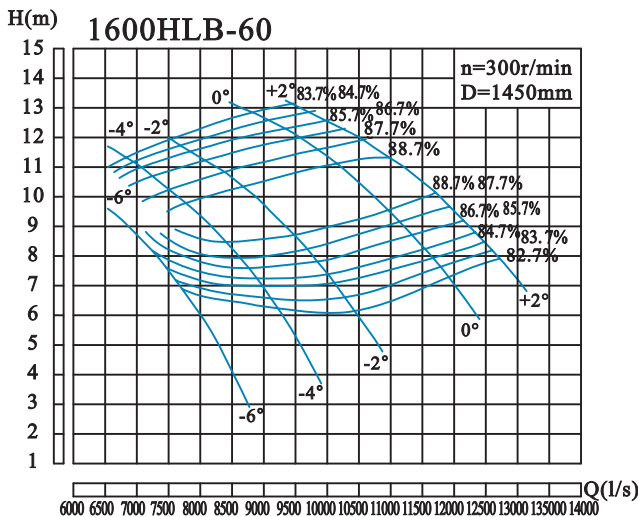
### 1600 HLB performance curve/data sheet



叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 $\eta$ Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	32042	8901	10.35	300	1125.2	1600	80.2	1450
	28594	7943	14.37		1293.6		86.5	
	22118	6144	19.39		1425.2		81.9	
-2	35574	9882	10.53		1269.1	1800	80.4	
	32210	8947	14.44		1452.3		87.2	
	26576	7382	18.63		1593.1		84.6	
0	39191	10886	10.91		1449.5	2000	80.3	
	33640	9344	16.45		1718.3		87.7	
	27164	7546	20.36		1823.4		82.6	
+2	42555	11821	11.90		1685.7	2300	81.8	
	37004	10279	16.72		1920.0		87.7	
	29603	8223	20.76		2008.1		83.3	
+4	46087	12802	12.54	1927.8	2500	81.6		
	40116	11143	17.17	2151.3		87.2		
	32967	9158	20.95	2252.5		83.5		
+6	48273	13409	13.17	2103.9	2800	82.3		
	41882	11634	18.15	2369.5		87.3		
	34733	9648	21.29	2421.2		83.1		



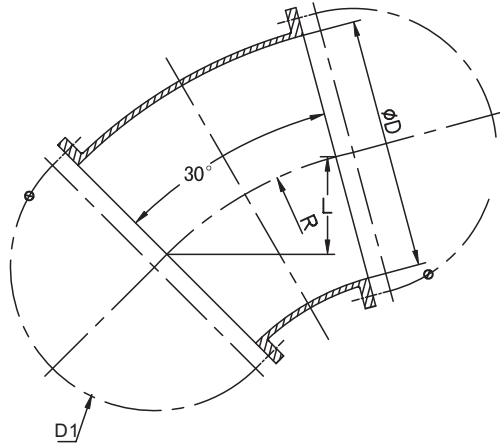
叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 $\eta$ Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-4	31285	8690	5.80	300	593.0	1000	83.3	1450
	26912	7476	9.80		813.1		88.3	
	23969	6658	11.50		900.8		83.3	
-2	34902	9695	6.50		741.4	1120	83.3	
	29435	8176	10.70		969.9		88.4	
	25903	7195	12.30		1041.2		83.3	
0	37929	10536	7.30		904.8	1250	83.3	
	32210	8947	11.30		1121.8		88.3	
	28342	7873	13.10		1213.3		83.3	
+2	40368	11213	8.20		1081.8	1400	83.3	
	34481	9578	12.00		1275.6		88.3	
	30697	8527	13.70		1374.3		83.3	
+4	42302	11751	9.00	1244.2	1600	83.3		
	37004	10279	12.50	1426.0		88.3		
	32799	9111	14.00	1500.6		83.3		



叶片安放角 Angle	流量 Q Capacity		扬程 H Head (m)	转速 n Speed (r/min)	功率 Power (kW)		效率 $\eta$ Efficiency (%)	叶轮直径 Impeller diameter (mm)
	(m <sup>3</sup> /h)	(l/s)			轴功率 Shaft Power	配用功率 Motor Power		
-6	27391	7609	7.19	300	642.1	800	83.5	1450
	26071	7242	8.17		676.6		85.7	
	24221	6728	9.62		733.3		86.5	
-4	32799	9111	6.58		703.6	1000	83.5	
	29216	8116	9.07		806.9		89.4	
	24599	6833	11.33		908.6		83.5	
-2	36996	10277	6.61		797.2	1250	83.5	
	32422	9006	9.63		951.8		89.3	
	27122	7534	11.95		1056.6		83.5	
0	42437	11788	7.64		1057.0	1400	83.5	
	36491	10136	11.10		1238.9		89.0	
	31773	8826	12.85		1331.1		83.5	
+2	45355	12599	8.19	1211.0	1600	83.5		
	40225	11174	11.08	1366.3		88.8		
	34027	9452	13.15	1458.8		83.5		

**11, 30°elbow and clap door**

1, 30° elbow joint dimensions



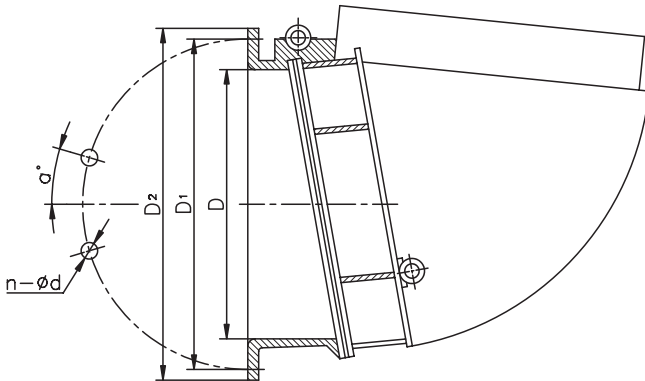
R=1. 0D

D	350	500	600	700	800	900	1000	1200	1400	1600	1800
R	350	500	600	700	800	900	1000	1200	1400	1600	1800
L	47	67	80	94	107	121	134	161	188	214	241

The flange dimensions is the same as the related pump flange dimensions

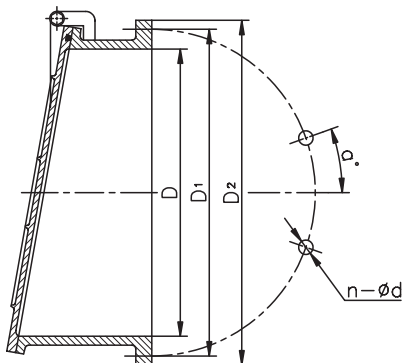
**2, Clap door outside and joint dimensions**

A, Floating pontoon clap door outside and joint dimensions sheet.



D	D <sub>1</sub>	D <sub>2</sub>	n-φd	a°	Weight (Kg)
300	395	440	12-φ23	15	82
400	495	540	8-φ23	22.5	90
500	600	645	12-φ23	15	101
600	705	755	12-φ27	15	148
700	810	860	12-φ27	15	180
800	920	980	12-φ27	15	240
900	1020	1075	12-φ27	15	315
1000	1120	1175	12-φ30	15	405
1200	1320	1380	12-φ30	15	448
1300	1430	1500	12-φ30	15	665
1400	1520	1575	12-φ30	15	891
1600	1760	1830	12-φ36	15	Contact
1800	1970	2045	44-φ30	4.1	with us

B, Counter weight clap door outside and joint dimensions sheet



D	D <sub>1</sub>	D <sub>2</sub>	n-φd	a°	Weight (Kg)
300	395	440	12-φ23	15	82
400	495	540	8-φ23	22.5	91
500	600	645	12-φ23	15	97
600	705	755	12-φ27	15	154
700	810	860	12-φ27	15	188
800	920	980	12-φ27	15	213
900	1020	1075	12-φ27	15	282
1000	1120	1175	12-φ30	15	330
1200	1320	1380	12-φ30	15	388
1300	1430	1500	12-φ30	15	649
1400	1520	1575	12-φ30	15	856
1600	1760	1830	12-φ36	15	Contact
1800	1970	2045	44-φ30	4.1	with us



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