KQ PUMPS

Submersible Axial, Mixed Flow Propeller Pump

Model ZQ,HQ

Application

For Handling Pure, Raw and Waste Water as well as Seawater in

- Water Works
- Irrigation and Drainage
- Pumping Stations
- Power Stations
- Industrial Water Supply
- Fire Fighting Systems
- Marine and Offshore Engineering
- General Applications in the Petrochemical Industry Seawater Desalination

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Cert.No.:CN11/20029 Cert.No.:CN13/21462

Company Profile

Shanghai Kaiquan Pump (Group) Co., Ltd. is a leading enterprise specializing in the design, production and sale of pumps, water-supply facilities and pump control equipment. Kaiquan boasts assets exceeding 2.5 billion yuan, with 7 enterprises and 5 industrial parks in Shanghai, Zhejiang, Hebei, Liaoning and Anhui, covering a total area of nearly 67 hectares, and a building area of 350,000 square meters for production.

For 12 consecutive years Kaiquan has achieved the highest volume of sales within China's domestic pump industry. The company's success has far outstripped that of its competitors, with Kaiquan's profits reaching 3 billion yuan in 2013 - twice that of the nearest competitor. The company's role as market leader of China's pump industry is reflected in the quality of its people. 80% of the group's 5,000 strong workforce are college graduates, and amongst them are more than 750 engineering technicians comprising some of China's best-known experts, professors and senior engineers.

Kaiquan's excellence in business and engineering has been recognised with the following accolades: Shanghai Quality Golden Prize, the fourth place in Top 100 Shanghai PVT Enterprise, Shanghai Top 100 Technical Enterprise, Grade AAA China Quality Credit, Grade AAA National Contract Credit, Excellent Enterprise in Quality, Creditability and Services, China's Most Competitive Commodity Trademark, and Advanced Unit of National Enterprise Cultural Construction. In 2013, Kaiquan was selected as one of China's top 500 organisations in the mechanical industry for the third consecutive year, coming first place in the pump industry nationwide.

Dedication to excellent customer service is one of Kaiquan's core values. The group's 300 service-dedicated engineers provide comprehensive expert solutions for customers, and with the use of the latest technology, are able to respond highly efficiently to client requests. In addition, Kaiquan's extensive national service network, composed of 32 sales branch companies and 361 agencies – allows the company to execute its "Blue Fleet Services" programme - allowing experienced technicians to respond to customer requests at any time of day, within a turnaround time of just 4 hours. This attention to the needs and aspirations of customers has ensured Kaiquan's role as China's leading producer of competitive and reliable products within the pump industry.

Kaiquan's vision for the future is to expand the group's activities with the localized production of high-end pump products for application within a diverse range of fields and projects, such as those related to nuclear power, large-scale fire power, petrochemical engineering, military projects and sea water desalination. Shanghai Kaiquan seeks to become a world famous brand, and intends to become a multinational corporation and a top 10 contender in the global pump market.

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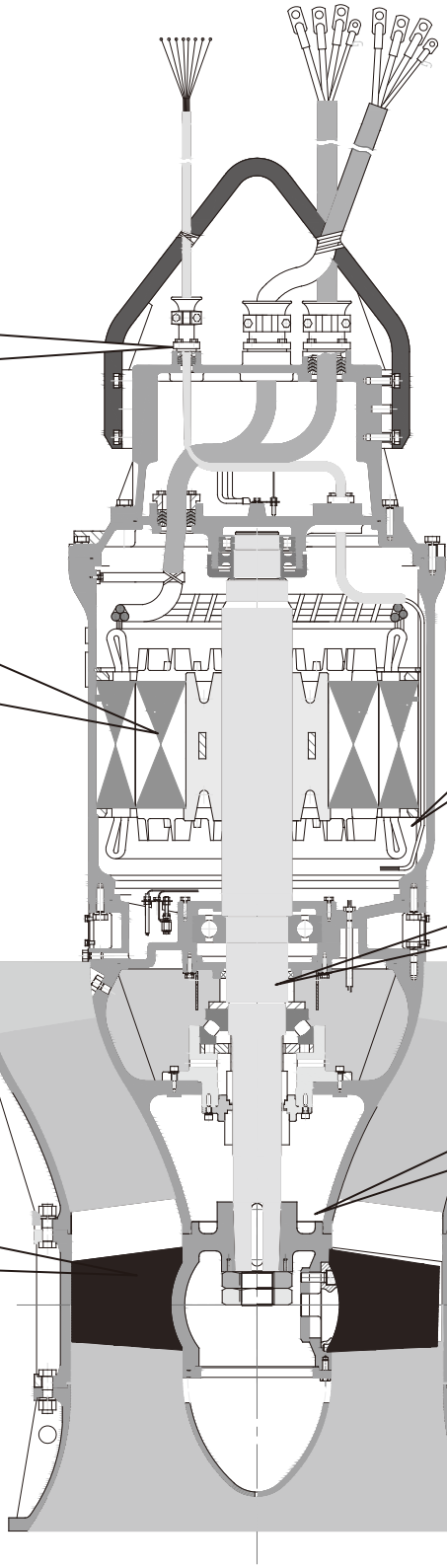
1. Product Overview

ZQ/HQ Series Submersible Axial/Mixed Flow Pump with partially adjustable blades (Named as“submersible pumps” in this sample specification) used new technology compared with traditional pumps. They retain many features of traditional models, such as large quantity of single unit, wide head range, and high efficiency.In addition, the motors used to drive the pumps are dry-type fully-enclosed submersible three-phase asynchronous motors, which ensure the pumps to work in a submerged manner for a long time, and this feature is not possessed by traditional models.

1. High adaptability
   (1) Can transport clean water and lightly polluted water, with media temperature up to 40℃ and PH value of 4-10; The maximum diameter of passable particles is 100mm.
   (2) Applications: urban water supply, diversion projects, urban sewage and drainage systems, sewage treatment works, power station drainage systems, water supply and drainage for docks, water network hub diversion, irrigation and drainage, aquaculture and so on.I t's suitable for occasions requiring low head and large flowwh, i ch is generally below 10m. Submersible mixed flow pumpwsi,t h high efficiency nad good anti-cavitation performance, are suitable for occasions with large water level variations and high head, which is generally below 20m.
2. Less investment in pump station, and easy operation and management
   (1) The pump works underwater, it requires much less earthwork and structural engineering in building pump stations as well as less installation area. As a result, the construction cost could be reduced by 30-40%.
   (2) Integration of motor and pump saves the time and labor-consuming on-site assembly procedure of 'motor – transmission mechanism – pump axiscentering', thus bringing easy and fast on-site installation.
   (3) Easy management, and low cost of management and operating .
   (4) It’s easy to operate with remote and automatic control.
   (5) Low noise, without high-temperature area in pump stations; ensure operating environment well; fully underground pump stations could be built according to requirements, so as to retain environmental style and feature on the ground.
   (6) It's the best choice to solve flood prevention problems for motors installed in pump stations that are located along rivers and lakes with great water level fluctuations. In addition, by saving the long axis and intermediate bearings between motor and pump, the unit could run more stably and reliably.
3. High reliability, no vibration, and low noise ZQ,HQ series submersible axial flow pump,mixed flow pump SHANGHAIKAIQUAN 2 All the rights to alter tachnology documents reserved!
   (1) With excellent hydraulic model, ensure users’ performance requirements. Interchangeability with traditional models for users to choose. There are a series of these pumps, which have awide high-efficiency range,applicability to different working conditions, high energy efficiency, and low operating costs.
   (2) The double or triple mechanical seals prevent leakage. Adequately lubricated special thrust bearings with reasonable structure design and long service life are adopted.
   (3) With Grade F insulation, and come with temperature protection, monitoring, leakage sensor and other warning units.
   (4) With good cooling conditions as submersible in water, Operating stable with minimal vibration, and low noise.

2. Structure Instruction



Watertight Cable entry system prevents capillary action and protects against moisture maintenance costs

Junction area includes a terinal borad for cable connections allowing for fast efficient replacement;area sealed from the stator housing ;prevent leakage into the motor;reduces the possibillity of failure

Heavy duty, high efficiency, air filled motor Class F insulated, rated for 311°F with a 1.10 service factor dissipates heat easily; operates cooler with higher efficiencies;

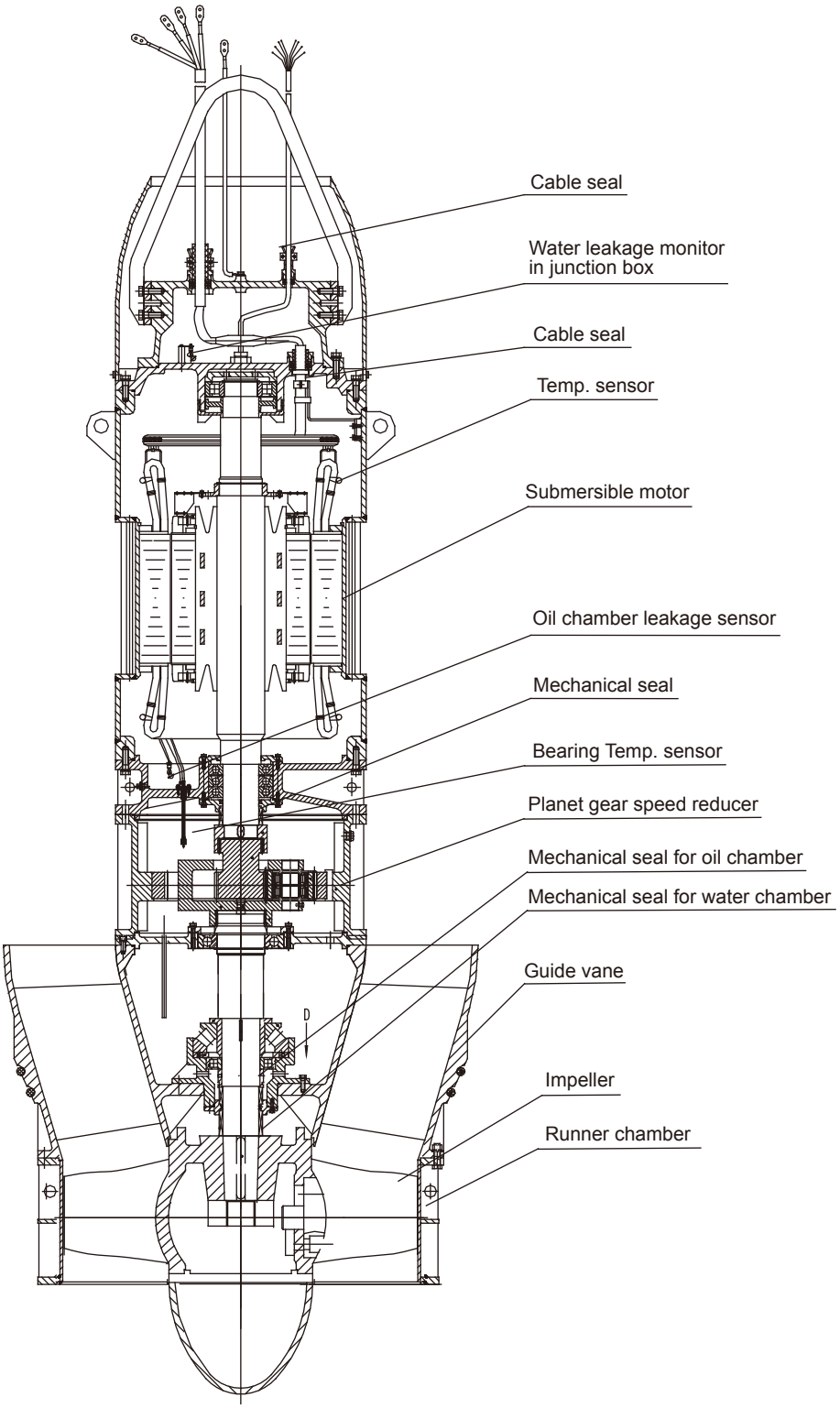
Thermal and Monitor Sensorfor, big high voltage motor sensor is one working and one stand-by. With special designed center protection monitor to retain pump reliability

The submersible axial/mixed flow pump is provided with three mechanical seals to improve it reliability

Anti-twining design is adopted in mechanical seal water chamber, and external pressure sstabilizer and air breather are used to prolong the service life of the seal

With precisely cast blades and the most advanced hydraulic model, the pump has high efficience.

Structure diagram of 1600-2400(caliber) large submersible pump with planetary reducer



1. Impeller
   The impeller exploited by hydraulic model conversion with highly advanced. Stable and mature with good performance. Smaller suction diameter and good anticavitation performance ensure its smooth operation.
2. Shaft seal
   Two or three sets of independent mechanical sealing devices ensure the motor not affected by the pump. For more reliability , installation use a tandem.
3. Oil chamber
   Oil lubrication can used as cooling the seal, and also prevent the medium to the motor. The inner room can relieve sharp rise of the internal pressure in the oil chamber.
4. Advanced cable seal
   The special proprietary technology forthe cable seal can prevent water or air from radially permeating into the inside of the cablethrough the cable shield. Water leakage between cable cores and capillary leakage can be avoided as well. It is convenient to dismantle or replace the cable.
5. Bearing
   Used rolling bearings, which can bear all the axial and radial loads and be isolated from pumped medium.
6. Pump/ motor shaft
   The pump shares the shaft with the motor. The structure is compact and the shaft extension is shortened as far as possible. The rigidity is strengthened in design, and the influence of deflection on the product's safety andreliability is reduced. The product produces slight vibration while runningand has long seal and bearing life.
7. Motor
   The high-performance squirrel cage induction motor, used in submersible pumps, is specially designed and made by Shanghai Kaiquan according to GB755 standard. Insulation grade: F; rated frequency: 50HZ; protection class: IP68. Three VPI processes are used to ensure reliable insulation. Various voltage classes including380V, 660V, 6kV, and 10kV are available for different power requirements. We can also design and manufacture products with special voltage classes according to customers' requirements.
8. Monitoring devices
   The submersible pump is equipped with multiple sensors, such as a leakage sensor, an over-temperature sensor, and a water intrusion sensor. These sensors are checked and controlled by a special protector installed in the electrical cabinet. Thus, the submersible pump is under effective protection in real time.

3. Technical Specification

1、Basic model explanation

a、500 ZQ - 125 C D

- D: The speed is a grade lower than the standard speed, namely operating at lowered speed; the standard speedis not marked.
- C: The impeller diameter is bigger than the standard diameter; the standard diameter is not marked.
- 125: 1/10 of the specific speed (1250)
- ZQ: The pump is a submersible axial flow pump; all the pumps in this specification are provided with partially adjustable blades.
- 500: Nominal diameter of the pump outlet (mm)

b、700 HQ - 50 C D

- D: The speed is a grade lower than the standard speed, namely operating at lowered speed;the standard speed is not marked.
- C: The impeller diameter is bigger than the standard diameter; the standard diameter is not marked.
- 50: 1/10 of the specific speed (500)
- HQ: The pump is a submersible mixed flow pump; all the pumps in this specification are provided with partially adjustable blades.
- 700: Nominal diameter of the pump outlet (mm)

c、1800 ZQX - 125 C D

- D: The speed is a grade lower than the standard speed, namely operating at lowered speed; the standard speed is not marked.
- C: The impeller diameter is bigger than the standard diameter; the standard diameter is not marked. 1/10 of the specific speed (1250)
- ZQX: The pump is a submersible axial flow pump with a planet gear speedreducer; all the pumps in this specification are provided with partially adjustable blades.
- 1800: Nominal diameter of the pump outlet (mm)

d、The sample model is in accordance with industrial standard; the front part is the basic model of the submersible pump, and the rear shows some further details.

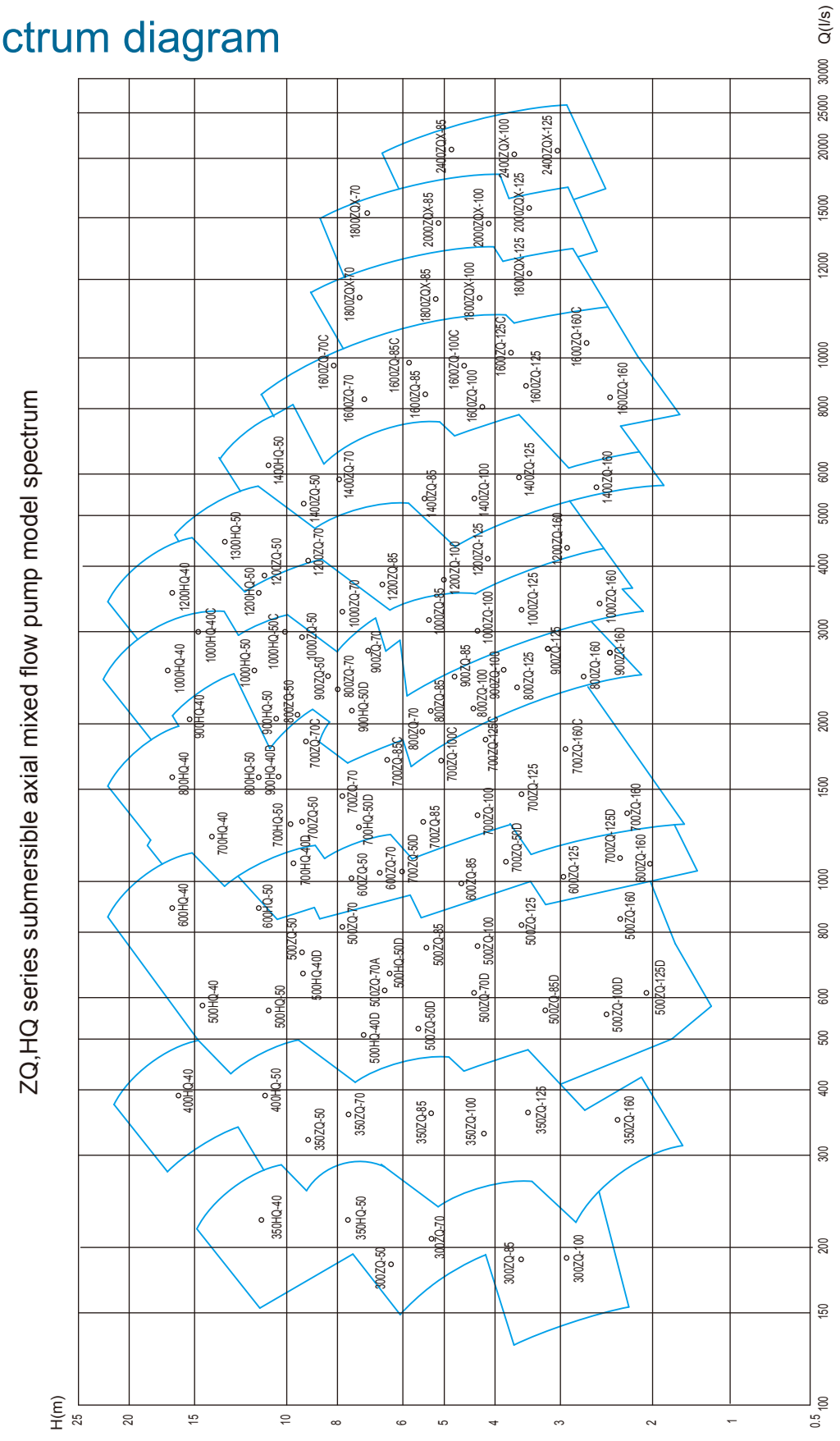
For example: 500ZQ-125-（0）-55

- -55: power of the pump motor
- （0）: installation angle of the blades
- 500ZQ-125: pump model

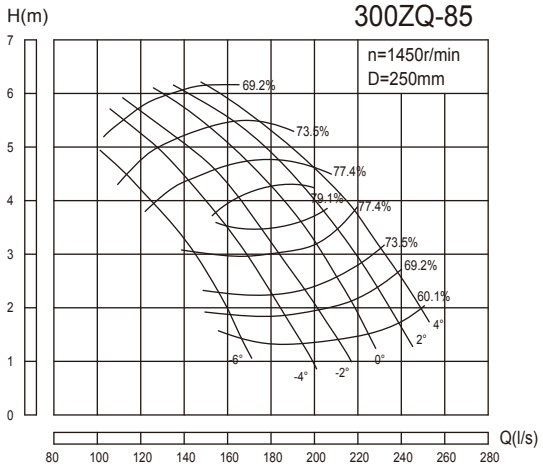
In addition, the customer should specify the additional information (impeller material, voltage class, and installation type) in written form when ordering.

e、The performance curves in this specification areonly abouteven angles, and the practical angles (including even angles and odd angles) are subject to the parameters provided by the company's technical department.

4. Spectrum diagram

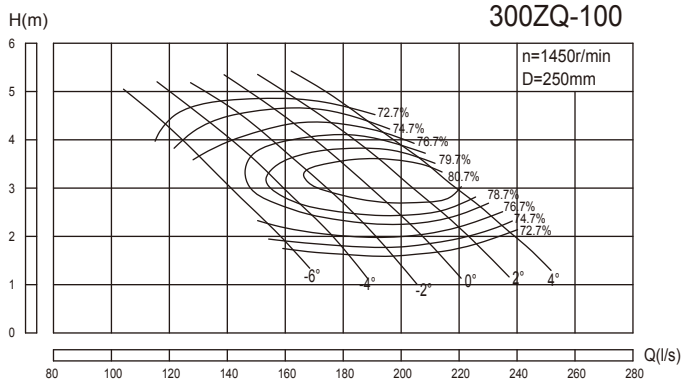


5. Performance curve and steel wellhole installation dimensions



300ZQ-85 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	564.5	156.8	1.94	1450	4.3	7.5	69.3	250
	516.6	143.5	2.94		5.3		78.3	
	364.7	101.3	4.97		7.1		69.3	
-4°	654.1	181.7	1.88		4.8	11	69.3	
	558.4	155.1	3.61		6.9		79.3	
	400	111.1	5.27		8.3		69.3	
-2°	735.5	204.3	1.94		5.6		69.3	
	635.4	176.5	3.54		7.7		79.3	
	439.6	122.1	5.52		9.5		69.3	
0°	791.6	219.9	2.12		6.6	15	69.3	
	695.9	193.3	3.67		8.7		80.3	
	483.5	134.3	5.73		10.9		69.3	
+2°	846	235	2.43		8.1		69.3	
	743.8	206.6	3.92		10		79.3	
	527	146.4	5.9		12.2		69.3	
+4°	900	250	2.73		9.7		69.3	
	760.3	211.2	4.44		11.7		78.3	
	574.9	159.7	5.89		13.3		69.3	



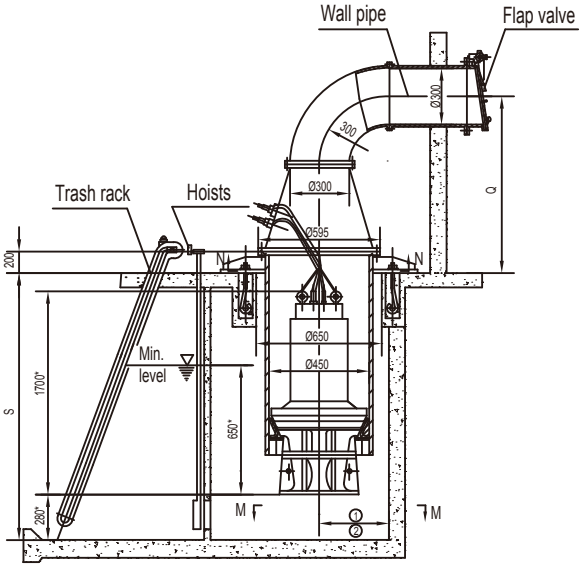
300ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P(kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	554	153.9	2.22	1450	4.4	7.5	76.7	250
	520.9	144.7	2.8		5.1		78.3	
	468.7	130.2	3.68		6.1		76.7	
-4°	633.2	175.9	2.03		4.6	11	76.7	
	583.2	162	2.85		5.7		79.8	
	509.4	141.5	3.99		7.2		76.7	
-2°	689.8	191.6	1.98		4.9		76.7	
	635.4	176.5	2.92		6.3		80.4	
	545.8	151.6	4.19		8.1		76.7	
0°	743.8	206.6	2.04		5.4		76.7	
	687.6	191	2.92		6.8		80.7	
	586.4	162.9	4.34		9		76.7	
+2°	791.6	219.9	2.2		6.2		76.7	
	729	202.5	3.08		7.5		81.2	
	633.2	175.9	4.35		9.8		76.7	
+4°	833.4	231.5	2.42		7.2	15	76.7	
	781.2	217	3.09		8.1		80.9	
	698	193.9	4.17		10.3		76.7	

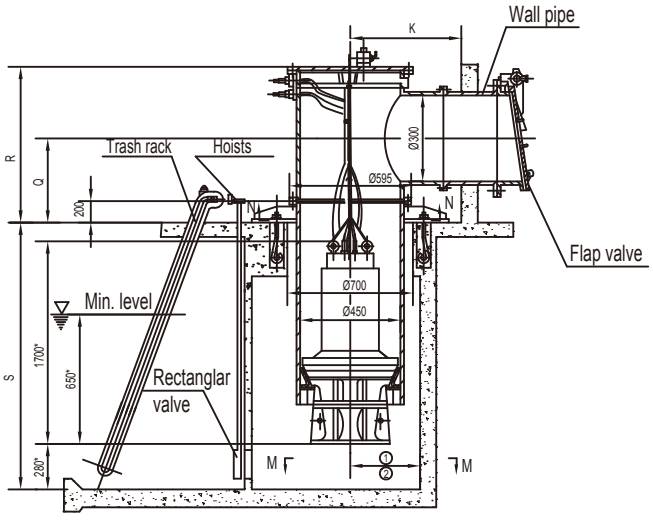
300ZQ-85,300ZQ-100

Outside installation dimensions drawing

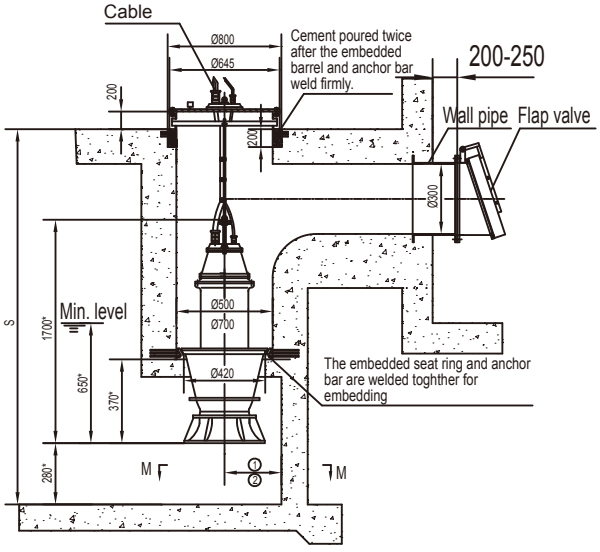
1. Suspension installation with bent pipe

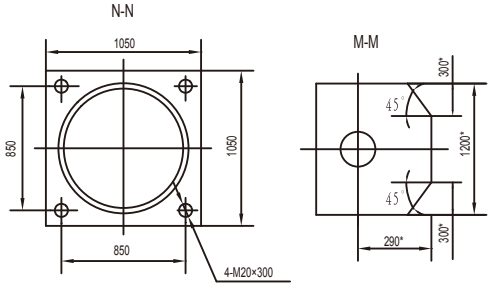


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





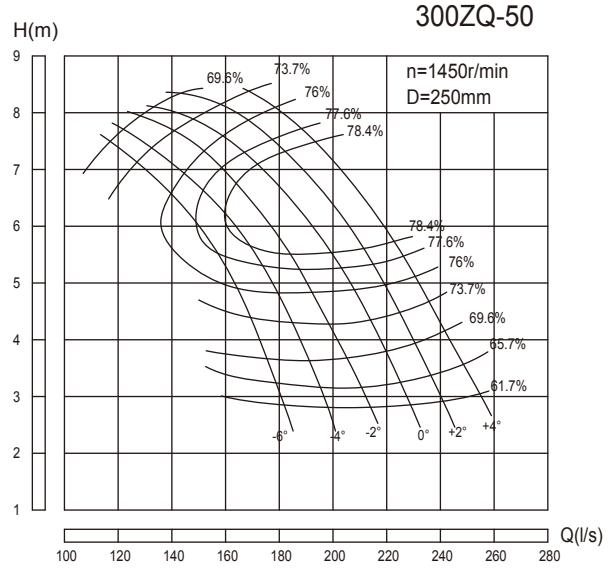
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

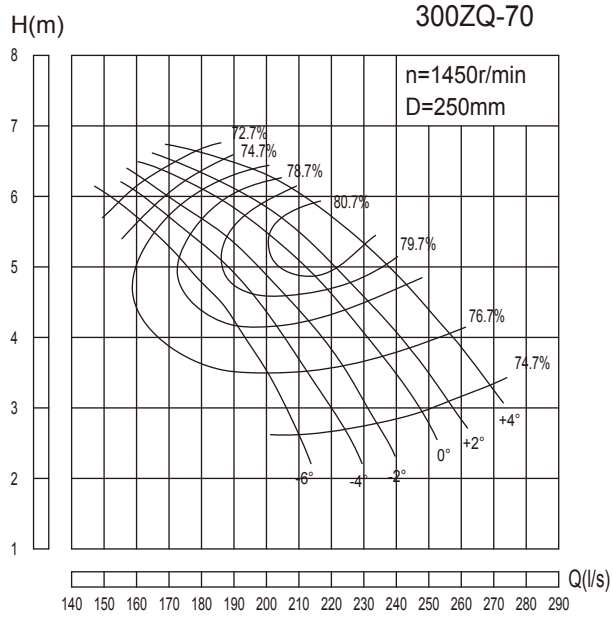
300ZQ-50



300ZQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	636.8	176.9	3.24	1450	8.6	15	65.7	250
	537.5	149.3	5.92		11.1		77.9	
	425.5	118.2	7.46		12.3		70.6	
-4°	691.6	192.1	3.18		9.1		65.7	
	584.3	162.3	6.11		12.3		79.1	
	439.2	122	7.81		13.2		70.6	
-2°	746.6	207.4	3.18		9.8	18.5	65.7	
	601.9	167.2	6.29		13		79.1	
	460.8	128	8.03		14.3		70.6	
0°	806.4	224	3.33		11.1		65.7	
	668.5	185.7	6.32		14.5		79.3	
	533.9	148.3	7.92		15.6		73.7	
+2°	855	237.5	3.41		12.1		65.7	
	703.8	195.5	6.48		15.7		79.1	
	574.6	159.6	8.18		17.4		73.7	
+4°	887.8	246.6	3.7		13.6	22	65.7	
	740.2	205.6	6.66		17		79.1	
	601.6	167.1	8.33		18.5		73.7	

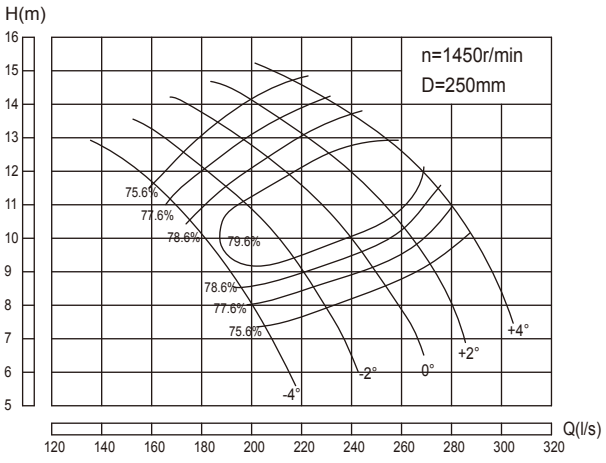
300ZQ-70



300ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	749.9	208.3	2.6	1450	6.9	15	76.9	250
	666.7	185.2	4.58		10.3		80.9	
	552.2	153.4	5.9		11.9		74.9	
-4°	802.1	222.8	2.67		7.6		76.9	
	683.3	189.8	4.86		11		82.1	
	572.8	159.1	6.17		12.9		74.9	
-2°	843.8	234.4	2.78		8.3	18.5	76.9	
	718.9	199.7	5.07		12.1		82.3	
	585.4	162.6	6.25		13.3		74.9	
0°	885.2	245.9	2.99		9.4		76.9	
	748.1	207.8	5.29		12.9		83.4	
	600.1	166.7	6.46		14.1		74.9	
+2°	916.6	254.6	3.13		10.2		76.9	
	766.8	213	5.35		13.3		83.8	
	606.2	168.4	6.53		14.4		74.9	
+4°	962.6	267.4	3.4		11.6		76.9	
	796	221.1	5.69		14.9		82.9	
	643.7	178.8	6.67		15.6		74.9	

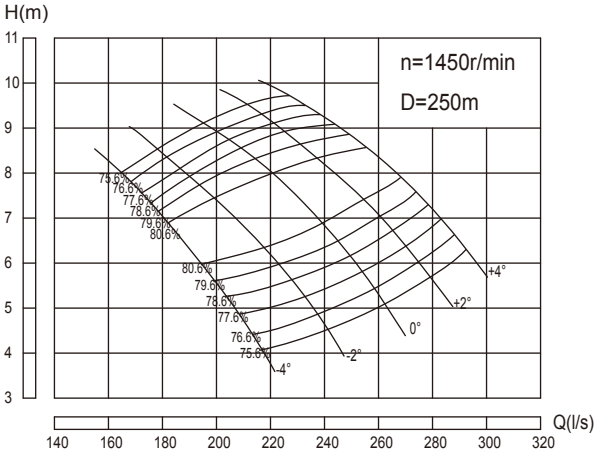
350HQ-40



350HQ-40 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-4°	739.4	205.4	7.38	1450	19.7	30	75.6	250
	677.2	188.1	9.48		22		79.4	
	581.4	161.5	11.74		24.6		75.6	
-2°	829.1	230.3	7.96		23.8	30	75.6	
	749.9	208.3	10.28		26.4		79.6	
	625	173.6	12.66		28.5		75.6	
0°	910.4	252.9	8.59		28.2	37	75.6	
	812.5	225.7	11.18		31		79.9	
	672.8	186.9	13.59		33		75.6	
+2°	977	271.4	9.29		32.7	45	75.6	
	875.2	243.1	11.81		34.9		80.6	
	718.9	199.7	14.27		37		75.6	
+4°	1035.4	287.6	10.24		38.2	45	75.6	
	937.4	260.4	12.64		40.3		80.1	
	781.2	217	14.85		41.8		75.6	

350HQ-50



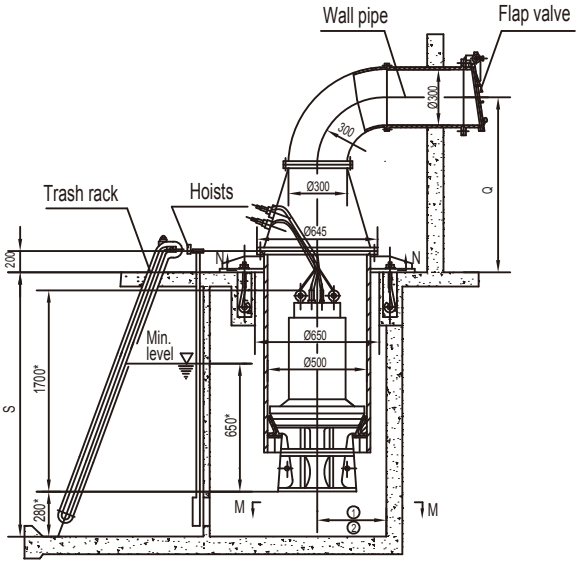
350HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-4°	768.6	213.5	4.41	1450	12.1	18.5	76.6	250
	666.7	185.2	6.74		15.2		80.6	
	601.9	167.2	7.81		16.7		76.6	
-2°	854.3	237.3	4.86		14.8	22	76.6	
	729	202.5	7.29		17.9		80.7	
	654.1	181.7	8.33		19.4		76.6	
0°	931.3	258.7	5.42		18	30	76.6	
	812.5	225.7	7.64		21		80.6	
	720.7	200.2	8.92		22.9		76.6	
+2°	989.6	274.9	6.04		21.3	30	76.6	
	854.3	237.3	8.33		24.1		80.6	
	783.4	217.6	9.31		25.9		76.6	
+4°	1037.5	288.2	6.6		24.4	30	76.6	
	916.6	254.6	8.61		26.7		80.6	
	837.4	232.6	9.51		28.3		76.6	

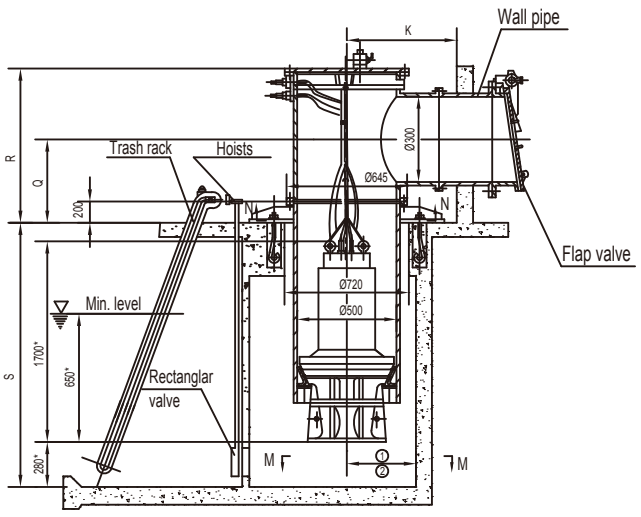
300ZQ-50,300ZQ-70,350HQ-40,350HQ-50

Outside installation dimensions drawing

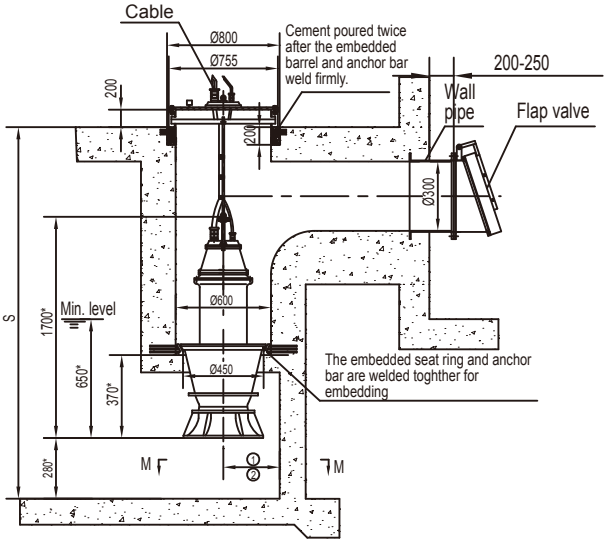
1. Suspension installation with bent pipe

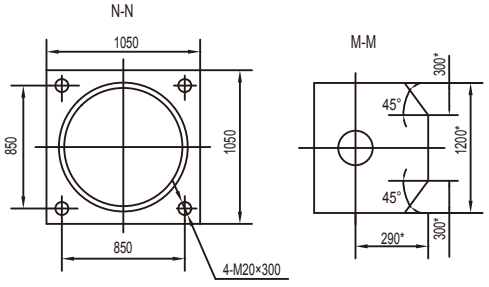


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





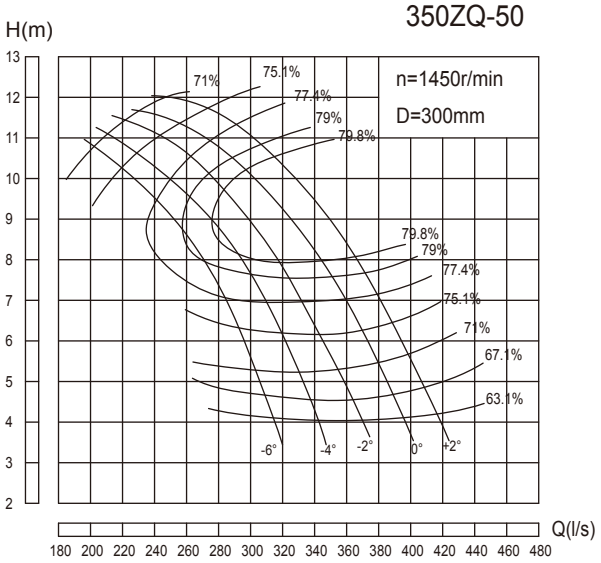
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

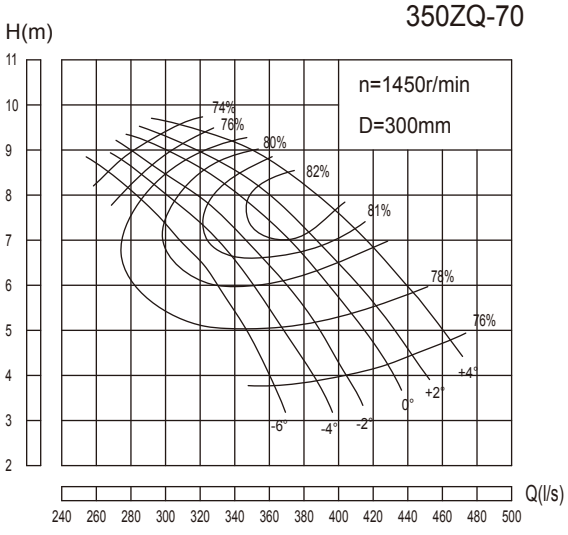
350ZQ-50



350ZQ-50 Performance parameter list

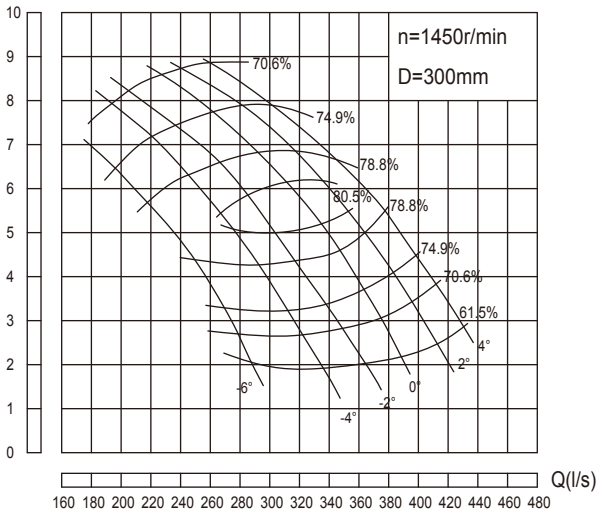
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	1100.5	305.7	4.67	1450	20.9	37	67.1	300
	928.8	258	8.53		27.2		79.3	
	735.5	204.3	10.74		29.9		72	
-4°	1195.2	332	4.58		22.2	37	67.1	
	1009.8	280.5	8.79		30		80.5	
	758.9	210.8	11.25		32.3		72	
-2°	1290.2	358.4	4.58		24	37	67.1	
	1040.4	289	9.05		31.9		80.5	
	796.3	221.2	11.56		34.8		72	
0°	1393.2	387	4.8		27.2	45	67.1	
	1155.6	321	9.1		35.5		80.7	
	922.7	256.3	11.4		38.2		75.1	
+2°	1477.8	410.5	4.91		29.5	45	67.1	
	1216.4	337.9	9.33		38.4		80.5	
	992.9	275.8	11.78		42.4		75.1	

350ZQ-70



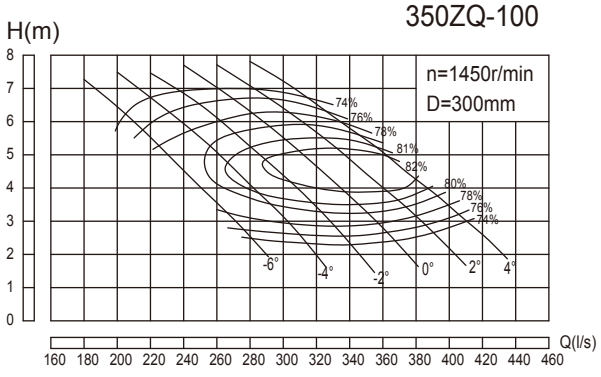
350ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	1296	360	3.75	1450	17.4	37	76	300
	1152	320	6.6		25.9		80	
	954	265	8.5		29.9		74	
-4°	1386	385	3.85		19.1	37	76	
	1180.8	328	7		27.7		81.2	
	990	275	8.88		32.4		74	
-2°	1458	405	4		20.9	37	76	
	1242	345	7.3		30.4		81.4	
	1011.6	281	9		33.5		74	
0°	1530	425	4.3		23.6	37	76	
	1292.4	359	7.62		32.5		82.5	
	1036.8	288	9.3		35.5		74	
+2°	1584	440	4.5		25.6	37	76	
	1324.8	368	7.7		33.5		82.9	
	1047.6	291	9.4		36.3		74	
+4°	1663.2	462	4.9		29.2	45	76	
	1375.2	382	8.2		37.5		82	
	1112.4	309	9.6		39.3		74	



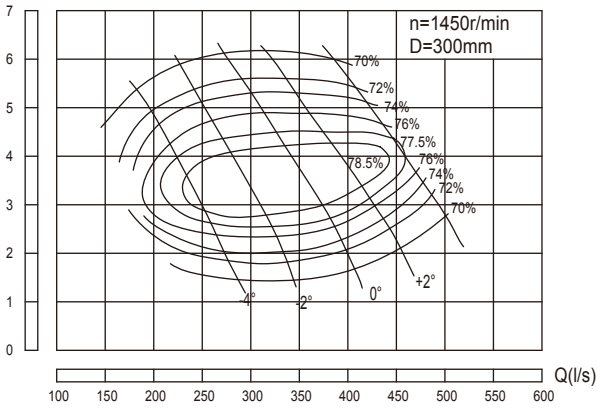
350ZQ-85 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	975.6	271	2.79	1450	10.5	18.5	70.7	300
	892.8	248	4.24		12.9		79.7	
	630	175	7.15		17.4		70.7	
-4°	1130.4	314	2.7		11.8	22	70.7	
	964.8	268	5.2		16.9		80.7	
	691.2	192	7.59		20.2		70.7	
-2°	1270.8	353	2.79		13.7	30	70.7	
	1098	305	5.1		18.9		80.7	
	759.6	211	7.95		23.3		70.7	
0°	1368	380	3.05		16.1	30	70.7	
	1202.4	334	5.29		21.2		81.7	
	835.2	232	8.25		26.6		70.7	
+2°	1461.6	406	3.5		19.7	37	70.7	
	1285.2	357	5.65		24.5		80.7	
	910.8	253	8.49		29.8		70.7	
+4°	1555.2	432	3.93		23.6	37	70.7	
	1314	365	6.39		28.7		79.7	
	993.6	276	8.48		32.5		70.7	



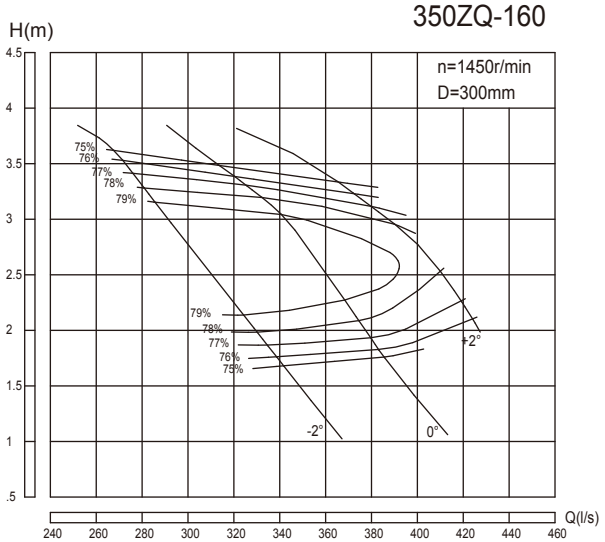
350ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	957.6	266	3.2	1450	10.7	18.5	78	300
	900	250	4.03		12.4		79.6	
	810	225	5.3		15		78	
-4°	1094.4	304	2.93		11.2	22	78	
	1008	280	4.1		13.9		81.1	
	880.2	244.5	5.75		17.7		78	
-2°	1191.6	331	2.85		11.9		78	
	1098	305	4.21		15.4		81.7	
	943.2	262	6.03		19.9		78	
0°	1285.2	357	2.94		13.2	30	78	
	1188	330	4.2		16.6		82	
	1013.4	281.5	6.25		22.1		78	
+2°	1368	380	3.17		15.2		78	
	1260	350	4.43		18.4		82.5	
	1094.4	304	6.27		24		78	
+4°	1440	400	3.48		17.5		78	
	1350	375	4.45		19.9		82.2	
	1206	335	6		25.3		78	



350ZQ-125 Performance parameter list

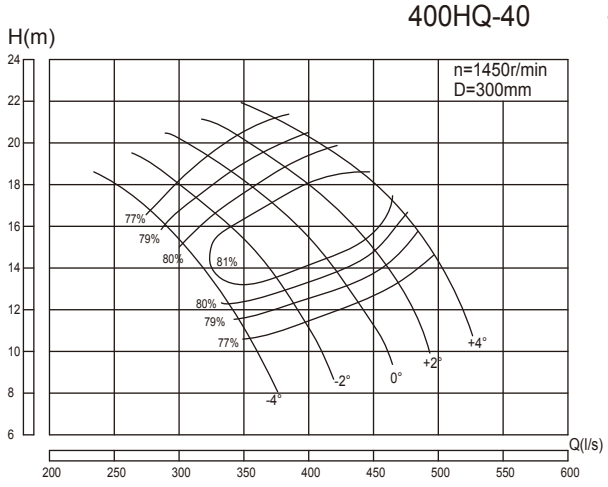
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	979.2	272	2.04	1450	7.4	15	74	300
	892.8	248	3.03		9.4		78.5	
	712.8	198	4.93		13.3		72	
-2°	1198.8	333	2.03		9	22	74	
	1105.2	307	3.14		12		78.9	
	871.2	242	5.34		17.6		72	
0°	1414.8	393	2.28		11.9	30	74	
	1303.2	362	3.46		15.5		79.5	
	1047.6	291	5.6		22.2		72	
+2°	1573.2	437	2.7		15.6		74	
	1447.2	402	3.58		17.9		78.9	
	1213.2	337	5.6		25.7		72	
+4°	1717.2	477	3.46		21.9	37	74	
	1645.2	457	3.96		22.8		77.8	
	1468.8	408	5.41		30.1		72	



350ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	1219	338.6	1.76	1450	7.7	15	76	300
	1116	310	2.49		9.4		80.5	
	977.4	271.5	3.53		12.4		76	
0°	1377.7	382.7	1.82		9	15	76	
	1296	360	2.5		11.1		79.5	
	1154.5	320.7	3.38		14		76	
+2°	1526.8	424.1	2.1		11.5	18.5	76	
	1447.2	402	2.7		13.7		78	
	1340.6	372.4	3.23		15.5		76	

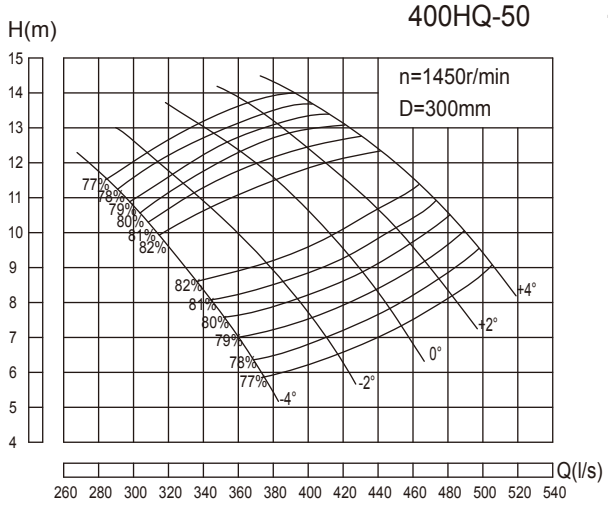
400HQ-40



400HQ-40 Performance parameter list

Blade angle	Capacity Q (m^3/h)	Capacity Q (l/s)	Head H (m)	Speed n (r/min)	Power P (kW) Shaft Power	Power P (kW) Motor Power	Efficiency η (%)	Impeller diameter (mm)
	1278	355	10.63		48.1		77	
-4°	1170	325	13.65		53.9	75	80.8	
	1004.4	279	16.9		60.1		77	
	1432.8	398	11.46		58.1		77	
-2°	1296	360	14.8		64.5	75	81	
	1080	300	18.23		69.7		77	
	1573.2	437	12.37		68.9		77	
0°	1404	390	16.1	1450	75.8	90	81.3	300
	1162.8	323	19.57		80.5		77	
	1688.4	469	13.38		79.9		77	
+2°	1512	420	17		85.4	110	82	
	1242	345	20.55		90.3		77	
	1789.2	497	14.75		93.4		77	
+4°	1620	450	18.2		98.6	110	81.5	
	1350	375	21.38		102.1		77	

400HQ-50



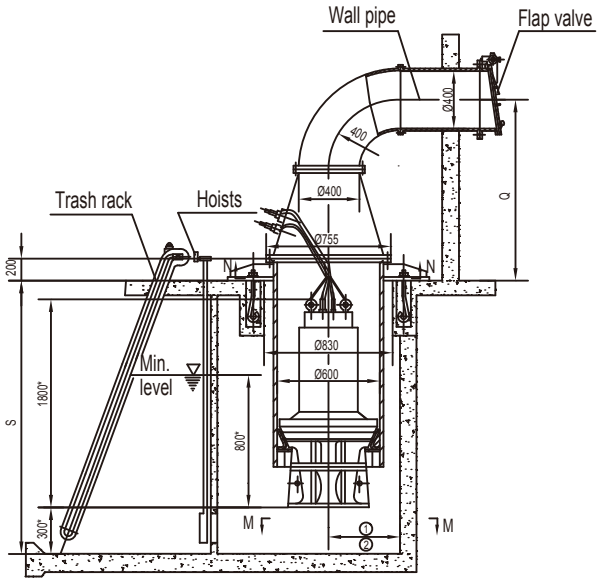
400HQ-50 Performance parameter list

Blade angle	Capacity Q (m^3/h)	Capacity Q (l/s)	Head H (m)	Speed n (r/min)	Power P (kW) Shaft Power	Power P (kW) Motor Power	Efficiency η (%)	Impeller diameter (mm)
	1328.4	369	6.35		29.5		78	
-4°	1152	320	9.7		37.1	45	82	
	1040.4	289	11.25		40.9		78	
	1476	410	7		36.1		78	
-2°	1260	350	10.5		43.9	55	82.1	
	1130.4	314	12		47.4		78	
	1609.2	447	7.8		43.9		78	
0°	1404	390	11	1450	51.3	75	82	300
	1245.6	346	12.85		55.9		78	
	1710	475	8.7		52		78	
+2°	1476	410	12		58.9	75	82	
	1353.6	376	13.4		63.4		78	
	1792.8	498	9.5		59.5		78	
+4°	1584	440	12.4		65.3	75	82	
	1447.2	402	13.7		69.3		78	

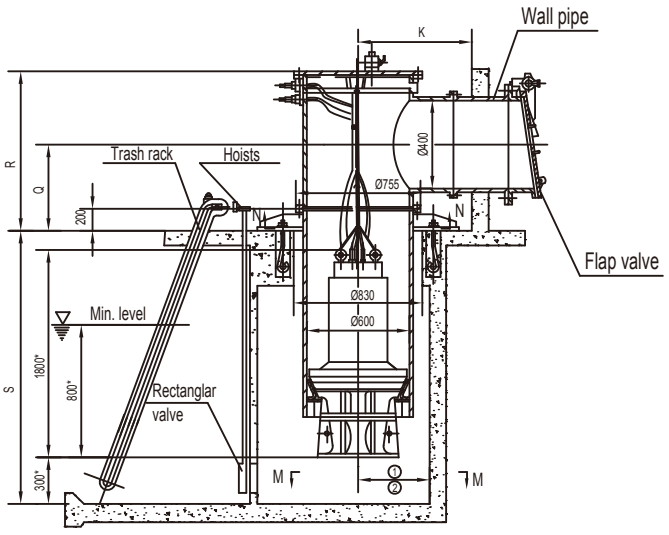
350ZQ-50,350ZQ-70,350ZQ-85,350ZQ-100,350ZQ-125,350ZQ-160,
400HQ-40,400HQ-50

Outside installation dimensions drawing

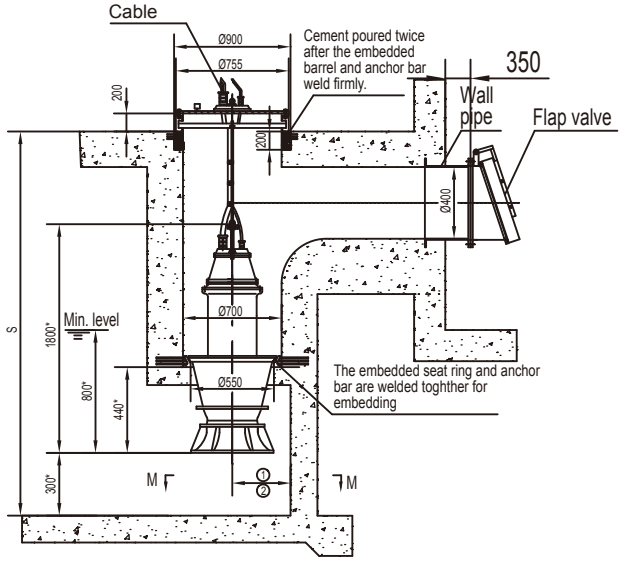
1. Suspension installation with bent pipe

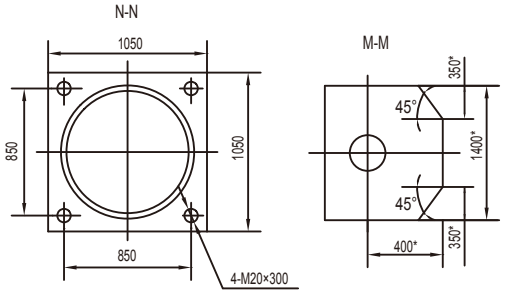


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





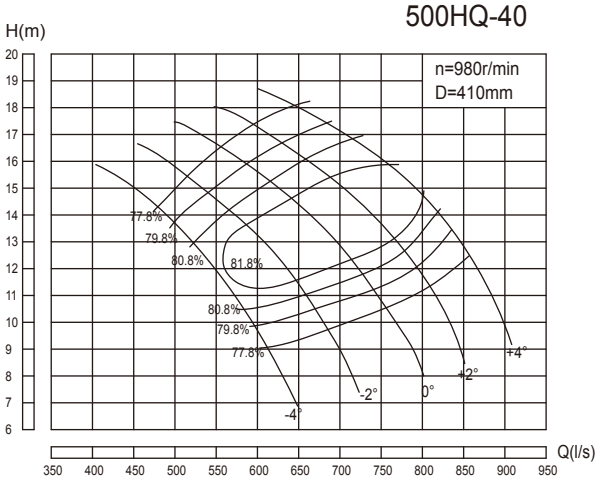
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

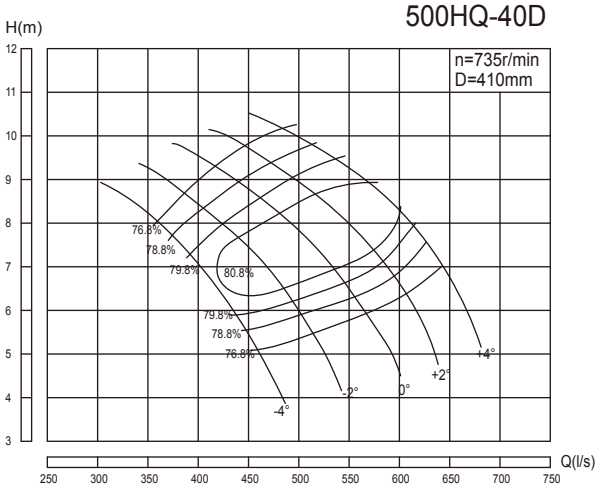
500HQ-40



500HQ-40 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	2205	612.5	9.07	980	70	90	77.8	410
	2018.5	560.7	11.65		78.5		81.6	
	1732.7	481.3	14.42		87.5		77.8	
-2°	2471.8	686.6	9.78		84.7	110	77.8	
	2236	621.1	12.63		94.1		81.8	
	1863.4	517.6	15.55		101.5		77.8	
0°	2714	753.9	10.55		100.3	132	77.8	
	2422.1	672.8	13.74		110.5		82.1	
	2005.9	557.2	16.7		117.3		77.8	
+2°	2912.8	809.1	11.42		116.5	160	77.8	
	2608.6	724.6	14.5		124.5		82.8	
	2142.7	595.2	17.53		131.6		77.8	
+4°	3086.6	857.4	12.58		136	160	77.8	
	2795	776.4	15.53		143.7		82.3	
	2329.2	647	18.24		148.8		77.8	

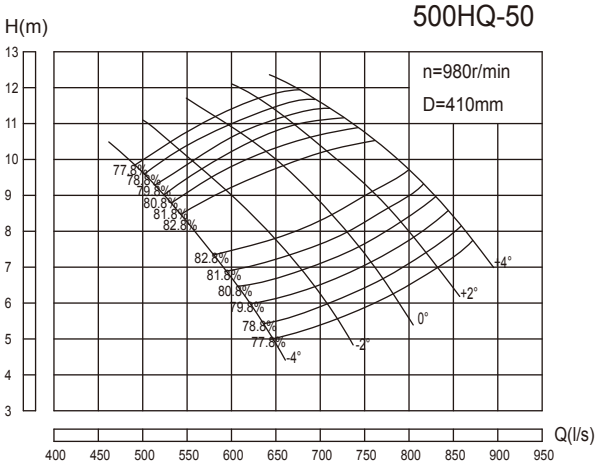
500HQ-40D



500HQ-40D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	1653.5	459.3	5.1	735	29.9	45	76.8	410
	1513.8	420.5	6.55		33.5		80.6	
	1299.6	361	8.11		37.4		76.8	
-2°	1854	515	5.5		36.2	45	76.8	
	1676.9	465.8	7.1		40.2		80.8	
	1397.5	388.2	8.75		43.4		76.8	
0°	2035.4	565.4	5.94		42.9	55	76.8	
	1816.6	504.6	7.73		47.2		81.1	
	1504.4	417.9	9.39		50.1		76.8	
+2°	2184.5	606.8	6.42		49.8	75	76.8	
	1956.2	543.4	8.16		53.2		81.8	
	1607	446.4	9.86		56.2		76.8	
+4°	2315.2	643.1	7.08		58.2	75	76.8	
	2096.3	582.3	8.73		61.3		81.3	
	1746.7	485.2	10.26		63.6		76.8	

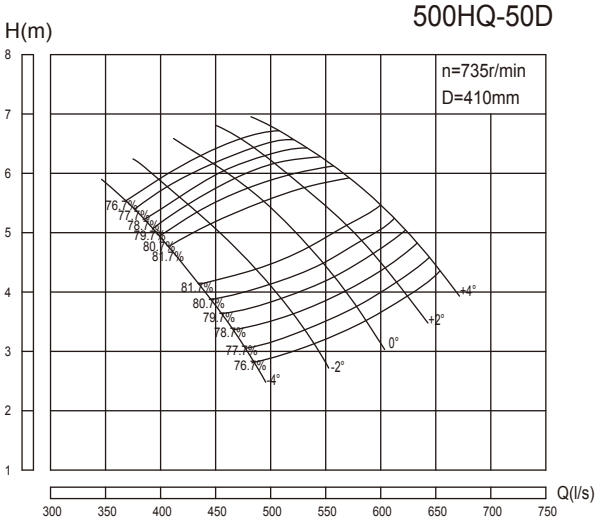
500HQ-50



500HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	2291.8	636.6	5.42	980	43	75	78.8	410
	1987.6	552.1	8.28		54.2		82.8	
	1795	498.6	9.6		59.6		78.8	
-2°	2546.3	707.3	5.97		52.6	75	78.8	
	2173.7	603.8	8.96		64		82.9	
	1950.1	541.7	10.24		69.1		78.8	
0°	2776.3	771.2	6.65		63.8	90	78.8	
	2422.1	672.8	9.38		74.8		82.8	
	2148.8	596.9	10.96		81.4		78.8	
+2°	2950.2	819.5	7.42		75.7	110	78.8	
	2546.3	707.3	10.24		85.8		82.8	
	2335.3	648.7	11.43		92.3		78.8	
+4°	3093.1	859.2	8.11		86.7	110	78.8	
	2732.8	759.1	10.58		95.2		82.8	
	2496.6	693.5	11.69		100.9		78.8	

500HQ-50D



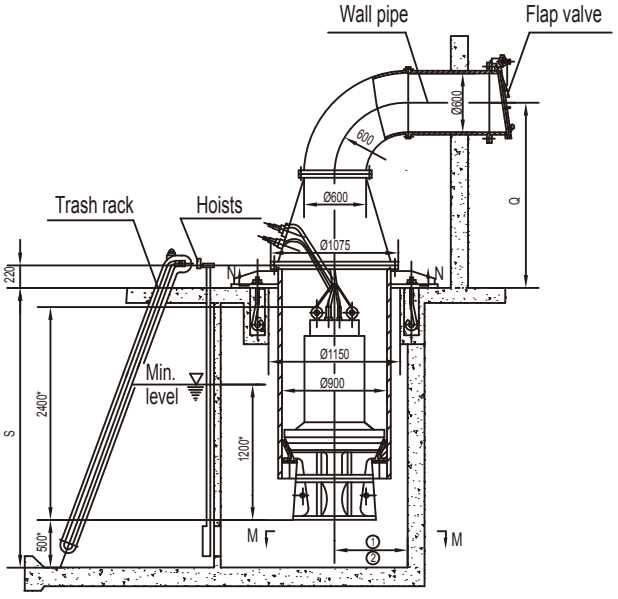
500HQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	1719	477.5	3.05	735	18.4	30	77.8	410
	1490.8	414.1	4.66		23.1		81.8	
	1346	373.9	5.4		25.5		77.8	
-2°	1909.8	530.5	3.36		22.5	37	77.8	
	1630.4	452.9	5.04		27.3		81.9	
	1462.7	406.3	5.76		29.5		77.8	
0°	2082.2	578.4	3.74		27.3	37	77.8	
	1816.6	504.6	5.28		32		81.8	
	1611.7	447.7	6.17		34.8		77.8	
+2°	2212.6	614.6	4.18		32.4	45	77.8	
	1909.8	530.5	5.76		36.6		81.8	
	1751.4	486.5	6.43		39.4		77.8	
+4°	2319.8	644.4	4.56		37.1	45	77.8	
	2049.5	569.3	5.95		40.6		81.8	
	1872.7	520.2	6.57		43.1		77.8	

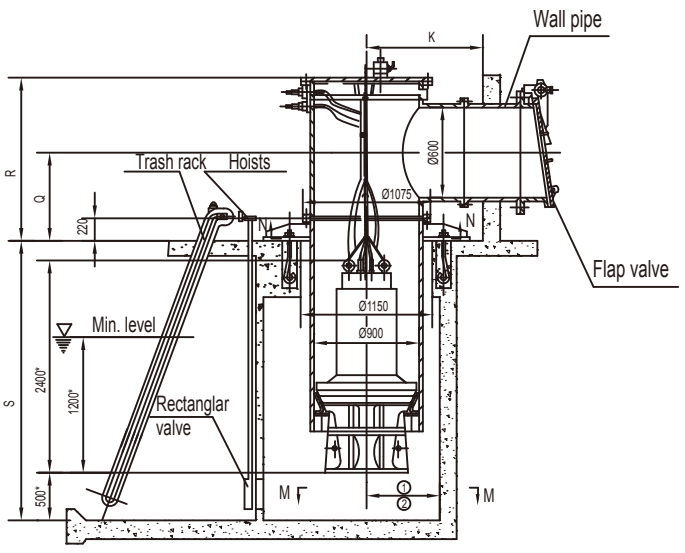
500HQ-40,500HQ-50,500HQ-40D,500HQ-50D

Outside installation dimensions drawing

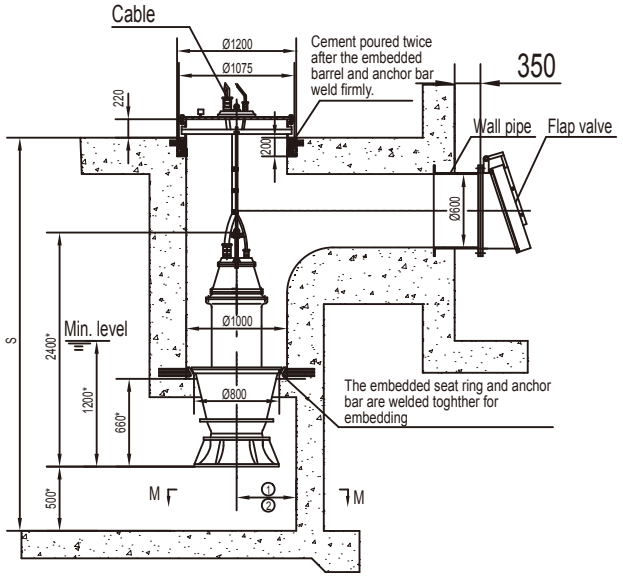
1. Suspension installation with bent pipe

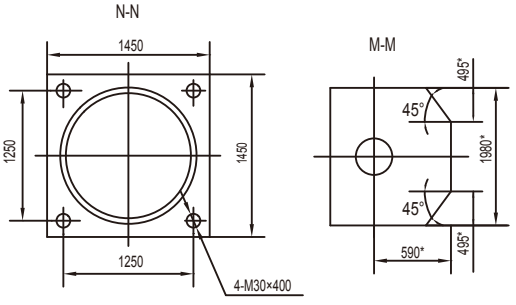


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete



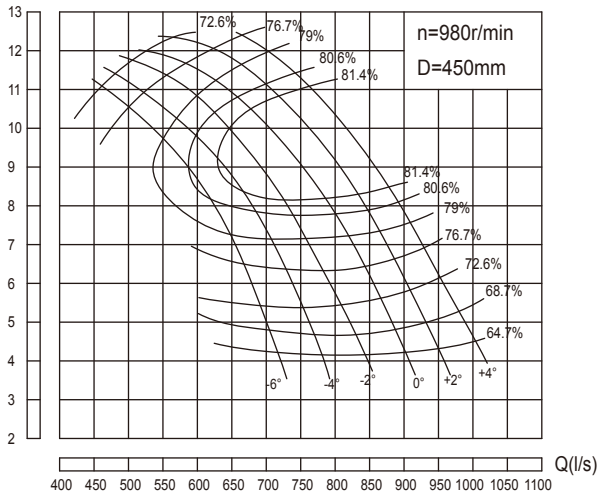


Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

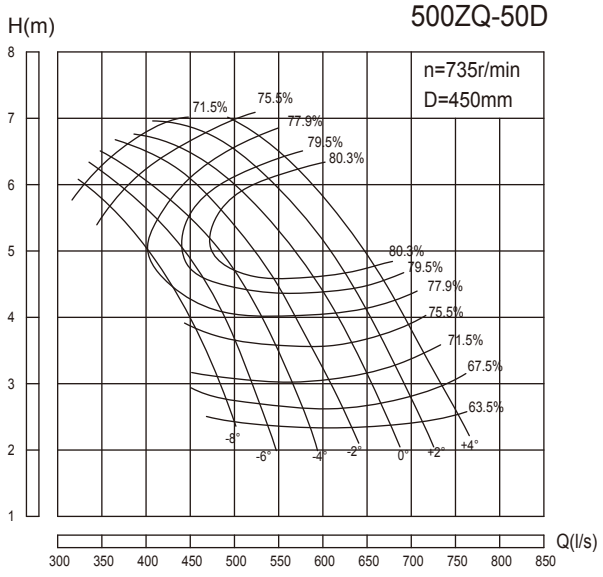
② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference



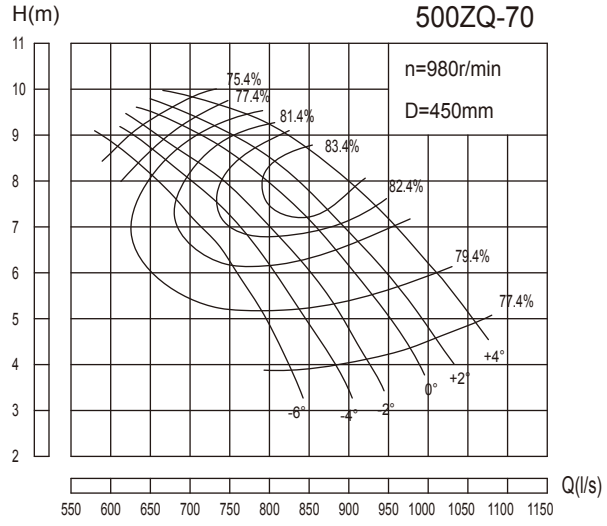
500ZQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	2510.6	697.4	4.8	980	47.8	75	68.7	450
	2118.6	588.5	8.77		62.6		80.9	
	1677.2	465.9	11.04		68.6		73.6	
-4°	2726.3	757.3	4.71		50.9	90	68.7	
	2303.3	639.8	9.04		69.1		82.1	
	1730.9	480.8	11.56		74.1		73.6	
-2°	2943.4	817.6	4.71		55	90	68.7	
	2372.8	659.1	9.31		73.3		82.1	
	1816.2	504.5	11.88		79.9		73.6	
0°	3178.4	882.9	4.93		62.2	110	68.7	
	2635.6	732.1	9.35		81.6		82.3	
	2104.6	584.6	11.72		87.6		76.7	
+2°	3370.7	936.3	5.04		67.4	110	68.7	
	2774.5	770.7	9.59		88.3		82.1	
	2264.8	629.1	12.11		97.4		76.7	
+4°	3498.8	971.9	5.47		75.9	110	68.7	
	2917.8	810.5	9.85		95.4		82.1	
	2371.7	658.8	12.33		103.9		76.7	



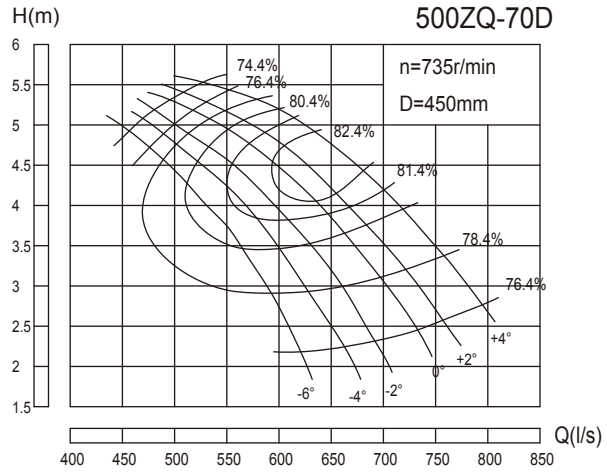
500ZQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	1882.8	523	2.7	735	20.5	37	67.6	450
	1589	441.4	4.93		26.8		79.8	
	1257.8	349.4	6.21		29.4		72.5	
-4°	2044.8	568	2.65		21.8	37	67.6	
	1727.6	479.9	5.08		29.5		81	
	1298.2	360.6	6.5		31.7		72.5	
-2°	2207.5	613.2	2.65		23.6	37	67.6	
	1779.5	494.3	5.23		31.3		81	
	1362.2	378.4	6.68		34.2		72.5	
0°	2383.9	662.2	2.77		26.6	45	67.6	
	1976.8	549.1	5.26		34.9		81.2	
	1578.6	438.5	6.59		37.5		75.6	
+2°	2527.9	702.2	2.84		28.9	45	67.6	
	2080.8	578	5.39		37.7		81	
	1698.8	471.9	6.81		41.7		75.6	
+4°	2624	728.9	3.08		32.6	55	67.6	
	2188.1	607.8	5.54		40.8		81	
	1778.8	494.1	6.94		44.5		75.6	



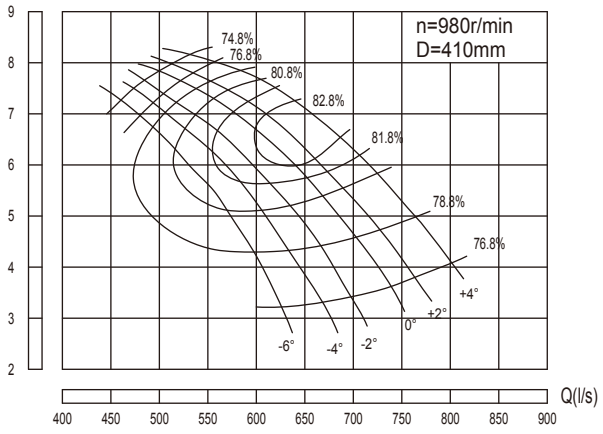
500ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	2956.3	821.2	3.85	980	39.2	75	79.2	450
	2627.6	729.9	6.78		58.3		83.2	
	2176.2	604.5	8.74		67.1		77.2	
-4°	3161.5	878.2	3.96		43.1	75	79.2	
	2693.5	748.2	7.19		62.5		84.4	
	2258.3	627.3	9.13		72.8		77.2	
-2°	3325.7	923.8	4.11		47	90	79.2	
	2833.2	787	7.5		68.4		84.6	
	2307.6	641	9.25		75.3		77.2	
0°	3489.8	969.4	4.42		53.1	90	79.2	
	2948	818.9	7.83		73.4		85.7	
	2364.8	656.9	9.56		79.8		77.2	
+2°	3613.3	1003.7	4.62		57.4	90	79.2	
	3021.8	839.4	7.91		75.7		86.1	
	2389.7	663.8	9.66		81.5		77.2	
+4°	3793.7	1053.8	5.04		65.8	110	79.2	
	3137	871.4	8.43		84.6		85.2	
	2537.3	704.8	9.87		88.4		77.2	



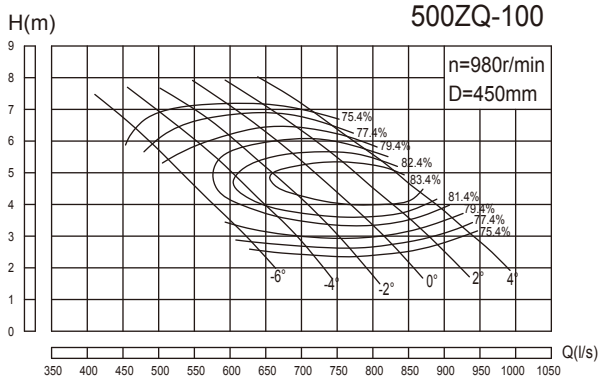
500ZQ-70D Performance parameter list

Blade angle 放角	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	2217.2	615.9	2.17	735	16.7	37	78.4	450
	1970.6	547.4	3.82		24.9		82.4	
	1632.2	453.4	4.91		28.6		76.4	
-4°	2371	658.6	2.23		18.4	37	78.4	
	2020	561.1	4.05		26.7		83.6	
	1693.8	470.5	5.13		31		76.4	
-2°	2494.4	692.9	2.31		20	37	78.4	
	2124.7	590.2	4.22		29.2		83.8	
	1730.5	480.7	5.2		32.1		76.4	
0°	2617.6	727.1	2.49		22.7	37	78.4	
	2211.1	614.2	4.41		31.3		84.9	
	1773.7	492.7	5.38		34		76.4	
+2°	2709.7	752.7	2.6		24.5	37	78.4	
	2266.6	629.6	4.45		32.2		85.3	
	1792.1	497.8	5.43		34.7		76.4	
+4°	2845.4	790.4	2.83		28	45	78.4	
	2352.6	653.5	4.74		36		84.4	
	1903	528.6	5.55		37.7		76.4	



500ZQ-70A Performance parameter list

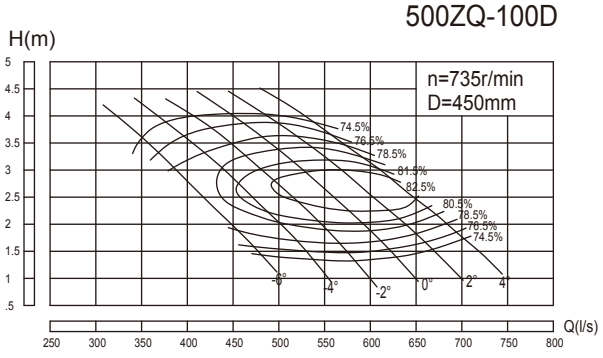
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	2236	621.1	3.2		25.4		76.8	
-6°	1987.6	552.1	5.63		37.7	45	80.8	
	1645.9	457.2	7.25		43.5		74.8	
	2391.1	664.2	3.28		27.8		76.8	
-4°	2037.2	565.9	5.97		40.4	55	82	
	1707.8	474.4	7.58		47.2		74.8	
	2515.3	698.7	3.41		30.4		76.8	
-2°	2142.7	595.2	6.23		44.3	55	82.2	
	1745.3	484.8	7.68		48.8		74.8	
	2639.5	733.2	3.67	980	34.4		76.8	410
0°	2229.8	619.4	6.5		47.4	55	83.3	
	1788.8	496.9	7.93		51.7		74.8	
	2732.8	759.1	3.84		37.2		76.8	
+2°	2285.6	634.9	6.57		48.9	55	83.7	
	1807.2	502	8.02		52.8		74.8	
	2869.6	797.1	4.18		42.6		76.8	
+4°	2372.4	659	7		54.7	75	82.8	
	1919.2	533.1	8.19		57.3		74.8	



500ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	2184.5	606.8	3.29		24.7		79.4	
-6°	2053.1	570.3	4.14		28.6	37	81	
	1847.5	513.2	5.45		34.6		79.4	
	2496.2	693.4	3.01		25.8		79.4	
-4°	2299.3	638.7	4.21		32	45	82.5	
	2007.7	557.7	5.91		40.7		79.4	
	2718	755	2.93		27.3		79.4	
-2°	2504.5	695.7	4.33		35.6	55	83.1	
	2151.4	597.6	6.2		45.8		79.4	
	2931.5	814.3	3.02	980	30.4		79.4	450
0°	2709.7	752.7	4.32		38.2	55	83.4	
	2311.6	642.1	6.42		50.9		79.4	
	3120.5	866.8	3.26		34.9		79.4	
+2°	2874.2	798.4	4.55		42.5	75	83.9	
	2496.2	693.4	6.44		55.2		79.4	
	3284.6	912.4	3.58		40.4		79.4	
+4°	3079.4	855.4	4.57		45.9	75	83.6	
	2750.8	764.1	6.17		58.2		79.4	

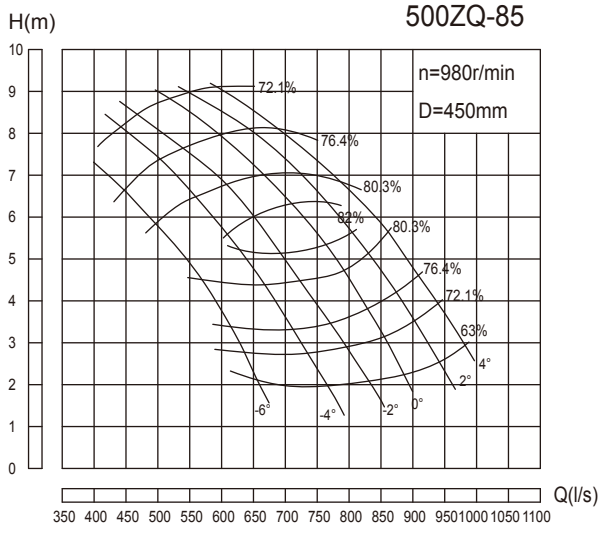
500ZQ-100D



500ZQ-100D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	1638.4	455.1	1.85	735	10.5	18.5	78.5	450
	1539.7	427.7	2.33		12.2		80.1	
	1385.6	384.9	3.06		14.7		78.5	
-4°	1872.4	520.1	1.69		11	22	78.5	
	1724.4	479	2.37		13.6		81.6	
	1505.9	418.3	3.32		17.4		78.5	
-2°	2038.7	566.3	1.65		11.7	22	78.5	
	1878.5	521.8	2.43		15.1		82.2	
	1613.5	448.2	3.49		19.5		78.5	
0°	2198.5	610.7	1.7		13	30	78.5	
	2032.6	564.6	2.43		16.3		82.5	
	1733.8	481.6	3.61		21.7		78.5	
+2°	2340.4	650.1	1.83		14.9	30	78.5	
	2155.7	598.8	2.56		18.1		83	
	1872.4	520.1	3.62		23.5		78.5	
+4°	2463.5	684.3	2.01		17.2	30	78.5	
	2309.4	641.5	2.57		19.6		82.7	
	2063.2	573.1	3.47		24.9		78.5	

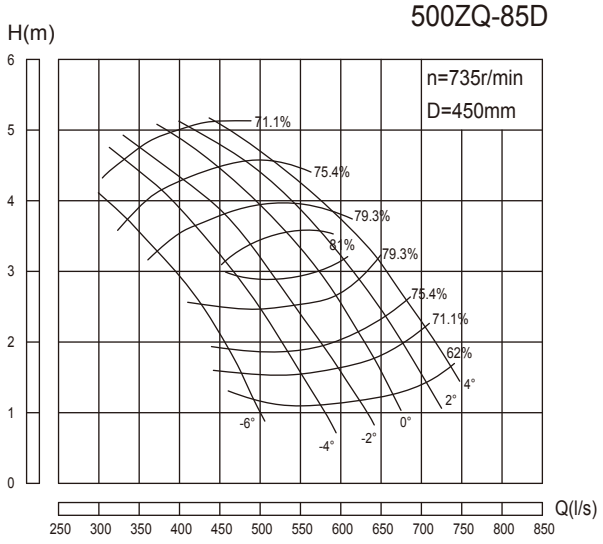
500ZQ-85



500ZQ-85 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	2225.5	618.2	2.87	980	24.1	45	72.2	450
	2036.5	565.7	4.36		29.8		81.2	
	1437.1	399.2	7.35		39.9		72.2	
-4°	2578.3	716.2	2.77		27	55	72.2	
	2200.7	611.3	5.34		39		82.2	
	1576.8	438	7.8		46.4		72.2	
-2°	2898.7	805.2	2.87		31.4	75	72.2	
	2504.5	695.7	5.24		43.5		82.2	
	1732.7	481.3	8.17		53.4		72.2	
0°	3120.5	866.8	3.13		36.9	75	72.2	
	2742.8	761.9	5.44		48.9		83.2	
	1905.1	529.2	8.48		61		72.2	
+2°	3334	926.1	3.6		45.3	75	72.2	
	2931.5	814.3	5.81		56.5		82.2	
	2077.6	577.1	8.73		68.5		72.2	
+4°	3547.4	985.4	4.04		54.1	90	72.2	
	2997.4	832.6	6.57		66.1		81.2	
	2266.6	629.6	8.72		74.6		72.2	

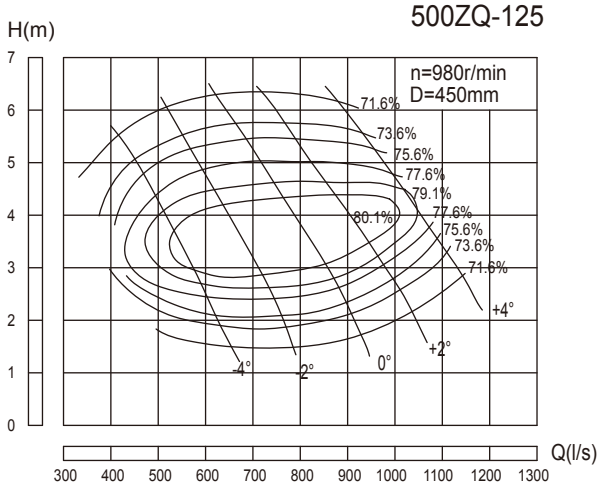
500ZQ-85D



500ZQ-85D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	1669	463.6	1.61	735	10.3	18.5	71.2	450
	1527.5	424.3	2.45		12.7		80.2	
	1077.8	299.4	4.13		17		71.2	
-4°	1933.9	537.2	1.56		11.5	22	71.2	
	1650.6	458.5	3.01		16.7		81.2	
	1182.6	328.5	4.39		19.9		71.2	
-2°	2174	603.9	1.61		13.4	30	71.2	
	1878.5	521.8	2.95		18.6		81.2	
	1299.6	361	4.6		22.9		71.2	
0°	2340.4	650.1	1.76		15.8	30	71.2	
	2057	571.4	3.06		20.9		82.2	
	1428.8	396.9	4.77		26.1		71.2	
+2°	2500.6	694.6	2.02		19.3	37	71.2	
	2198.5	610.7	3.27		24.1		81.2	
	1558.1	432.8	4.91		29.3		71.2	
+4°	2660.8	739.1	2.27		23.1	37	71.2	
	2247.8	624.4	3.69		28.2		80.2	
	1699.9	472.2	4.9		31.9		71.2	

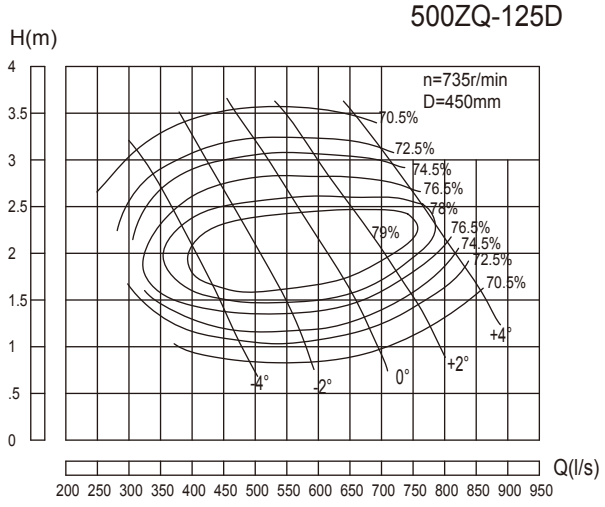
500ZQ-125



500ZQ-125 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	2233.4	620.4	2.1	980	16.9	37	75.6	450
	2036.5	565.7	3.11		21.5		80.1	
	1625.8	451.6	5.07		30.5		73.6	
-2°	2734.6	759.6	2.09		20.6	45	75.6	
	2521.1	700.3	3.23		27.6		80.5	
	1987.2	552	5.49		40.4		73.6	
0°	3227	896.4	2.34		27.2	55	75.6	
	2972.5	825.7	3.56		35.6		81.1	
	2389.7	663.8	5.76		51		73.6	
+2°	3588.5	996.8	2.77		35.8	75	75.6	
	3301.2	917	3.68		41.1		80.5	
	2767.3	768.7	5.76		59		73.6	
+4°	3917.2	1088.1	3.56		50.3	75	75.6	
	3752.6	1042.4	4.07		52.4		79.4	
	3350.5	930.7	5.56		69		73.6	

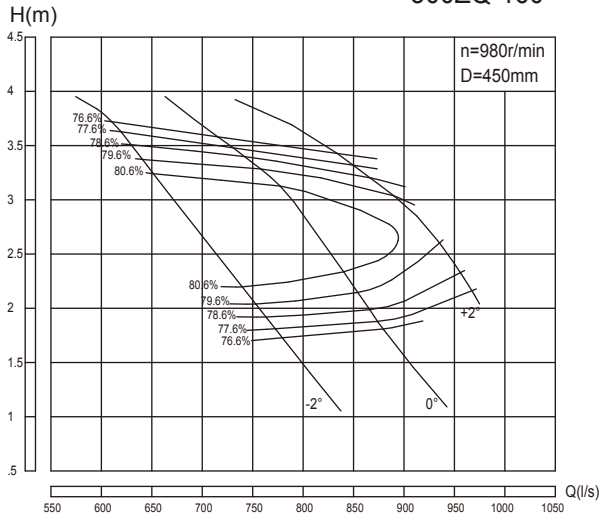
500ZQ-125D



500ZQ-125D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	1675.1	465.3	1.18	735	7.2	15	74.5	450
	1527.5	424.3	1.75		9.2		79	
	1219.3	338.7	2.85		13.1		72.5	
-2°	2050.9	569.7	1.17		8.8	18.5	74.5	
	1890.7	525.2	1.82		11.8		79.4	
	1490.4	414	3.09		17.3		72.5	
0°	2420.3	672.3	1.32		11.7	30	74.5	
	2229.5	619.3	2		15.2		80	
	1792.1	497.8	3.24		21.8		72.5	
+2°	2691.4	747.6	1.56		15.4	30	74.5	
	2475.7	687.7	2.07		17.6		79.4	
	2075.4	576.5	3.24		25.3		72.5	
+4°	2937.6	816	2		21.5	37	74.5	
	2814.5	781.8	2.29		22.4		78.3	
	2512.8	698	3.13		29.6		72.5	

500ZQ-160



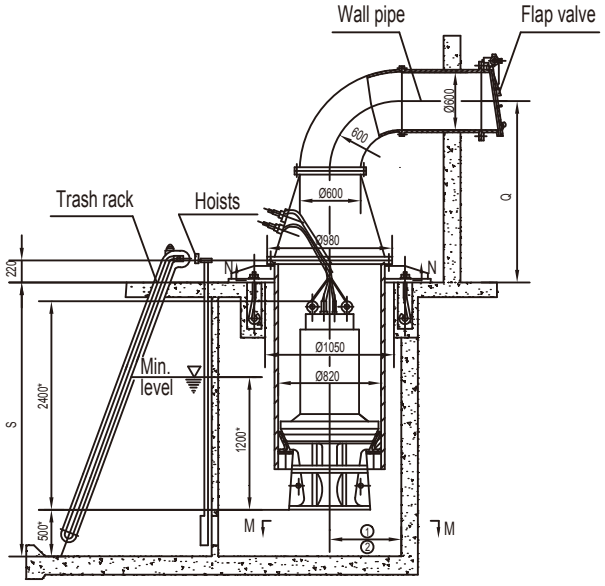
500ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	2780.6	772.4	1.81	980	17.7	37	77.6	450
	2545.6	707.1	2.56		21.6		82.1	
	2229.5	619.3	3.63		28.4		77.6	
0°	3142.8	873	1.87		20.6	37	77.6	
	2956.3	821.2	2.57		25.5		81.1	
	2633.4	731.5	3.47		32.1		77.6	
+2°	3482.6	967.4	2.16		26.4	37	77.6	
	3301.2	917	2.77		31.3		79.6	
	3058.2	849.5	3.32		35.7		77.6	

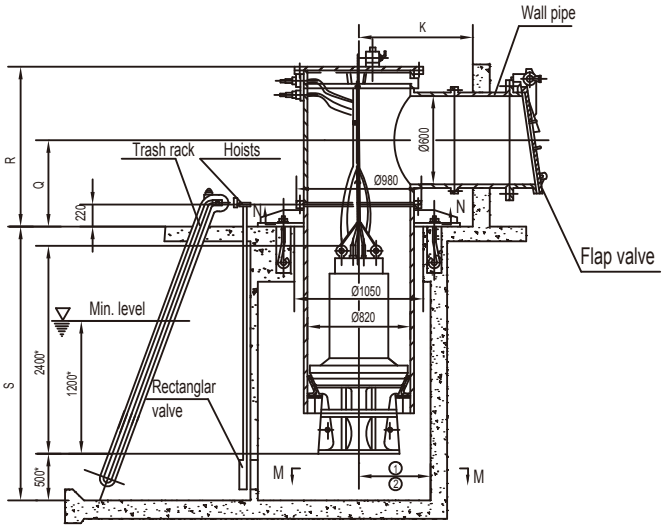
500ZQ-50,500ZQ-70,500ZQ-70A,500ZQ-85,500ZQ-100,500ZQ-125,500ZQ-160
500ZQ-50D,500ZQ-70D,500ZQ-85D,500ZQ-100D,500ZQ-125D

Outside installation dimensions drawing

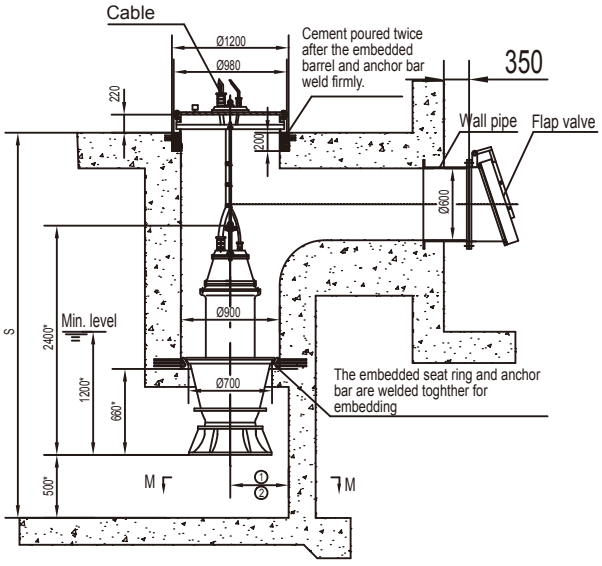
1. Suspension installation with bent pipe

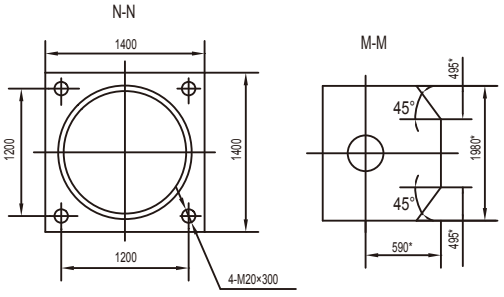


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete



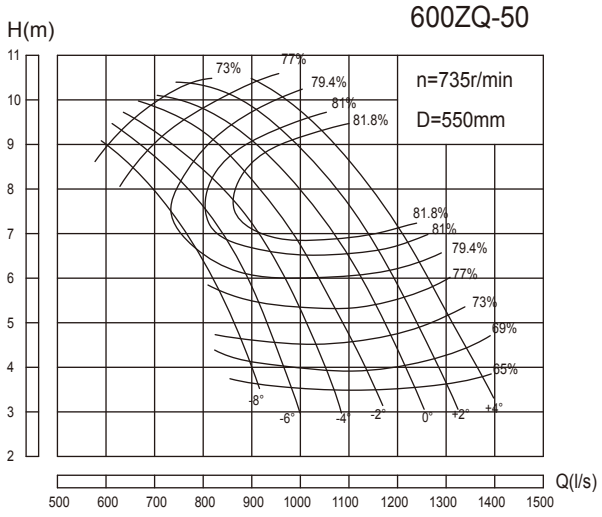


Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

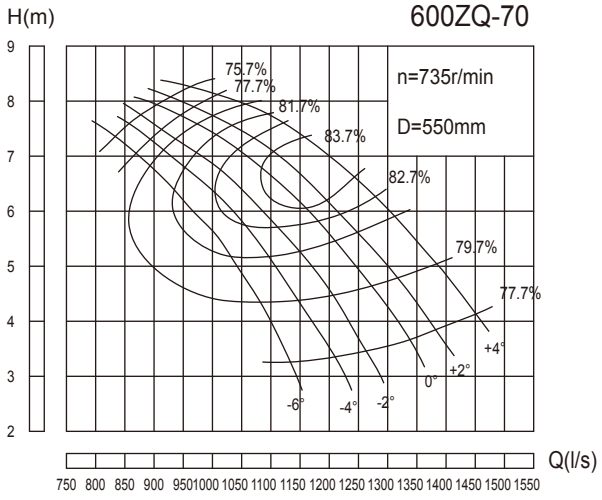
② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference



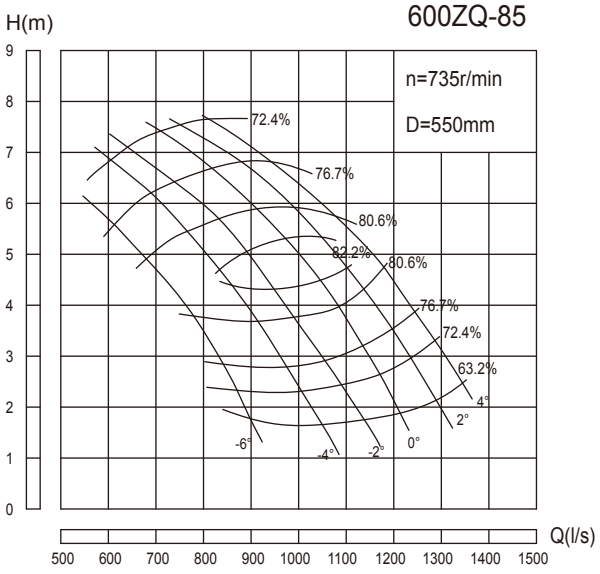
600ZQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	3438	955	4.03	735	54.6	90	69.1	550
	2900.9	805.8	7.37		71.7		81.3	
	2296.8	638	9.28		78.5		74	
-4°	3733.6	1037.1	3.96		58.3	90	69.1	
	3154	876.1	7.59		79.1		82.5	
	2369.9	658.3	9.71		84.7		74	
-2°	4030.6	1119.6	3.96		62.9	110	69.1	
	3249	902.5	7.82		83.9		82.5	
	2486.9	690.8	9.99		91.5		74	
0°	4352.4	1209	4.14		71.1	110	69.1	
	3609	1002.5	7.86		93.5		82.7	
	2882.2	800.6	9.84		100.2		77.1	
+2°	4615.6	1282.1	4.24		77.2	132	69.1	
	3799.1	1055.3	8.05		101		82.5	
	3101.4	861.5	10.17		111.5		77.1	
+4°	4791.2	1330.9	4.6		86.9	132	69.1	
	3995.3	1109.8	8.28		109.3		82.5	
	3247.6	902.1	10.36		118.9		77.1	



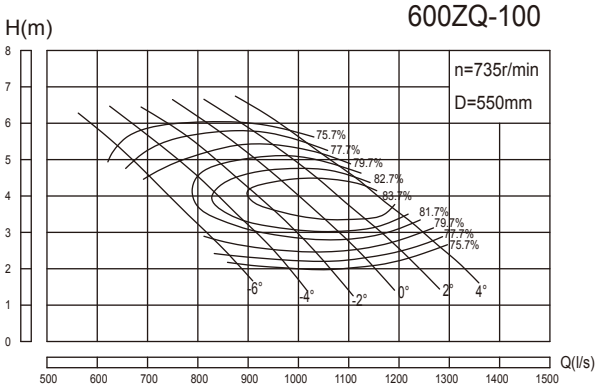
600ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	4048.2	1124.5	3.24	735	46	90	77.7	550
	3598.2	999.5	5.7		68.4		81.7	
	2979.7	827.7	7.34		78.7		75.7	
-4°	4329.4	1202.6	3.32		50.4	110	77.7	
	3688.2	1024.5	6.05		73.3		82.9	
	3092.4	859	7.67		85.4		75.7	
-2°	4554	1265	3.45		55.1	110	77.7	
	3879.4	1077.6	6.3		80.1		83.1	
	3159.7	877.7	7.77		88.4		75.7	
0°	4779	1327.5	3.71		62.2	110	77.7	
	4036.7	1121.3	6.58		86		84.2	
	3238.6	899.6	8.03		93.6		75.7	
+2°	4947.5	1374.3	3.89		67.5	110	77.7	
	4138.2	1149.5	6.65		88.6		84.6	
	3272	908.9	8.12		95.6		75.7	
+4°	5195.2	1443.1	4.23		77.1	110	77.7	
	4295.5	1193.2	7.08		99		83.7	
	3474.7	965.2	8.29		103.7		75.7	



600ZQ-85 Performance parameter list

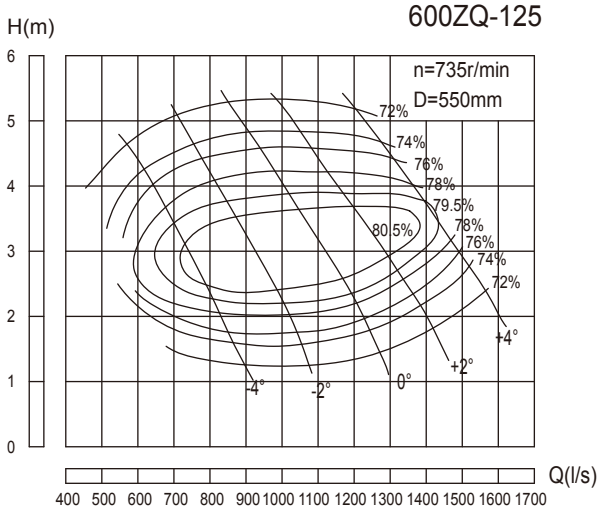
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	3047.4	846.5	2.41	735	27.6	55	72.5	550
	2788.6	774.6	3.66		34.1		81.5	
	1967.8	546.6	6.17		45.6		72.5	
-4°	3530.9	980.8	2.33		30.9	75	72.5	
	3013.6	837.1	4.49		44.7		82.5	
	2158.9	599.7	6.55		53.2		72.5	
-2°	3969.4	1102.6	2.41		36	75	72.5	
	3429.7	952.7	4.4		49.8		82.5	
	2372.8	659.1	6.87		61.3		72.5	
0°	4272.8	1186.9	2.63		42.2	75	72.5	
	3755.9	1043.3	4.57		56		83.5	
	2608.9	724.7	7.12		69.8		72.5	
+2°	4565.2	1268.1	3.02		51.8	90	72.5	
	4014.4	1115.1	4.88		64.7		82.5	
	2844.7	790.2	7.33		78.4		72.5	
+4°	4857.8	1349.4	3.39		61.9	90	72.5	
	4104.4	1140.1	5.52		75.8		81.5	
	3103.6	862.1	7.32		85.4		72.5	



600ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	2991.2	830.9	2.76	735	28.2	45	79.8	550
	2811.2	780.9	3.48		32.8		81.4	
	2530.1	702.8	4.58		39.6		79.8	
-4°	3418.2	949.5	2.53		29.5	55	79.8	
	3148.6	874.6	3.54		36.6		82.9	
	2749.3	763.7	4.97		46.7		79.8	
-2°	3722	1033.9	2.46		31.3	55	79.8	
	3429.7	952.7	3.64		40.7		83.5	
	2946.2	818.4	5.21		52.4		79.8	
0°	4014.4	1115.1	2.54		34.8	75	79.8	
	3710.9	1030.8	3.63		43.8		83.8	
	3165.5	879.3	5.4		58.4		79.8	
+2°	4272.8	1186.9	2.74		40	75	79.8	
	3935.5	1093.2	3.83		48.7		84.3	
	3418.2	949.5	5.41		63.1		79.8	
+4°	4497.8	1249.4	3.01		46.2	75	79.8	
	4216.7	1171.3	3.84		52.5		84	
	3767	1046.4	5.18		66.6		79.8	

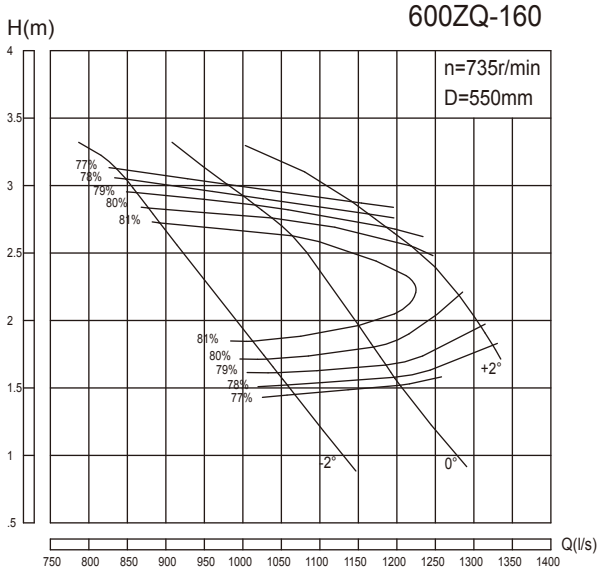
600ZQ-125



600ZQ-125 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	3058.6	849.6	1.76	735	19.3	37	76.1	550
	2788.6	774.6	2.62		24.7		80.6	
	2226.6	618.5	4.26		34.9		74.1	
-2°	3744.4	1040.1	1.75		23.5	55	76.1	
	3452	958.9	2.71		31.5		81	
	2721.2	755.9	4.61		46.1		74.1	
0°	4419	1227.5	1.97		31.2	75	76.1	
	4070.5	1130.7	2.99		40.6		81.6	
	3272	908.9	4.84		58.2		74.1	
+2°	4914	1365	2.33		41	75	76.1	
	4520.5	1255.7	3.09		47		81	
	3789.4	1052.6	4.84		67.4		74.1	
+4°	5363.6	1489.9	2.99		57.4	90	76.1	
	5138.6	1427.4	3.42		59.9		79.9	
	4587.8	1274.4	4.67		78.8		74.1	

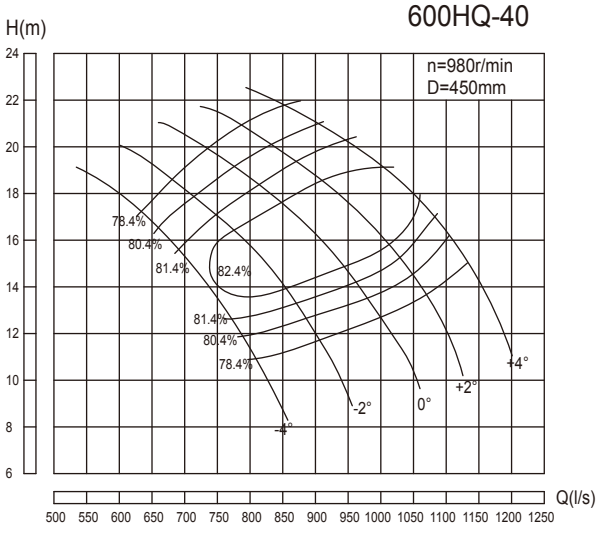
600ZQ-160



600ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	3807.7	1057.7	1.52	735	20.2	37	78	550
	3485.9	968.3	2.15		24.8		82.5	
	3052.8	848	3.05		32.5		78	
0°	4303.8	1195.5	1.57		23.6	45	78	
	4048.2	1124.5	2.16		29.2		81.5	
	3605.8	1001.6	2.92		36.8		78	
+2°	4768.9	1324.7	1.81		30.2	45	78	
	4520.5	1255.7	2.33		35.9		80	
	4187.9	1163.3	2.79		40.8		78	

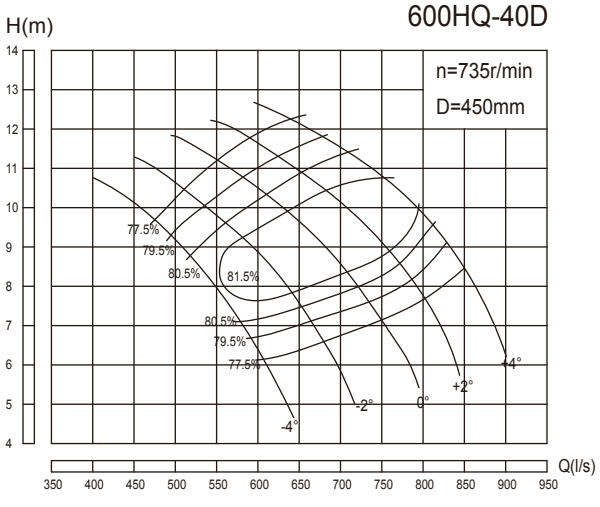
600HQ-40



600HQ-40 Performance parameter list

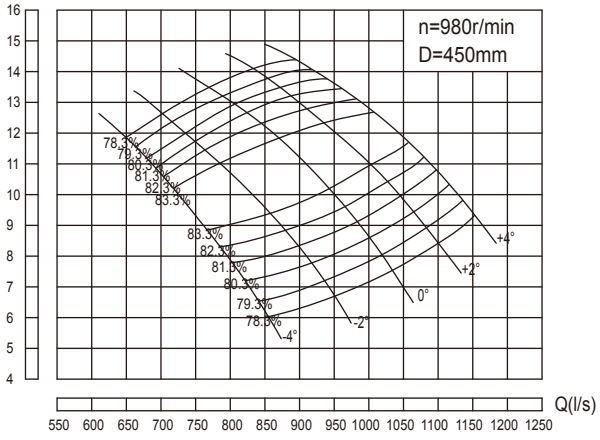
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	2915.3	809.8	10.93		110.8		78.4	
-4°	2668.7	741.3	14.03		124.1	160	82.2	
	2291	636.4	17.37		138.3		78.4	
	3268.4	907.9	11.78		133.8		78.4	
-2°	2956.3	821.2	15.21		148.7	185	82.4	
	2463.5	684.3	18.74		160.5		78.4	
	3588.5	996.8	12.71		158.5		78.4	
0°	3202.6	889.6	16.55	980	174.6	200	82.7	450
	2652.5	736.8	20.11		185.4		78.4	
	3851.3	1069.8	13.75		184.1		78.4	
+2°	3448.8	958	17.47		196.9	220	83.4	
	2833.2	787	21.12		208		78.4	
	4081.3	1133.7	15.16		215.1		78.4	
+4°	3695.4	1026.5	18.71		227.3	250	82.9	
	3079.4	855.4	21.97		235.2		78.4	

600HQ-40D



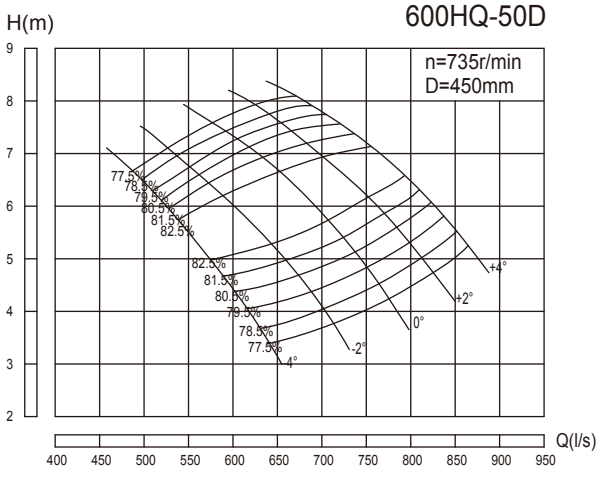
600HQ-40D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	2186.3	607.3	6.15		47.3		77.5	
-4°	2001.6	556	7.89		52.9	75	81.3	
	1718.3	477.3	9.77		59		77.5	
	2451.2	680.9	6.63		57.1		77.5	
-2°	2217.2	615.9	8.56		63.5	75	81.5	
	1847.5	513.2	10.54		68.5		77.5	
	2691.4	747.6	7.15		67.7		77.5	
0°	2401.9	667.2	9.31	735	74.5	90	81.8	450
	1989.4	552.6	11.31		79.1		77.5	
	2888.6	802.4	7.74		78.6		77.5	
+2°	2586.6	718.5	9.83		84	110	82.5	
	2124.7	590.2	11.88		88.8		77.5	
	3061.1	850.3	8.53		91.8		77.5	
+4°	2771.3	769.8	10.52		96.9	110	82	
	2309.4	641.5	12.36		100.4		77.5	



600HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	3030.1	841.7	6.53	980	67.9	110	79.4	450
	2627.6	729.9	9.97		85.6		83.4	
	2373.1	659.2	11.56		94.2		79.4	
-2°	3366.7	935.2	7.19		83.1	132	79.4	
	2874.2	798.4	10.79		101.2		83.5	
	2578.3	716.2	12.33		109.1		79.4	
0°	3670.6	1019.6	8.02		101	132	79.4	
	3202.6	889.6	11.31		118.3		83.4	
	2841.1	789.2	13.21		128.8		79.4	
+2°	3900.6	1083.5	8.94		119.7	160	79.4	
	3366.7	935.2	12.33		135.6		83.4	
	3087.7	857.7	13.77		145.9		79.4	
+4°	4089.6	1136	9.76		137	185	79.4	
	3613.3	1003.7	12.74		150.4		83.4	
	3301.2	917	14.08		159.5		79.4	



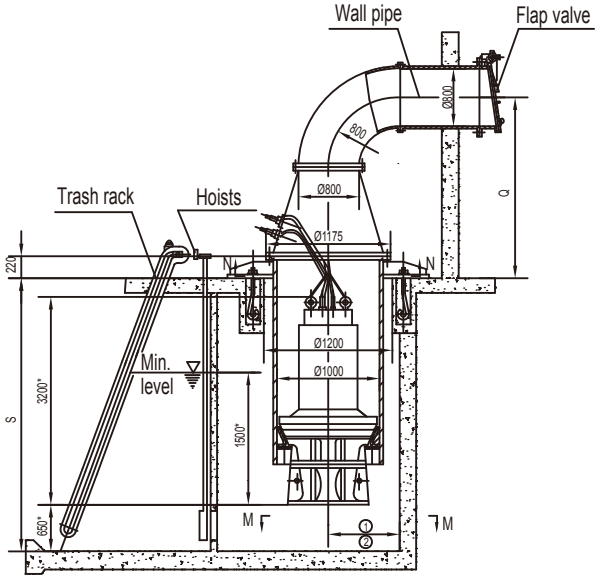
600HQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	2272.7	631.3	3.67	735	29	45	78.5	450
	1970.6	547.4	5.61		36.5		82.5	
	1779.8	494.4	6.5		40.2		78.5	
-2°	2525	701.4	4.05		35.5	55	78.5	
	2155.7	598.8	6.07		43.2		82.6	
	1933.9	537.2	6.94		46.6		78.5	
0°	2752.9	764.7	4.51		43.1	75	78.5	
	2401.9	667.2	6.36		50.5		82.5	
	2130.8	591.9	7.43		55		78.5	
+2°	2925.4	812.6	5.03		51.1	75	78.5	
	2525	701.4	6.94		57.9		82.5	
	2315.9	643.3	7.75		62.3		78.5	
+4°	3067.2	852	5.49		58.5	75	78.5	
	2709.7	752.7	7.17		64.2		82.5	
	2475.7	687.7	7.92		68.1		78.5	

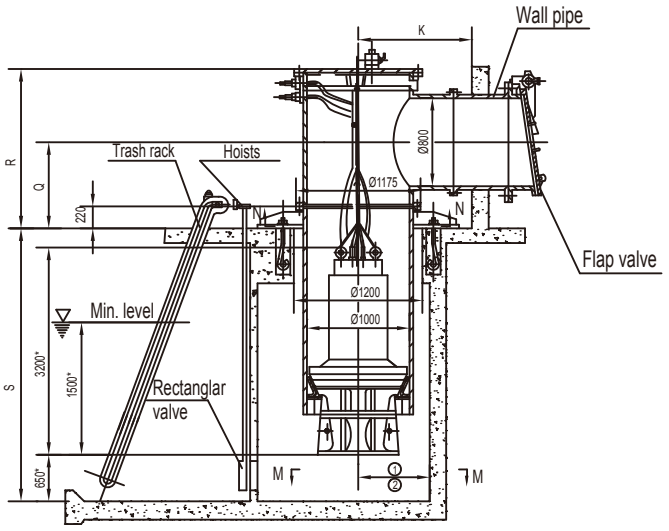
600ZQ-50,600ZQ-70,600ZQ-85,600ZQ-100,600ZQ-125,600ZQ-160
600HQ-40,600HQ-40D,600HQ-50,600HQ-50D

Outside installation dimensions drawing

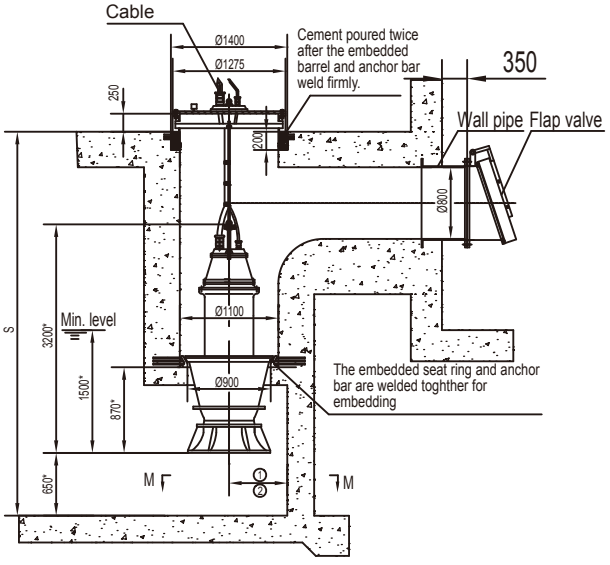
1. Suspension installation with bent pipe

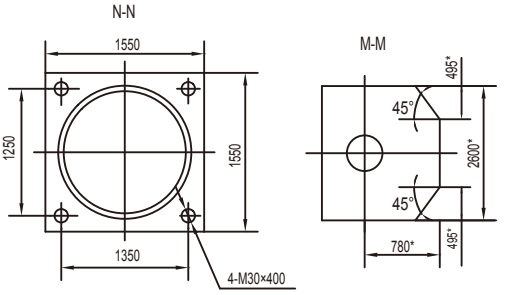


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





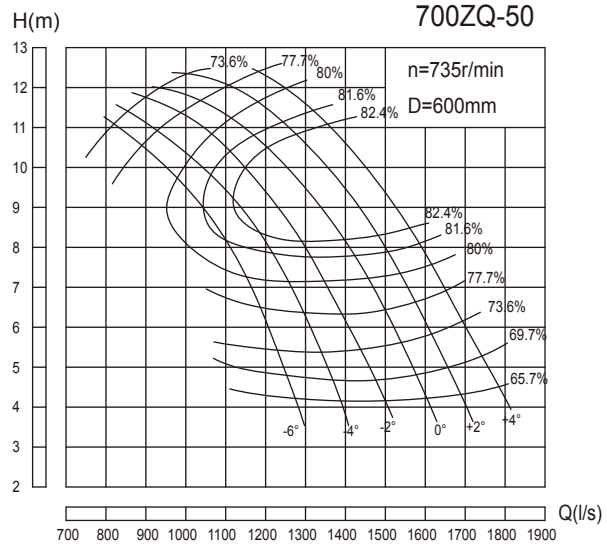
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

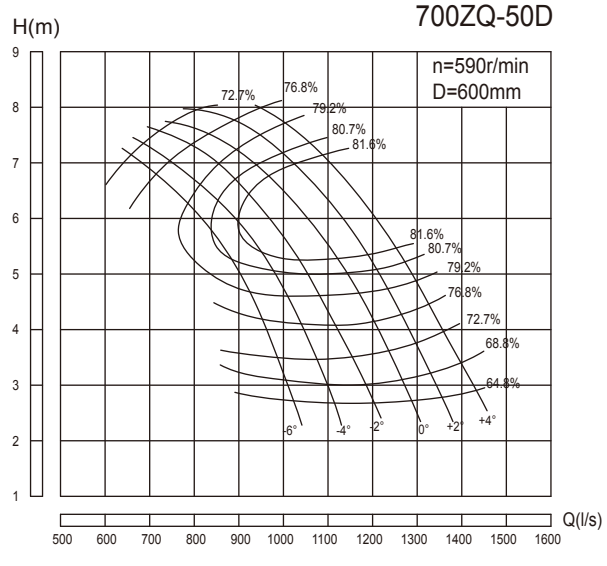
700ZQ-50



700ZQ-50 Performance parameter list

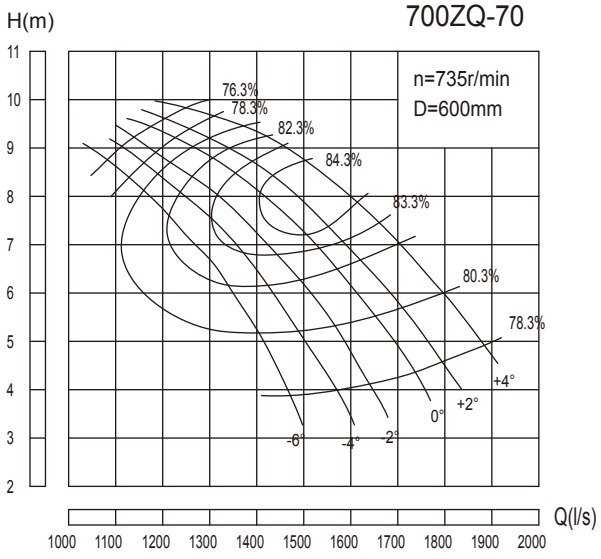
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	4463.3	1239.8	4.8	735	83.8	132	69.7	600
	3766.3	1046.2	8.77		109.9		81.9	
	2981.9	828.3	11.04		120.3		74.6	
-4°	4847	1346.4	4.71		89.3	160	69.7	
	4095	1137.5	9.04		121.4		83.1	
	3076.9	854.7	11.56		129.9		74.6	
-2°	5232.6	1453.5	4.71		96.4	160	69.7	
	4218.5	1171.8	9.31		128.8		83.1	
	3228.8	896.9	11.88		140.1		74.6	
0°	5650.6	1569.6	4.93		108.9	160	69.7	
	4685.4	1301.5	9.35		143.3		83.3	
	3741.5	1039.3	11.72		153.8		77.7	
+2°	5992.2	1664.5	5.04		118.1	185	69.7	
	4932.4	1370.1	9.59		155.1		83.1	
	4026.6	1118.5	12.11		171		77.7	
+4°	6220.1	1727.8	5.47		133	200	69.7	
	5186.9	1440.8	9.85		167.5		83.1	
	4216.3	1171.2	12.33		182.3		77.7	

700ZQ-50D



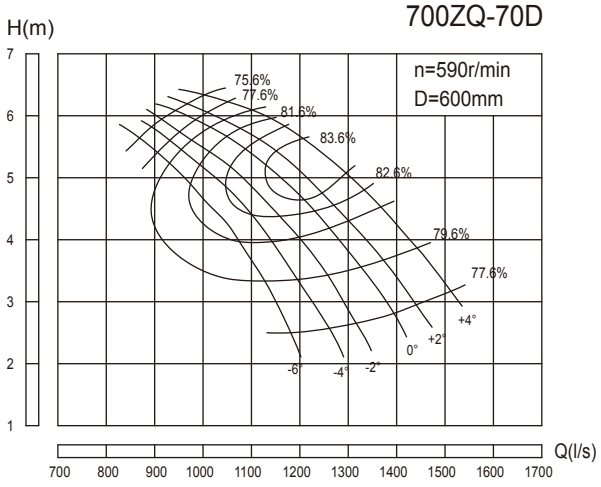
700ZQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	3582.7	995.2	3.09	590	43.8	75	68.9	600
	3023.3	839.8	5.65		57.4		81.1	
	2393.6	664.9	7.12		62.9		73.8	
-4°	3890.9	1080.8	3.03		46.6	75	68.9	
	3287.2	913.1	5.82		63.3		82.3	
	2470	686.1	7.45		67.9		73.8	
-2°	4200.1	1166.7	3.03		50.3	75	68.9	
	3386.2	940.6	6		67.3		82.3	
	2591.6	719.9	7.66		73.3		73.8	
0°	4535.6	1259.9	3.18		57	90	68.9	
	3761.3	1044.8	6.02		74.8		82.5	
	3003.5	834.3	7.55		80.4		76.9	
+2°	4810	1336.1	3.25		61.8	110	68.9	
	3959.3	1099.8	6.18		81		82.3	
	3232.1	897.8	7.8		89.3		76.9	
+4°	4993.2	1387	3.53		69.7	110	68.9	
	4163.8	1156.6	6.35		87.5		82.3	
	3384.7	940.2	7.95		95.4		76.9	



700ZQ-70 Performance parameter list

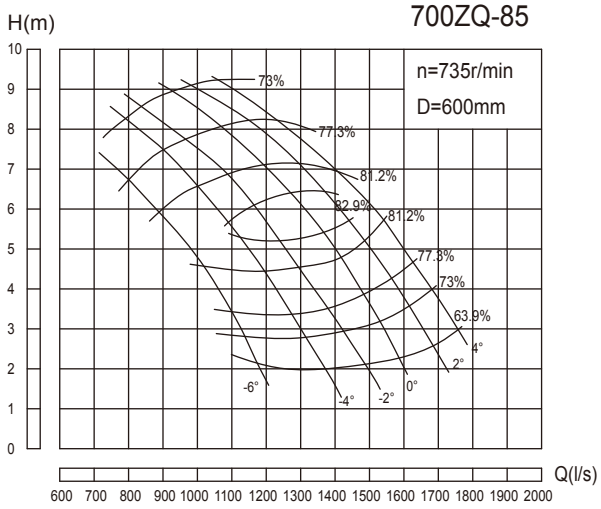
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	5255.6	1459.9	3.85		70.4		78.3	
-6°	4671.7	1297.7	6.78		104.9	132	82.3	
	3868.6	1074.6	8.74		120.8		76.3	
	5620.3	1561.2	3.96		77.5		78.3	
-4°	4788.4	1330.1	7.19		112.4	160	83.5	
	4014.7	1115.2	9.13		130.9		76.3	
	5912.3	1642.3	4.11		84.6		78.3	
-2°	5036.4	1399	7.5		123	160	83.7	
	4102.2	1139.5	9.25		135.5		76.3	
	6204.2	1723.4	4.42	735	95.4		78.3	600
0°	5240.9	1455.8	7.83		131.9	160	84.8	
	4204.4	1167.9	9.56		143.6		76.3	
	6423.5	1784.3	4.62		103.3		78.3	
+2°	5372.3	1492.3	7.91		135.9	160	85.2	
	4248.4	1180.1	9.66		146.6		76.3	
	6744.6	1873.5	5.04		118.3		78.3	
+4°	5576.8	1549.1	8.43		152	185	84.3	
	4510.8	1253	9.87		159		76.3	



700ZQ-70D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	4218.8	1171.9	2.48		36.7		77.6	
-6°	3750.1	1041.7	4.37		54.7	75	81.6	
	3105.4	862.6	5.63		63		75.6	
	4511.5	1253.2	2.55		40.4		77.6	
-4°	3843.7	1067.7	4.64		58.7	75	82.8	
	3222.7	895.2	5.88		68.3		75.6	
	4745.9	1318.3	2.65		44.2		77.6	
-2°	4042.8	1123	4.83		64.1	75	83	
	3292.9	914.7	5.96		70.7		75.6	
	4980.2	1383.4	2.85	590	49.8		77.6	600
0°	4207	1168.6	5.05		68.8	90	84.1	
	3375	937.5	6.16		74.9		75.6	
	5156.3	1432.3	2.98		54		77.6	
+2°	4312.4	1197.9	5.1		70.9	90	84.5	
	3410.3	947.3	6.23		76.6		75.6	
	5414	1503.9	3.25		61.8		77.6	
+4°	4476.6	1243.5	5.43		79.2	90	83.6	
	3620.9	1005.8	6.36		83		75.6	

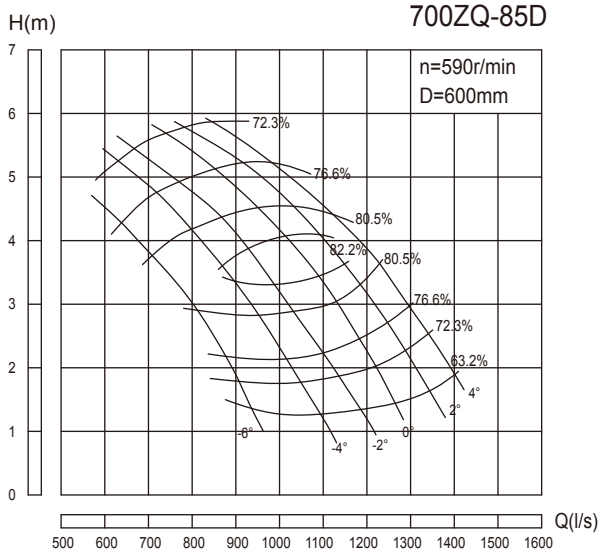
700ZQ-85



700ZQ-85 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3956.4	1099	2.87		42.3		73.1	
-6°	3620.5	1005.7	4.36		52.4	75	82.1	
	2554.9	709.7	7.35		70		73.1	
	4583.9	1273.3	2.77		47.3		73.1	
-4°	3912.5	1086.8	5.34		68.5	90	83.1	
	2803	778.6	7.8		81.5		73.1	
	5153.4	1431.5	2.87		55.1		73.1	
-2°	4452.5	1236.8	5.24		76.5	110	83.1	
	3080.2	855.6	8.17		93.8		73.1	
	5547.6	1541	3.13	735	64.7		73.1	600
0°	4875.8	1354.4	5.44		85.9	110	84.1	
	3386.9	940.8	8.48		107.1		73.1	
	5927	1646.4	3.6		79.5		73.1	
+2°	5211.7	1447.7	5.81		99.3	132	83.1	
	3693.6	1026	8.73		120.2		73.1	
	6306.5	1751.8	4.04		95		73.1	
+4°	5328.4	1480.1	6.57		116.2	160	82.1	
	4029.1	1119.2	8.72		131		73.1	

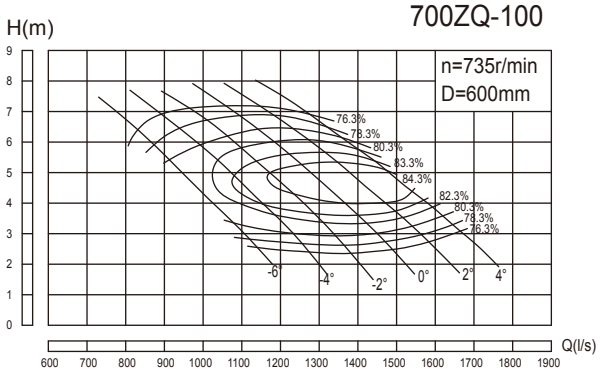
700ZQ-85D



700ZQ-85D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3175.9	882.2	1.85		22.1		72.4	
-6°	2906.3	807.3	2.81		27.3	45	81.4	
	2050.9	569.7	4.74		36.6		72.4	
	3679.6	1022.1	1.79		24.8		72.4	
-4°	3140.6	872.4	3.44		35.7	45	82.4	
	2250	625	5.03		42.6		72.4	
	4136.8	1149.1	1.85		28.8		72.4	
-2°	3574.1	992.8	3.38		40	55	82.4	
	2472.5	686.8	5.26		48.9		72.4	
	4453.2	1237	2.02	590	33.9		72.4	600
0°	3913.9	1087.2	3.5		44.8	75	83.4	
	2718.7	755.2	5.46		55.9		72.4	
	4757.8	1321.6	2.32		41.5		72.4	
+2°	4183.6	1162.1	3.74		51.7	75	82.4	
	2965	823.6	5.62		62.7		72.4	
	5062.3	1406.2	2.6		49.5		72.4	
+4°	4277.2	1188.1	4.23		60.6	75	81.4	
	3234.2	898.4	5.62		68.4		72.4	

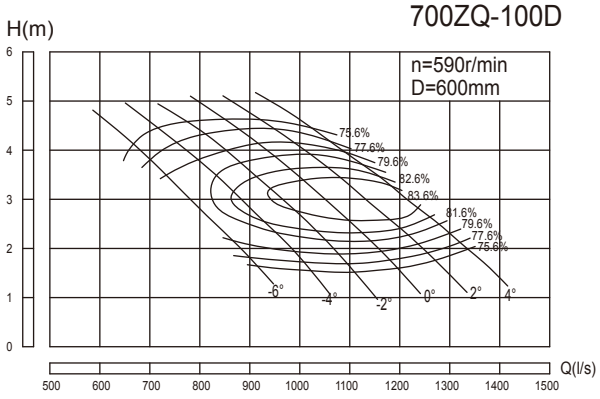
700ZQ-100



700ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3883.3	1078.7	3.29		43.4		80.3	
-6°	3649.7	1013.8	4.14		50.3	75	81.9	
	3284.6	912.4	5.45		60.7		80.3	
	4438.1	1232.8	3.01		45.3		80.3	
-4°	4087.4	1135.4	4.21		56.2	75	83.4	
	3569.4	991.5	5.91		71.6		80.3	
	4832.3	1342.3	2.93		48		80.3	
-2°	4452.5	1236.8	4.33		62.5	90	84	
	3825	1062.5	6.2		80.5		80.3	
	5211.7	1447.7	3.02	735	53.4		80.3	600
0°	4817.5	1338.2	4.32		67.3	110	84.3	
	4109.4	1141.5	6.42		89.5		80.3	
	5547.6	1541	3.26		61.4		80.3	
+2°	5109.5	1419.3	4.55		74.7	110	84.8	
	4438.1	1232.8	6.44		97		80.3	
	5839.6	1622.1	3.58		70.9		80.3	
+4°	5474.5	1520.7	4.57		80.7	110	84.5	
	4890.6	1358.5	6.17		102.4		80.3	

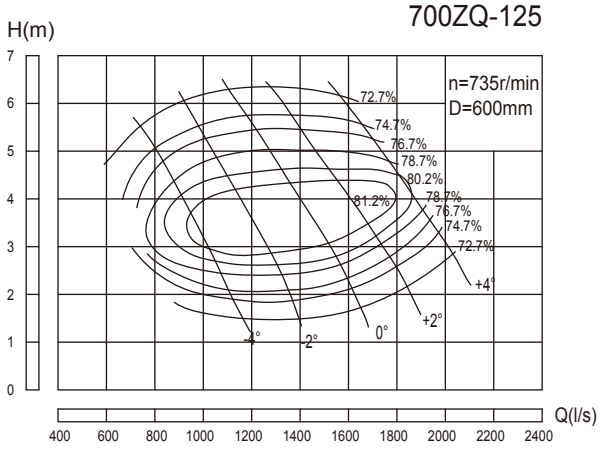
700ZQ-100D



700ZQ-100D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3117.2	865.9	2.12		22.6		79.6	
-6°	2929.7	813.8	2.67		26.3	37	81.2	
	2636.6	732.4	3.51		31.7		79.6	
	3562.6	989.6	1.94		23.7		79.6	
-4°	3281	911.4	2.72		29.4	45	82.7	
	2865.2	795.9	3.81		37.4		79.6	
	3879	1077.5	1.89		25.1		79.6	
-2°	3574.1	992.8	2.79		32.6	45	83.3	
	3070.4	852.9	3.99		41.9		79.6	
	4183.6	1162.1	1.95	590	27.9		79.6	600
0°	3867.1	1074.2	2.78		35	55	83.6	
	3298.7	916.3	4.14		46.8		79.6	
	4453.2	1237	2.1		32		79.6	
+2°	4101.5	1139.3	2.93		38.9	55	84.1	
	3562.6	989.6	4.15		50.6		79.6	
	4687.6	1302.1	2.3		36.9		79.6	
+4°	4394.5	1220.7	2.95		42.2	55	83.8	
	3925.8	1090.5	3.97		53.4		79.6	

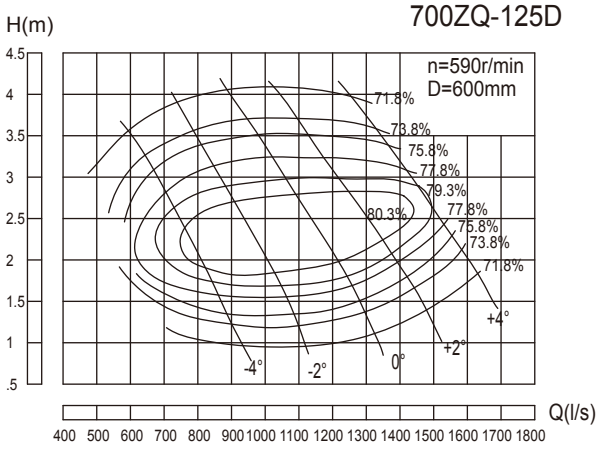
700ZQ-125



700ZQ-125 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3970.8	1103	2.1		29.6		76.7	
-4°	3620.5	1005.7	3.11		37.8	55	81.2	
	2890.4	802.9	5.07		53.5		74.7	
	4861.4	1350.4	2.09		36.1		76.7	
-2°	4481.6	1244.9	3.23		48.3	75	81.6	
	3533	981.4	5.49		70.8		74.7	
	5737.3	1593.7	2.34		47.7		76.7	
0°	5284.8	1468	3.56	735	62.4	110	82.2	600
	4248.4	1180.1	5.76		89.3		74.7	
	6379.6	1772.1	2.77		62.8		76.7	
+2°	5868.7	1630.2	3.68		72.1	110	81.6	
	4919.8	1366.6	5.76		103.4		74.7	
	6963.5	1934.3	3.56		88.1		76.7	
+4°	6671.5	1853.2	4.07		91.9	132	80.5	
	5956.2	1654.5	5.56		120.8		74.7	

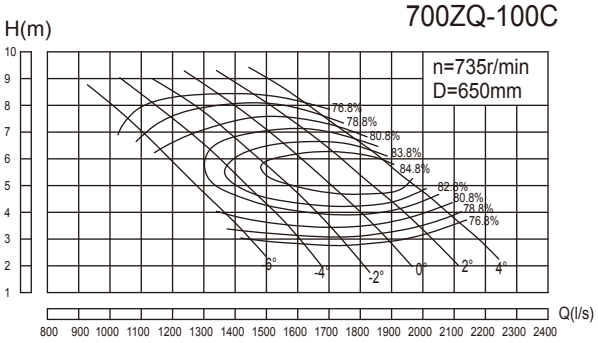
700ZQ-125D



700ZQ-125D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3187.4	885.4	1.35		15.4		75.9	
-4°	2906.3	807.3	2.01		19.8	30	80.4	
	2320.2	644.5	3.26		27.9		73.9	
	3902.4	1084	1.34		18.8		75.9	
-2°	3597.5	999.3	2.08		25.2	45	80.8	
	2836.1	787.8	3.54		37		73.9	
	4605.5	1279.3	1.51		25		75.9	
0°	4242.2	1178.4	2.29	590	32.5	55	81.4	600
	3410.3	947.3	3.71		46.7		73.9	
	5121	1422.5	1.79		32.9		75.9	
+2°	4711	1308.6	2.37		37.7	75	80.8	
	3949.2	1097	3.71		54		73.9	
	5589.7	1552.7	2.29		46		75.9	
+4°	5355.4	1487.6	2.62		48	75	79.7	
	4781.2	1328.1	3.58		63.1		73.9	

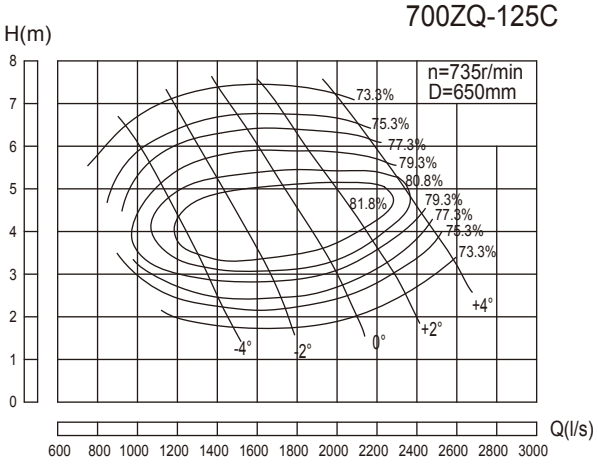
700ZQ-100C



700ZQ-100C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	4937	1371.4	3.86	735	64.3	110	80.8	650
	4640	1288.9	4.86		74.6		82.4	
	4176.4	1160.1	6.39		90		80.8	
-4°	5642.6	1567.4	3.53		67.2	110	80.8	
	5197	1443.6	4.95		83.6		83.9	
	4538.2	1260.6	6.94		106.2		80.8	
-2°	6143.8	1706.6	3.44		71.3	132	80.8	
	5661	1572.5	5.08		92.7		84.5	
	4862.9	1350.8	7.27		119.2		80.8	
0°	6626.2	1840.6	3.55		79.3	160	80.8	
	6125	1701.4	5.07		99.8		84.8	
	5225	1451.4	7.54		132.9		80.8	
+2°	7053.1	1959.2	3.82		90.9	160	80.8	
	6496.2	1804.5	5.34		110.8		85.3	
	5642.6	1567.4	7.56		143.9		80.8	
+4°	7424.3	2062.3	4.2		105.2	160	80.8	
	6960.2	1933.4	5.37		119.8		85	
	6217.9	1727.2	7.24		151.8		80.8	

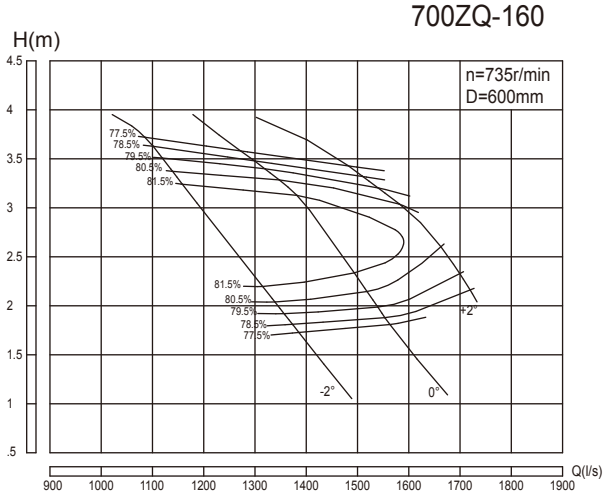
700ZQ-125C



700ZQ-125C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	5048.6	1402.4	2.46	735	43.8	90	77.3	650
	4603	1278.6	3.65		56		81.8	
	3674.9	1020.8	5.95		79.1		75.3	
-2°	6180.8	1716.9	2.45		53.4	110	77.3	
	5698.1	1582.8	3.79		71.6		82.2	
	4491.7	1247.7	6.44		104.7		75.3	
0°	7294.3	2026.2	2.75		70.7	160	77.3	
	6719	1866.4	4.17		92.2		82.8	
	5401.1	1500.3	6.75		131.9		75.3	
+2°	8111.2	2253.1	3.26		93.2	160	77.3	
	7461.4	2072.6	4.32		106.9		82.2	
	6255	1737.5	6.75		152.8		75.3	
+4°	8853.5	2459.3	4.17		130.1	185	77.3	
	8482.3	2356.2	4.78		136.2		81.1	
	7573	2103.6	6.53		179		75.3	

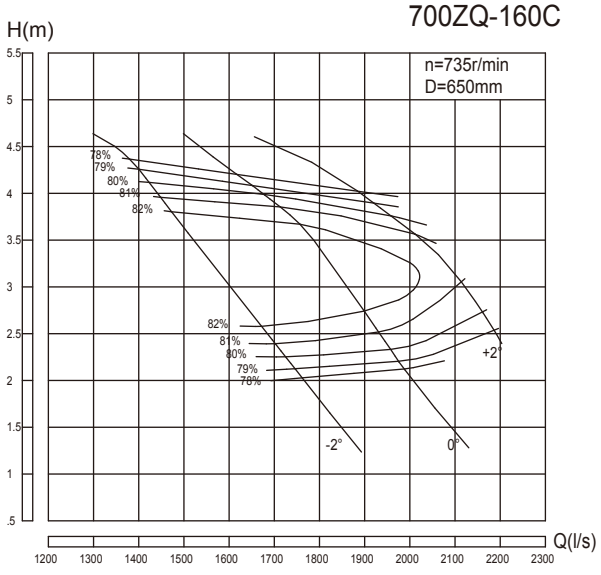
700ZQ-160



700ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	4943.5	1373.2	1.81	735	31	55	78.6	600
	4525.6	1257.1	2.56		38		83.1	
	3963.2	1100.9	3.63		49.9		78.6	
0°	5587.2	1552	1.87		36.2	75	78.6	
	5255.6	1459.9	2.57		44.8		82.1	
	4681.4	1300.4	3.47		56.3		78.6	
+2°	6191.3	1719.8	2.16		46.4	75	78.6	
	5868.7	1630.2	2.77		55		80.6	
	5437.1	1510.3	3.32		62.6		78.6	

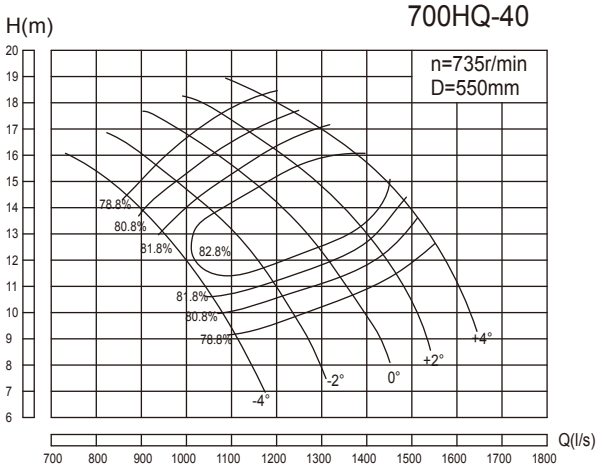
700ZQ-160C



700ZQ-160C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	6285.6	1746	2.12	735	45.9	90	79.1	650
	5753.9	1598.3	3		56.3		83.6	
	5038.9	1399.7	4.26		73.9		79.1	
0°	7103.9	1973.3	2.2		53.8	90	79.1	
	6682	1856.1	3.02		66.6		82.6	
	5952.2	1653.4	4.08		83.7		79.1	
+2°	7871.8	2186.6	2.53		68.6	110	79.1	
	7461.4	2072.6	3.26		81.7		81.1	
	6912.7	1920.2	3.9		92.9		79.1	

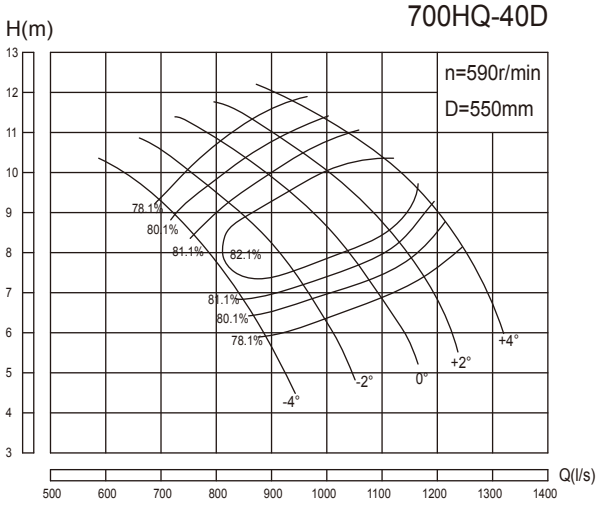
700HQ-40



700HQ-40 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3991.7	1108.8	9.18		126.7		78.8	
-4°	3654.4	1015.1	11.79		142.1	185	82.6	
	3137.4	871.5	14.6		158.4		78.8	
	4475.5	1243.2	9.9		153.2		78.8	
-2°	4048.2	1124.5	12.78		170.3	200	82.8	
	3373.6	937.1	15.74		183.6		78.8	
	4914	1365	10.68		181.5		78.8	
0°	4385.5	1218.2	13.9	735	199.9	220	83.1	550
	3632	1008.9	16.9		212.3		78.8	
	5273.6	1464.9	11.56		210.8		78.8	
+2°	4722.8	1311.9	14.68		225.5	250	83.8	
	3879.4	1077.6	17.75		238.1		78.8	
	5588.6	1552.4	12.74		246.2		78.8	
+4°	5060.2	1405.6	15.72		260.2	280	83.3	
	4216.7	1171.3	18.46		269.2		78.8	

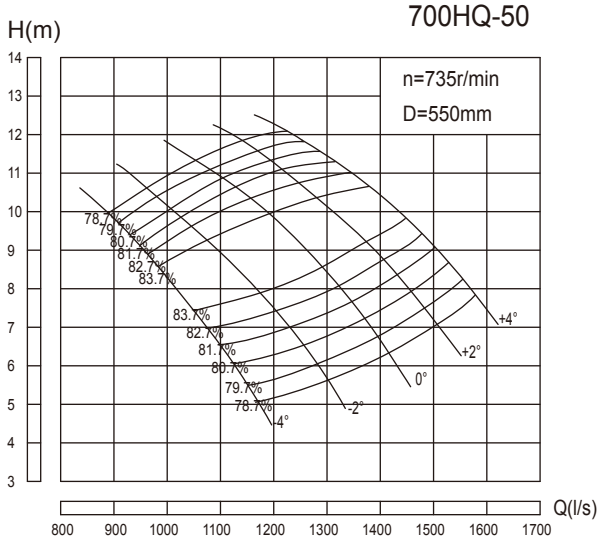
700HQ-40D



Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3204.4	890.1	5.92		66.2		78.1	
-4°	2933.6	814.9	7.6		74.2	90	81.9	
	2518.2	699.5	9.4		82.6		78.1	
	3592.4	997.9	6.38		80		78.1	
-2°	3249.4	902.6	8.24		88.9	110	82.1	
	2707.9	752.2	10.14		95.8		78.1	
	3944.5	1095.7	6.88		94.7		78.1	
0°	3520.4	977.9	8.96	590	104.3	132	82.4	550
	2915.6	809.9	10.89		110.8		78.1	
	4233.2	1175.9	7.45		110		78.1	
+2°	3791.2	1053.1	9.46		117.6	132	83.1	
	3114	865	11.44		124.3		78.1	
	4486	1246.1	8.21		128.5		78.1	
+4°	4061.9	1128.3	10.13		135.7	160	82.6	
	3384.7	940.2	11.9		140.5		78.1	

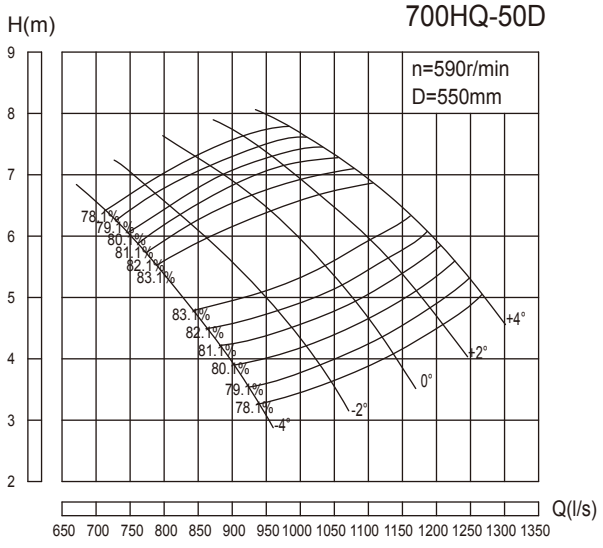
700HQ-50



700HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	4149.4	1152.6	5.48		77.6		79.8	
-4°	3598.2	999.5	8.38		98.1	110	83.8	
	3249.7	902.7	9.72		107.9		79.8	
	4610.2	1280.6	6.05		95.2		79.8	
-2°	3935.5	1093.2	9.07		115.9	132	83.9	
	3530.9	980.8	10.36		124.9		79.8	
	5026.3	1396.2	6.74		115.7		79.8	
0°	4385.5	1218.2	9.5	735	135.5	160	83.8	550
	3890.5	1080.7	11.1		147.5		79.8	
	5341.3	1483.7	7.51		137		79.8	
+2°	4610.2	1280.6	10.36		155.3	185	83.8	
	4227.8	1174.4	11.57		167		79.8	
	5599.8	1555.5	8.2		156.8		79.8	
+4°	4947.5	1374.3	10.71		172.3	200	83.8	
	4520.5	1255.7	11.83		182.6		79.8	

700HQ-50D



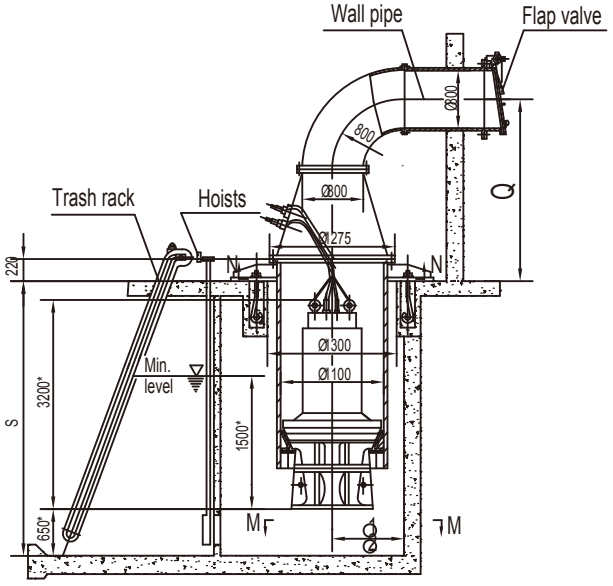
700HQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	3330.7	925.2	3.53		40.5		79.1	
-4°	2888.3	802.3	5.4		51.1	75	83.1	
	2608.6	724.6	6.26		56.3		79.1	
	3700.8	1028	3.9		49.7		79.1	
-2°	3159.4	877.6	5.84		60.4	75	83.2	
	2834.3	787.3	6.68		65.2		79.1	
	4034.9	1120.8	4.34		60.3		79.1	
0°	3520.4	977.9	6.12	590	70.7	90	83.1	550
	3123	867.5	7.15		76.9		79.1	
	4287.6	1191	4.84		71.5		79.1	
+2°	3700.8	1028	6.68		81.1	90	83.1	
	3393.7	942.7	7.46		87.2		79.1	
	4495	1248.6	5.29		81.9		79.1	
+4°	3971.5	1103.2	6.9		89.9	110	83.1	
	3628.4	1007.9	7.62		95.2		79.1	

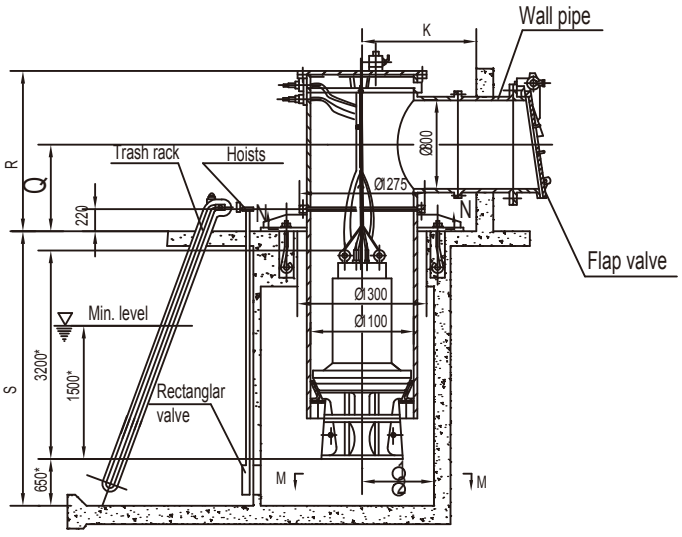
700ZQ-50,700ZQ-70,700ZQ-85,700ZQ-100,700ZQ-125,700ZQ-160
700ZQ-50D,700ZQ-70D,700ZQ-85D,700ZQ-100D,700ZQ-125D
700ZQ-100C,700ZQ-125C,700ZQ-160C
700HQ-40,700HQ-40D,700HQ-50,700HQ-50D

Outside installation dimensions drawing

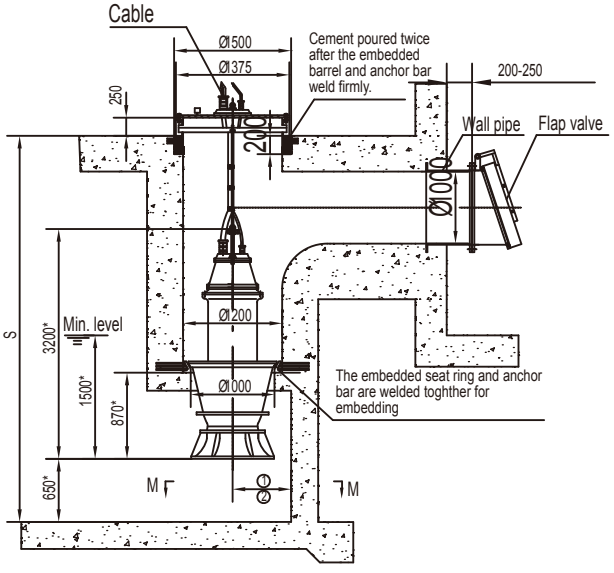
1. Suspension installation with bent pipe

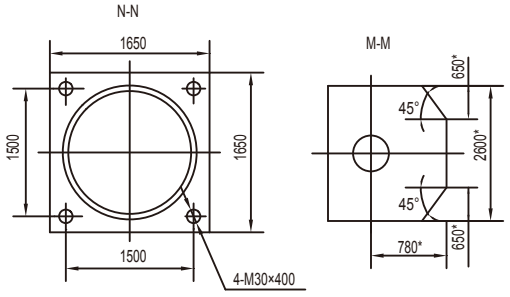


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





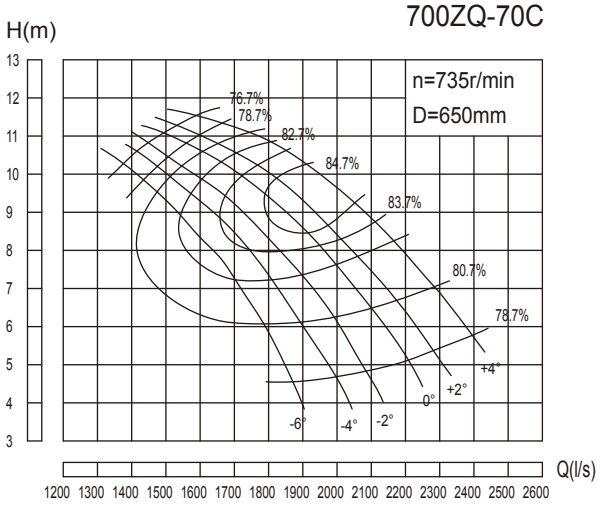
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

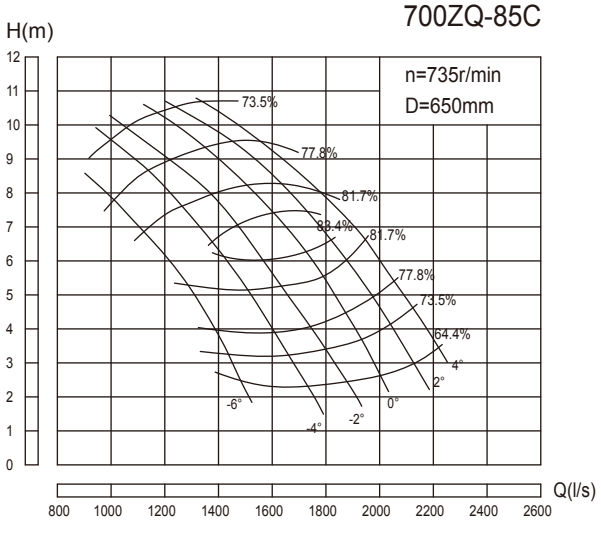
700ZQ-70C



700ZQ-70C Performance parameter list

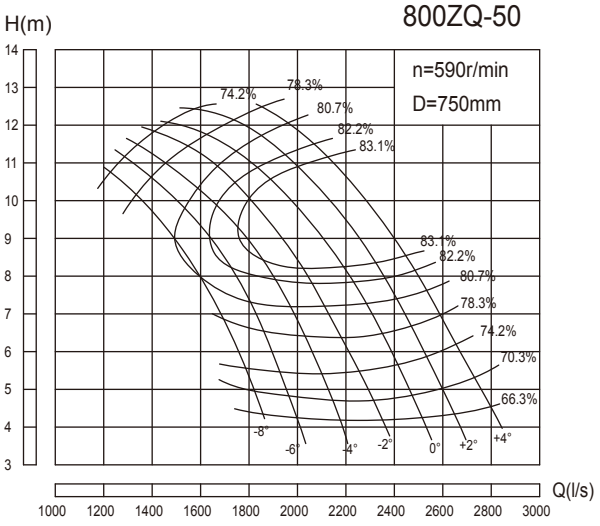
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	6682	1856.1	4.52		104.6		78.7	
-6°	5939.6	1649.9	7.96		155.8	185	82.7	
	4918.7	1366.3	10.25		179.1		76.7	
	7146	1985	4.64		114.8		78.7	
-4°	6088	1691.1	8.44		166.9	200	83.9	
	5104.1	1417.8	10.71		194.2		76.7	
	7517.2	2088.1	4.82		125.5		78.7	
-2°	6403.3	1778.7	8.81		182.8	220	84.1	
	5215.7	1448.8	10.86		201.2		76.7	
	7888.3	2191.2	5.19	735	141.8		78.7	650
0°	6663.2	1850.9	9.19		195.9	220	85.2	
	5345.6	1484.9	11.22		213.1		76.7	
	8166.6	2268.5	5.43		153.5		78.7	
+2°	6830.3	1897.3	9.29		202	250	85.6	
	5401.1	1500.3	11.34		217.6		76.7	
	8575.2	2382	5.91		175.5		78.7	
+4°	7090.2	1969.5	9.89		225.6	250	84.7	
	5735.2	1593.1	11.58		236		76.7	

700ZQ-85C



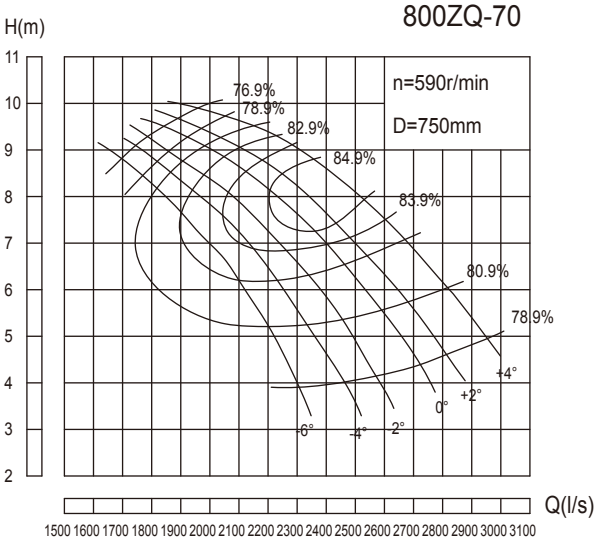
700ZQ-85C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	5029.9	1397.2	3.37		62.8		73.6	
-6°	4603	1278.6	5.11		77.6	110	82.6	
	3248.3	902.3	8.62		103.7		73.6	
	5828	1618.9	3.26		70.3		73.6	
-4°	4974.5	1381.8	6.27		101.7	132	83.6	
	3563.6	989.9	9.16		120.9		73.6	
	6552	1820	3.37		81.8		73.6	
-2°	5661	1572.5	6.15		113.5	160	83.6	
	3916.4	1087.9	9.59		139.1		73.6	
	7053.1	1959.2	3.68	735	96.1		73.6	650
0°	6199.2	1722	6.38		127.4	185	84.6	
	4306	1196.1	9.95		158.6		73.6	
	7535.9	2093.3	4.22		117.7		73.6	
+2°	6626.2	1840.6	6.82		147.3	185	83.6	
	4695.8	1304.4	10.24		178		73.6	
	8018.3	2227.3	4.74		140.7		73.6	
+4°	6774.8	1881.9	7.71		172.3	200	82.6	
	5122.8	1423	10.23		194		73.6	



800ZQ-50 Performance parameter list

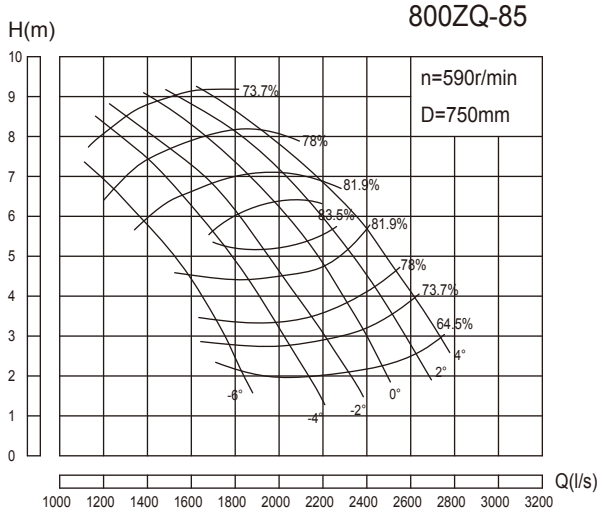
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	6997.7	1943.8	4.83		130.8		70.4	
-6°	5904.7	1640.2	8.83		172	200	82.6	
	4675	1298.6	11.12		188.1		75.3	
	7599.2	2110.9	4.74		139.4		70.4	
-4°	6419.9	1783.3	9.1		190	220	83.8	
	4824	1340	11.64		203.2		75.3	
	8203.7	2278.8	4.74		150.5		70.4	
-2°	6613.6	1837.1	9.37		201.5	250	83.8	
	5062.3	1406.2	11.96	590	219.1		75.3	750
	8858.9	2460.8	4.97		170.4		70.4	
0°	7346.2	2040.6	9.41		224.3	250	84	
	5866.2	1629.5	11.8		240.6		78.4	
	9394.9	2609.7	5.08		184.7		70.4	
+2°	7733.2	2148.1	9.65		242.7	280	83.8	
	6313	1753.6	12.19		267.5		78.4	
	9752	2708.9	5.51		208		70.4	
+4°	8132	2258.9	9.92		262.3	315	83.8	
	6610.7	1836.3	12.42		285.4		78.4	



800ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	8239.7	2288.8	3.88		110.4		78.9	
-6°	7324.2	2034.5	6.83		164.4	200	82.9	
	6065.3	1684.8	8.8		189.1		76.9	
	8811.7	2447.7	3.98		121.1		78.9	
-4°	7507.1	2085.3	7.24		176.1	220	84.1	
	6294.2	1748.4	9.19		205		76.9	
	9269.6	2574.9	4.14		132.5		78.9	
-2°	7896.2	2193.4	7.55		192.7	220	84.3	
	6431.4	1786.5	9.31		212.2		76.9	
	9727.2	2702	4.45	590	149.5		78.9	750
0°	8216.6	2282.4	7.89		206.9	250	85.4	
	6591.6	1831	9.62		224.7		76.9	
	10070.6	2797.4	4.66		162.1		78.9	
+2°	8422.9	2339.7	7.97		213.2	250	85.8	
	6660.4	1850.1	9.73		229.6		76.9	
	10574.3	2937.3	5.07		185.2		78.9	
+4°	8743.3	2428.7	8.49		238.3	280	84.9	
	7072.2	1964.5	9.93		248.9		76.9	

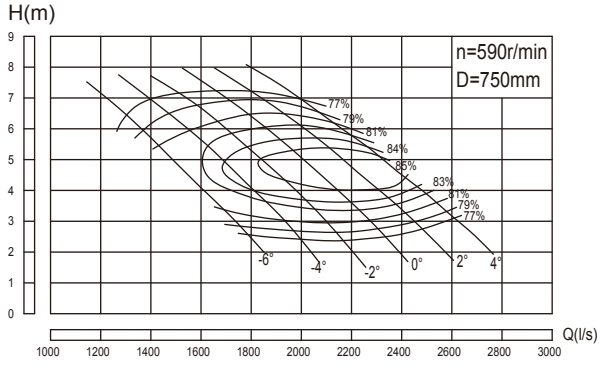
800ZQ-85



800ZQ-85 Performance parameter list

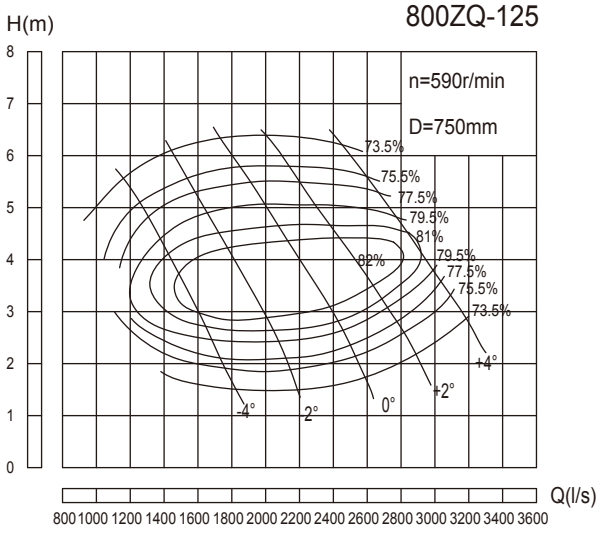
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	6202.8	1723	2.89	590	66.2	132	73.8	750
	5676.1	1576.7	4.39		82		82.8	
	4005.4	1112.6	7.4		109.4		73.8	
-4°	7186.7	1996.3	2.79		74	132	73.8	
	6134	1703.9	5.38		107.3		83.8	
	4394.5	1220.7	7.85		127.4		73.8	
-2°	8079.5	2244.3	2.89		86.2	160	73.8	
	6980.8	1939.1	5.28		119.9		83.8	
	4829.4	1341.5	8.23		146.8		73.8	
0°	8697.2	2415.9	3.16		101.5	185	73.8	
	7644.6	2123.5	5.47		134.4		84.8	
	5310	1475	8.54		167.4		73.8	
+2°	9292.7	2581.3	3.62		124.2	200	73.8	
	8170.9	2269.7	5.85		155.4		83.8	
	5790.6	1608.5	8.79		187.9		73.8	
+4°	9887.8	2746.6	4.07		148.6	220	73.8	
	8354.2	2320.6	6.61		181.7		82.8	
	6316.9	1754.7	8.77		204.6		73.8	

800ZQ-100



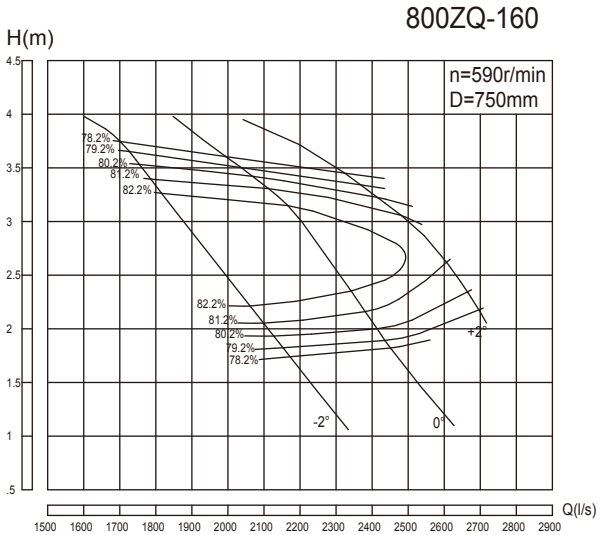
800ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	6088.3	1691.2	3.31	590	67.8	110	81	750
	5721.8	1589.4	4.17		78.7		82.6	
	5149.8	1430.5	5.48		94.9		81	
-4°	6958.1	1932.8	3.03		70.9	132	81	
	6408.7	1780.2	4.24		88		84.1	
	5596.2	1554.5	5.95		112		81	
-2°	7575.8	2104.4	2.95		75.2	132	81	
	6980.8	1939.1	4.36		97.9		84.7	
	5996.5	1665.7	6.24		125.9		81	
0°	8170.9	2269.7	3.04		83.6	160	81	
	7553.2	2098.1	4.35		105.3		85	
	6442.9	1789.7	6.47		140.2		81	
+2°	8697.2	2415.9	3.28		96	160	81	
	8010.7	2225.2	4.58		116.9		85.5	
	6958.1	1932.8	6.49		151.9		81	
+4°	9155.2	2543.1	3.6		110.9	185	81	
	8583.1	2384.2	4.6		126.3		85.2	
	7667.3	2129.8	6.21		160.2		81	



800ZQ-125 Performance parameter list

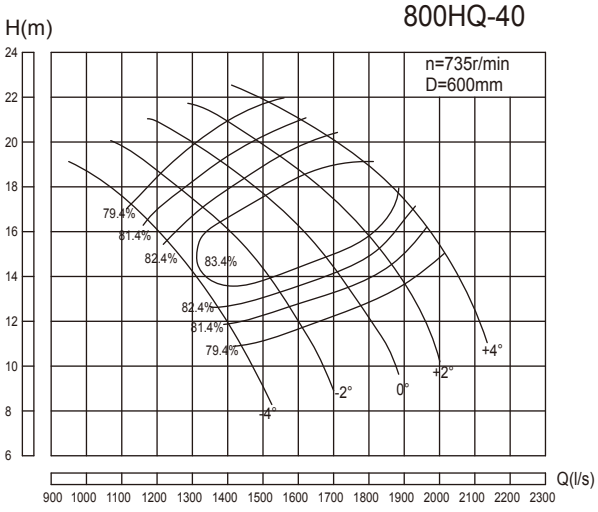
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	6225.5	1729.3	2.11		46.2		77.5	
-4°	5676.1	1576.7	3.14		59.2	90	82	
	4531.7	1258.8	5.1		83.4		75.5	
	7621.6	2117.1	2.1		56.3		77.5	
-2°	7026.5	1951.8	3.25		75.5	132	82.4	
	5539	1538.6	5.53		110.6		75.5	
	8995	2498.6	2.36		74.6		77.5	
0°	8285.4	2301.5	3.58	590	97.4	160	83	750
	6660.4	1850.1	5.79		139.2		75.5	
	10001.9	2778.3	2.79		98.1		77.5	
+2°	9200.9	2555.8	3.7		112.6	185	82.4	
	7713.4	2142.6	5.79		161.2		75.5	
	10917.7	3032.7	3.58		137.4		77.5	
+4°	10459.8	2905.5	4.1		143.7	200	81.3	
	9338.4	2594	5.6		188.7		75.5	



800ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	7750.8	2153	1.82		48.5		79.3	
-2°	7095.2	1970.9	2.58		59.5	90	83.8	
	6213.6	1726	3.65		77.9		79.3	
	8759.9	2433.3	1.88		56.6		79.3	
0°	8239.7	2288.8	2.59	590	70.2	90	82.8	750
	7339.7	2038.8	3.5		88.3		79.3	
	9707	2696.4	2.17		72.4		79.3	
+2°	9200.9	2555.8	2.79		86	110	81.3	
	8524.1	2367.8	3.34		97.8		79.3	

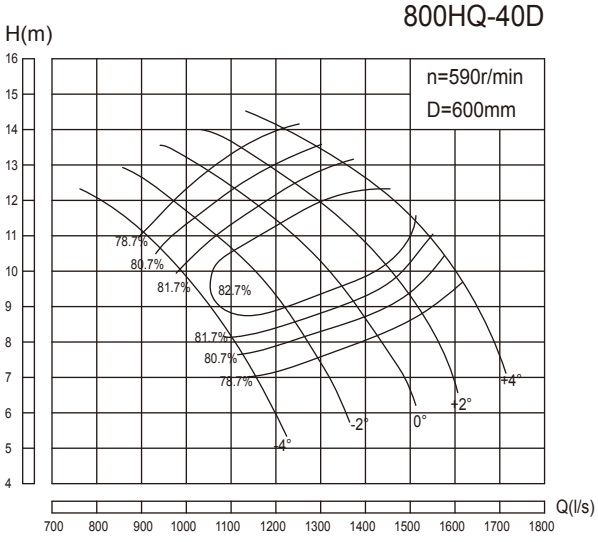
800HQ-40



800HQ-40 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	5182.6	1439.6	10.93	735	194.4	250	79.4	600
	4744.4	1317.9	14.03		218		83.2	
	4073	1131.4	17.37		242.8		79.4	
-2°	5810.4	1614	11.78		234.9	315	79.4	
	5255.6	1459.9	15.21		261.2		83.4	
	4379.8	1216.6	18.74		281.7		79.4	
0°	6379.6	1772.1	12.71		278.3	355	79.4	
	5693.4	1581.5	16.55		306.8		83.7	
	4715.3	1309.8	20.11		325.4		79.4	
+2°	6846.8	1901.9	13.75		323.1	400	79.4	
	6131.5	1703.2	17.47		345.8		84.4	
	5036.4	1399	21.12		365.1		79.4	
+4°	7255.4	2015.4	15.16		377.5	450	79.4	
	6569.3	1824.8	18.71		399.2		83.9	
	5474.5	1520.7	21.97		412.8		79.4	

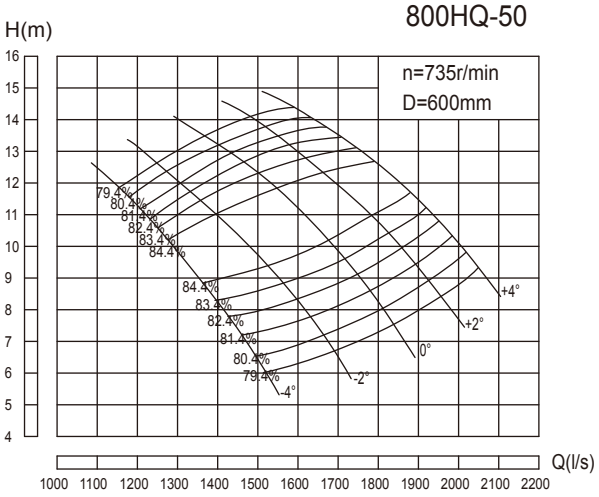
800HQ-40D



800HQ-40D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	4160.2	1155.6	7.04	590	101.4	132	78.7	600
	3808.4	1057.9	9.04		113.7		82.5	
	3269.5	908.2	11.19		126.7		78.7	
-2°	4664.2	1295.6	7.59		122.6	160	78.7	
	4218.8	1171.9	9.8		136.2		82.7	
	3515.8	976.6	12.07		146.9		78.7	
0°	5121	1422.5	8.19		145.2	185	78.7	
	4570.2	1269.5	10.66		159.9		83	
	3785	1051.4	12.96		169.9		78.7	
+2°	5496.1	1526.7	8.86		168.6	200	78.7	
	4921.9	1367.2	11.26		180.4		83.7	
	4042.8	1123	13.61		190.5		78.7	
+4°	5824.1	1617.8	9.77		197	220	78.7	
	5273.3	1464.8	12.05		208.1		83.2	
	4394.5	1220.7	14.16		215.5		78.7	

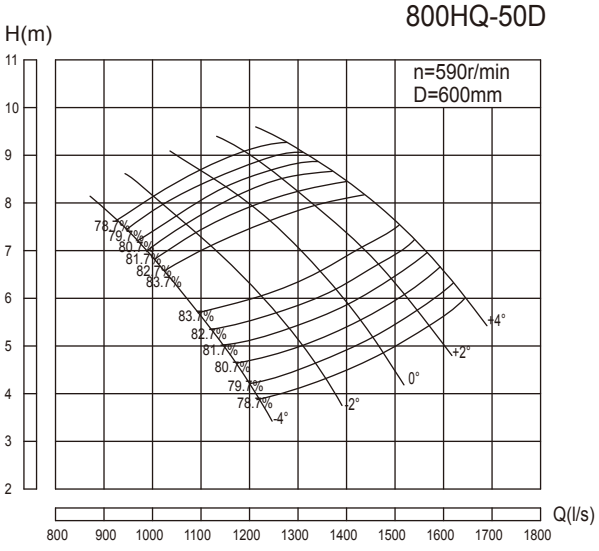
800HQ-50



800HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	5387	1496.4	6.53		119.2		80.4	
-4°	4671.7	1297.7	9.97		150.4	185	84.4	
	4218.8	1171.9	11.56		165.3		80.4	
	5985.4	1662.6	7.19		145.9		80.4	
-2°	5109.5	1419.3	10.79		177.8	200	84.5	
	4583.9	1273.3	12.33		191.6		80.4	
	6525.7	1812.7	8.02		177.4		80.4	
0°	5693.4	1581.5	11.31	735	207.9	250	84.4	600
	5051.2	1403.1	13.21		226.2		80.4	
	6934.3	1926.2	8.94		210.1		80.4	
+2°	5985.4	1662.6	12.33		238.3	280	84.4	
	5488.9	1524.7	13.77		256.2		80.4	
	7270.2	2019.5	9.76		240.5		80.4	
+4°	6423.5	1784.3	12.74		264.2	315	84.4	
	5868.7	1630.2	14.08		280.1		80.4	

800HQ-50D



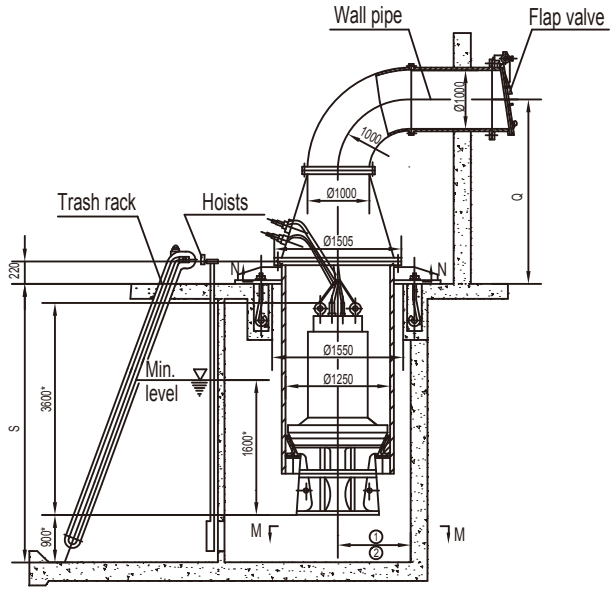
800HQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	4324.3	1201.2	4.21		62.2		79.7	
-4°	3750.1	1041.7	6.42		78.4	90	83.7	
	3386.5	940.7	7.45		86.3		79.7	
	4804.6	1334.6	4.64		76.2		79.7	
-2°	4101.5	1139.3	6.95		92.7	110	83.8	
	3679.6	1022.1	7.95		100		79.7	
	5238.4	1455.1	5.17		92.6		79.7	
0°	4570.2	1269.5	7.28	590	108.3	132	83.7	600
	4054.7	1126.3	8.51		118		79.7	
	5566.3	1546.2	5.76		109.6		79.7	
+2°	4804.6	1334.6	7.95		124.4	160	83.7	
	4406	1223.9	8.87		133.6		79.7	
	5836	1621.1	6.29		125.5		79.7	
+4°	5156.3	1432.3	8.21		137.8	160	83.7	
	4711	1308.6	9.07		146.1		79.7	

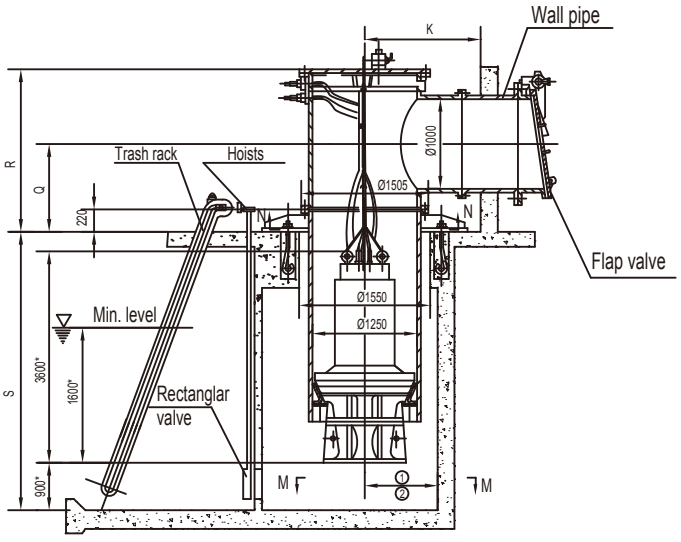
800ZQ-50,800ZQ-70,800ZQ-85,800ZQ-100,800ZQ-125,800ZQ-160
700ZQ-70C,700ZQ-85C,800HQ-40,800HQ-40D,800HQ-50,800HQ-50D

Outside installation dimensions drawing

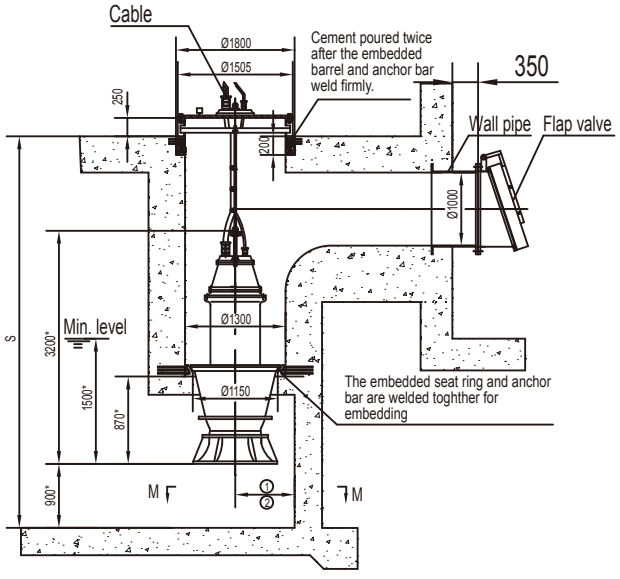
1. Suspension installation with bent pipe

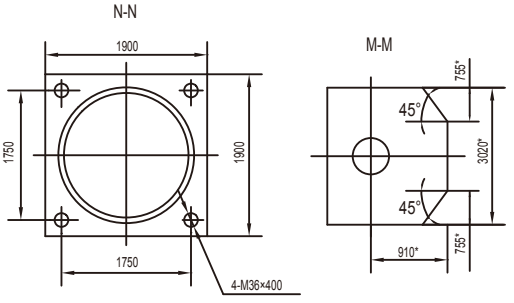


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete



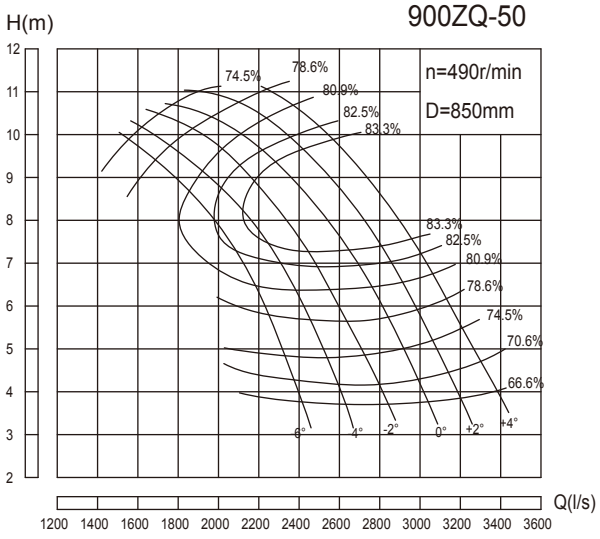


Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

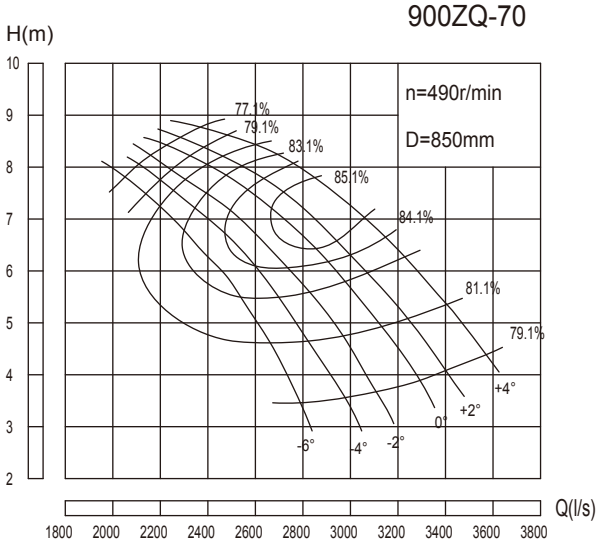
② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference



900ZQ-50 Performance parameter list

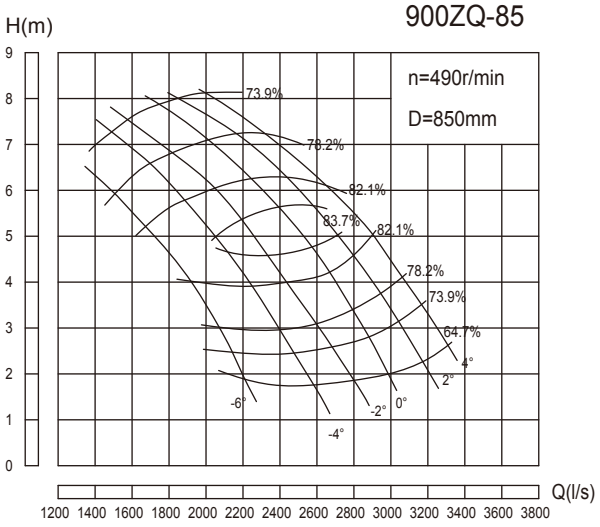
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	8460	2350	4.28	490	139.8	220	70.6	850
	7138.8	1983	7.82		183.7		82.8	
	5652	1570	9.85		200.9		75.5	
-4°	9187.2	2552	4.2		148.9	250	70.6	
	7761.6	2156	8.06		202.9		84	
	5832	1620	10.31		217		75.5	
-2°	9918	2755	4.2		160.8	250	70.6	
	7995.6	2221	8.3		215.3		84	
	6120	1700	10.6		234.1		75.5	
0°	10710	2975	4.4		181.9	280	70.6	
	8881.2	2467	8.34		239.7		84.2	
	7092	1970	10.45		256.9		78.6	
+2°	11358	3155	4.5		197.3	315	70.6	
	9349.2	2597	8.55		259.3		84	
	7632	2120	10.8		285.8		78.6	
+4°	11790	3275	4.88		222.1	315	70.6	
	9831.6	2731	8.79		280.3		84	
	7992	2220	11		304.8		78.6	



900ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	9961.6	2767.1	3.44	490	118.1	220	79.1	850
	8854.6	2459.6	6.05		175.7		83.1	
	7332.8	2036.9	7.79		201.9		77.1	
-4°	10653.5	2959.3	3.53		129.6	250	79.1	
	9076	2521.1	6.42		188.4		84.3	
	7609.7	2113.8	8.14		218.9		77.1	
-2°	11206.8	3113	3.67		141.7	250	79.1	
	9546.5	2651.8	6.69		206		84.5	
	7775.6	2159.9	8.25		226.7		77.1	
0°	11760.1	3266.7	3.94		159.6	250	79.1	
	9933.8	2759.4	6.99		221		85.6	
	7969.3	2213.7	8.53		240.3		77.1	
+2°	12175.2	3382	4.13		173.2	280	79.1	
	10183	2828.6	7.06		227.8		86	
	8052.1	2236.7	8.62		245.3		77.1	
+4°	12784	3551.1	4.49		197.7	280	79.1	
	10570.3	2936.2	7.52		254.5		85.1	
	8550.4	2375.1	8.8		265.9		77.1	

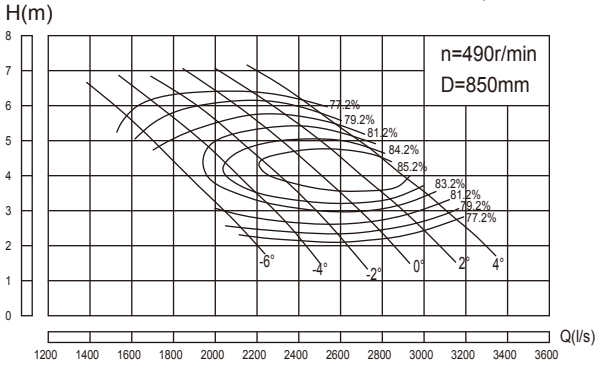
900ZQ-85



900ZQ-85 Performance parameter list

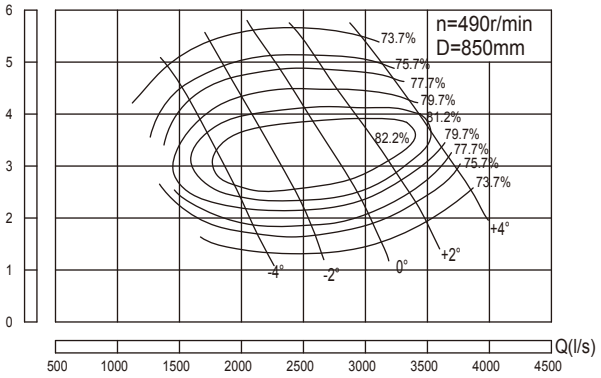
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	7498.8	2083	2.56	490	70.7	132	74	850
	6862.3	1906.2	3.89		87.6		83	
	4842.4	1345.1	6.55		116.8		74	
-4°	8688.6	2413.5	2.48		79.3	160	74	
	7415.6	2059.9	4.77		114.8		84	
	5312.9	1475.8	6.96		136.2		74	
-2°	9767.9	2713.3	2.56		92.1	160	74	
	8439.5	2344.3	4.68		128.1		84	
	5838.5	1621.8	7.29		156.7		74	
0°	10514.9	2920.8	2.8		108.4	185	74	
	9241.9	2567.2	4.85		143.7		85	
	6419.5	1783.2	7.56		178.7		74	
+2°	11234.5	3120.7	3.21		132.8	220	74	
	9878.4	2744	5.18		166		84	
	7000.9	1944.7	7.78		200.6		74	
+4°	11953.8	3320.5	3.6		158.5	250	74	
	10099.8	2805.5	5.86		194.3		83	
	7637	2121.4	7.77		218.5		74	

900ZQ-100



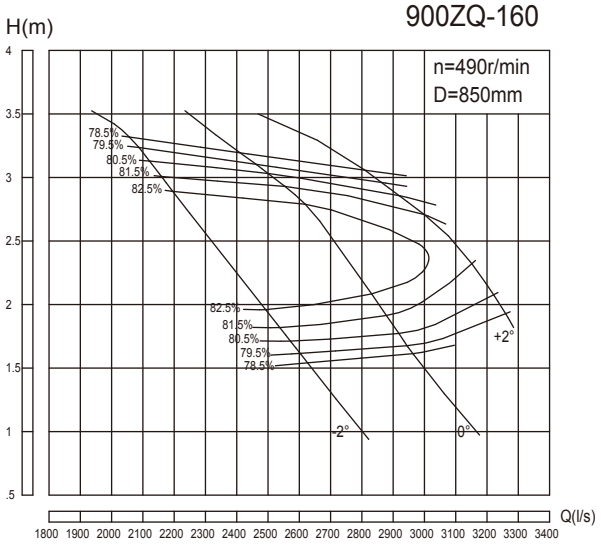
900ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	7360.6	2044.6	2.93	490	72.4	110	81.2	850
	6917.8	1921.6	3.69		84		82.8	
	6225.8	1729.4	4.86		101.5		81.2	
-4°	8412.1	2336.7	2.69		75.9	132	81.2	
	7747.9	2152.2	3.76		94.2		84.3	
	6765.5	1879.3	5.27		119.7		81.2	
-2°	9159.1	2544.2	2.61		80.2	160	81.2	
	8439.5	2344.3	3.86		104.6		84.9	
	7249.7	2013.8	5.53		134.5		81.2	
0°	9878.4	2744	2.7		89.5	160	81.2	
	9131.4	2536.5	3.85		112.4		85.2	
	7789.3	2163.7	5.73		149.8		81.2	
+2°	10514.9	2920.8	2.91		102.7	185	81.2	
	9684.7	2690.2	4.06		125		85.7	
	8412.1	2336.7	5.75		162.3		81.2	
+4°	11068.2	3074.5	3.19		118.5	185	81.2	
	10376.6	2882.4	4.08		135.1		85.4	
	9269.6	2574.9	5.5		171.1		81.2	



900ZQ-125 Performance parameter list

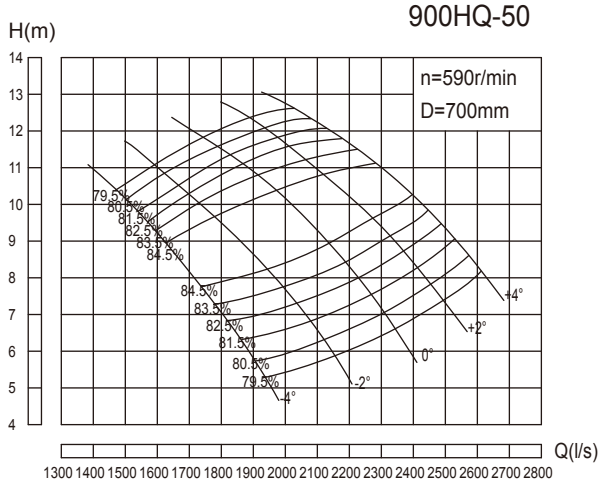
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	7526.5	2090.7	1.87		49.4		77.7	
-4°	6862.3	1906.2	2.78		63.2	110	82.2	
	5478.8	1521.9	4.52		89.1		75.7	
	9214.6	2559.6	1.86		60.1		77.7	
-2°	8494.9	2359.7	2.88		80.7	132	82.6	
	6696.4	1860.1	4.9		118.1		75.7	
	10874.5	3020.7	2.09		79.7		77.7	
0°	10017	2782.5	3.17	490	104	160	83.2	850
	8052.1	2236.7	5.13		148.7		75.7	
	12092	3358.9	2.48		105.2		77.7	
+2°	11123.6	3089.9	3.28		120.4	185	82.6	
	9325.1	2590.3	5.13		172.2		75.7	
	13199	3666.4	3.17		146.7		77.7	
+4°	12645.7	3512.7	3.63		153.5	220	81.5	
	11289.6	3136	4.96		201.6		75.7	



900ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	9370.4	2602.9	1.61		51.7		79.5	
-2°	8578.1	2382.8	2.28		63.4	90	84	
	7512.1	2086.7	3.24		83.4		79.5	
	10590.5	2941.8	1.67		60.6		79.5	
0°	9961.6	2767.1	2.29	490	74.9	110	83	850
	8873.6	2464.9	3.1		94.3		79.5	
	11735.6	3259.9	1.93		77.6		79.5	
+2°	11123.6	3089.9	2.48		92.2	110	81.5	
	10305.4	2862.6	2.96		104.6		79.5	

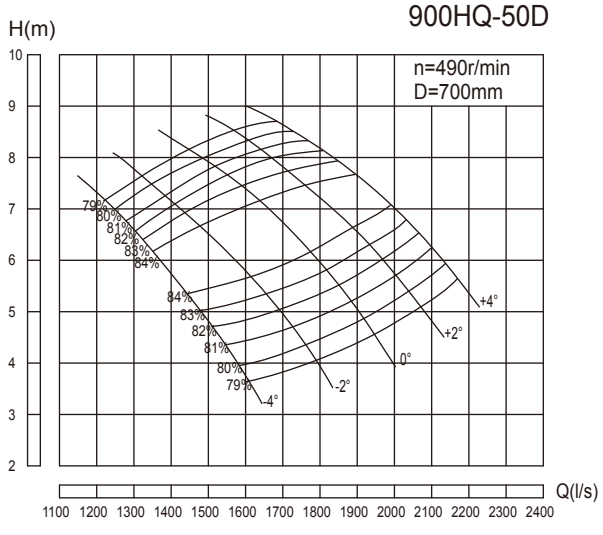
900HQ-50



900HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	6866.6	1907.4	5.72	590	132.8	200	80.6	700
	5954.8	1654.1	8.74		167.6		84.6	
	5378	1493.9	10.14		184.4		80.6	
-2°	7629.5	2119.3	6.31		162.8	220	80.6	
	6513.1	1809.2	9.46		198.2		84.7	
	5843.2	1623.1	10.82		213.8		80.6	
0°	8318.2	2310.6	7.03		197.7	280	80.6	
	7257.2	2015.9	9.92		231.9		84.6	
	6438.6	1788.5	11.58		252.1		80.6	
+2°	8839.1	2455.3	7.84		234.3	315	80.6	
	7629.5	2119.3	10.82		265.9		84.6	
	6997	1943.6	12.08		285.8		80.6	
+4°	9267.1	2574.2	8.56		268.2	355	80.6	
	8187.8	2274.4	11.18		294.9		84.6	
	7480.8	2078	12.35		312.4		80.6	

900HQ-50D



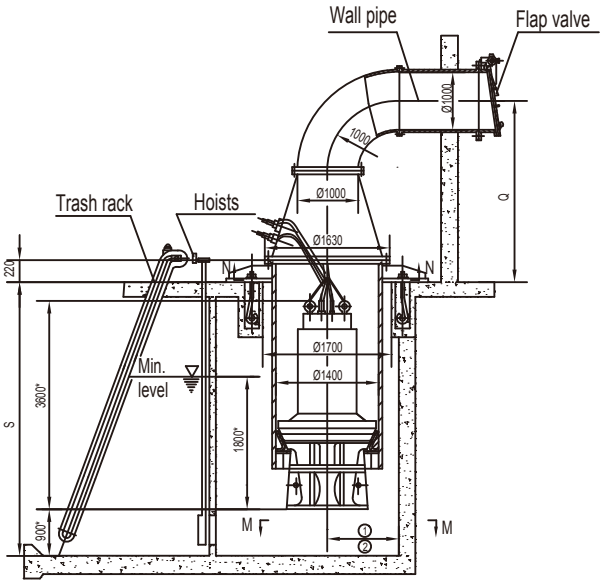
900HQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	5702.8	1584.1	3.95	490	76.6	110	80.1	700
	4945.7	1373.8	6.03		96.6		84.1	
	4466.5	1240.7	6.99		106.2		80.1	
-2°	6336.4	1760.1	4.35		93.8	132	80.1	
	5409	1502.5	6.53		114.3		84.2	
	4852.8	1348	7.46		123.2		80.1	
0°	6908.4	1919	4.85		114	160	80.1	
	6027.5	1674.3	6.84		133.6		84.1	
	5347.4	1485.4	7.99		145.4		80.1	
+2°	7341.1	2039.2	5.41		135.1	185	80.1	
	6336.4	1760.1	7.46		153.2		84.1	
	5811.1	1614.2	8.33		164.7		80.1	
+4°	7696.4	2137.9	5.91		154.7	185	80.1	
	6800	1888.9	7.71		169.9		84.1	
	6212.9	1725.8	8.52		180.1		80.1	

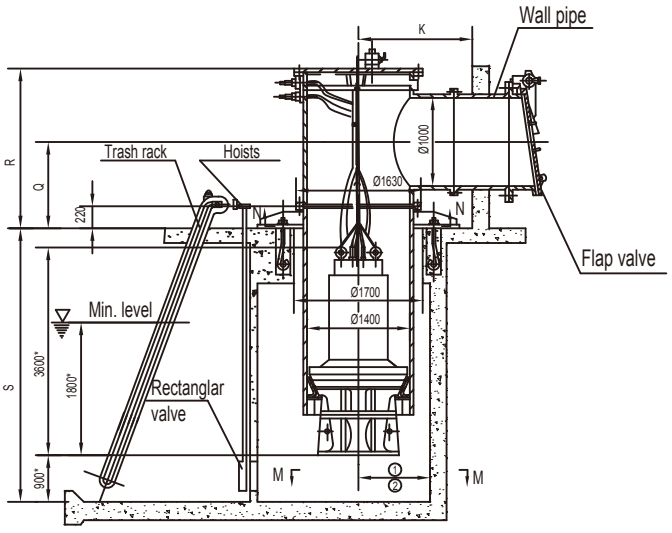
900ZQ-50,900ZQ-70,900ZQ-85,900ZQ-100,900ZQ-125,900ZQ-160, 900HQ-50
900HQ-50D

Outside installation dimensions drawing

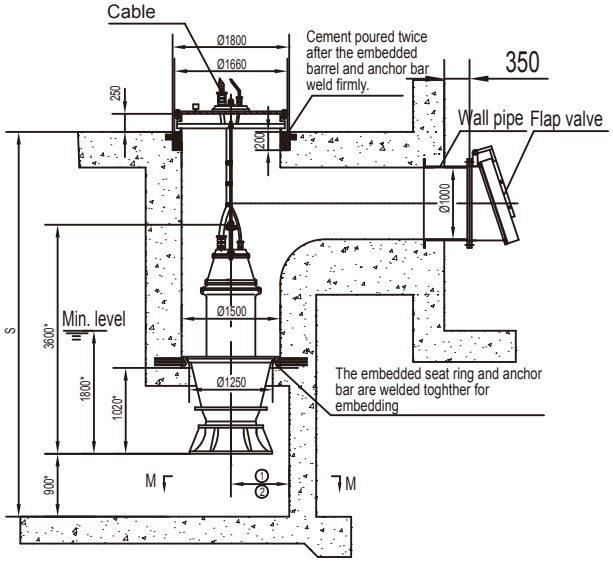
1. Suspension installation with bent pipe

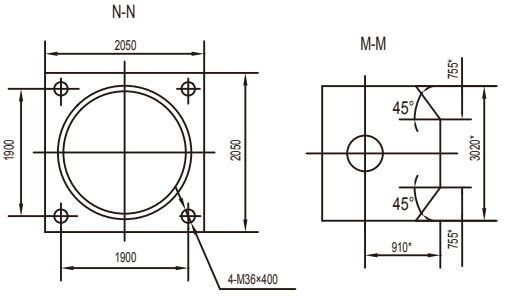


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





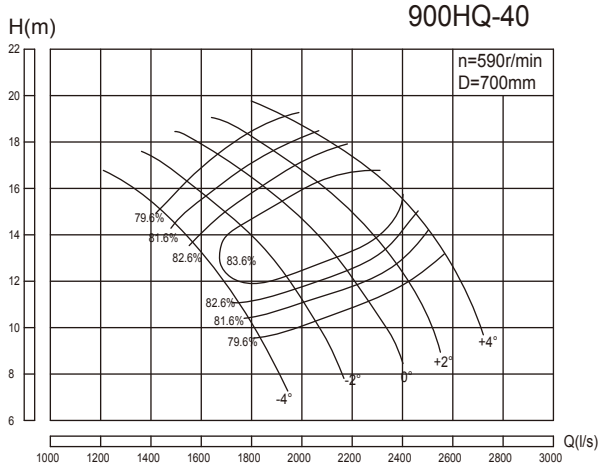
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

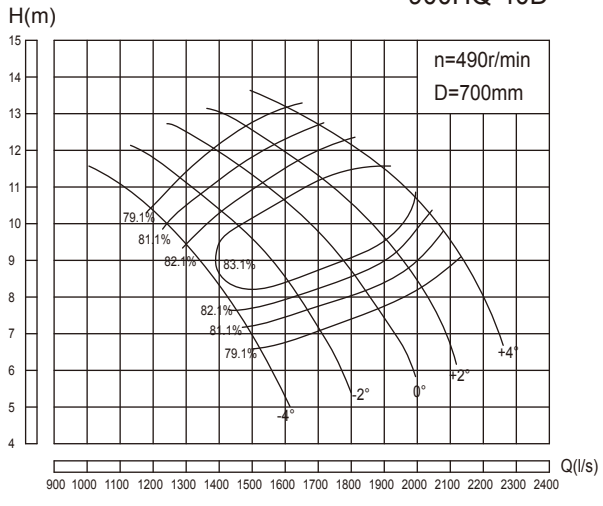
900HQ-40



900HQ-40 Performance parameter list

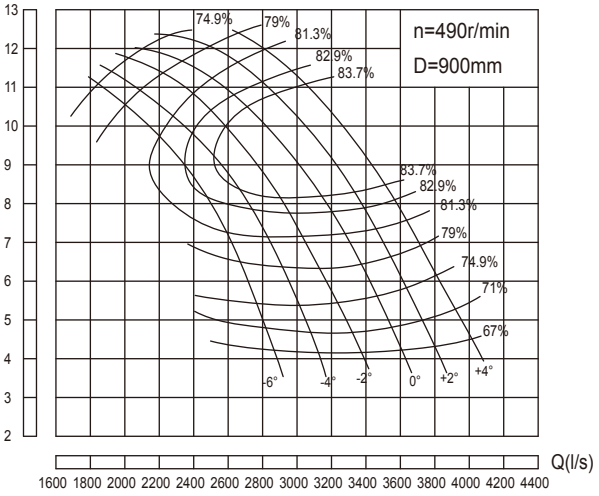
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	6606	1835	9.58	590	216.6	280	79.6	700
	6048	1680	12.3		243.1		83.4	
	5191.9	1442.2	15.23		270.7		79.6	
-2°	7406.3	2057.3	10.33		261.9	355	79.6	
	6699.2	1860.9	13.34		291.3		83.6	
	5582.5	1550.7	16.43		314		79.6	
0°	8132	2258.9	11.15		310.4	400	79.6	
	7257.2	2015.9	14.51		342		83.9	
	6010.6	1669.6	17.64		363		79.6	
+2°	8727.5	2424.3	12.06		360.3	450	79.6	
	7815.6	2171	15.32		385.7		84.6	
	6419.9	1783.3	18.52		407		79.6	
+4°	9248.4	2569	13.3		421.1	500	79.6	
	8374	2326.1	16.41		445.3		84.1	
	6978.2	1938.4	19.27		460.3		79.6	

900HQ-40D



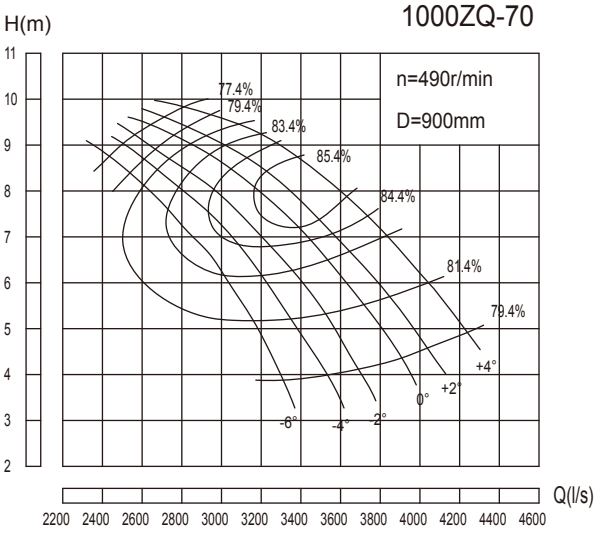
900HQ-40D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	5486.4	1524	6.61	490	124.9	160	79.1	700
	5022.7	1395.2	8.49		140.2		82.9	
	4311.7	1197.7	10.51		156.1		79.1	
-2°	6151	1708.6	7.13		151.1	185	79.1	
	5563.8	1545.5	9.2		167.9		83.1	
	4636.4	1287.9	11.33		181		79.1	
0°	6753.6	1876	7.69		178.9	220	79.1	
	6027.5	1674.3	10.01		197.1		83.4	
	4991.8	1386.6	12.17		209.3		79.1	
+2°	7248.2	2013.4	8.32		207.8	250	79.1	
	6491.2	1803.1	10.57		222.3		84.1	
	5332	1481.1	12.78		234.8		79.1	
+4°	7681	2133.6	9.17		242.6	280	79.1	
	6954.5	1931.8	11.32		256.6		83.6	
	5795.6	1609.9	13.29		265.3		79.1	



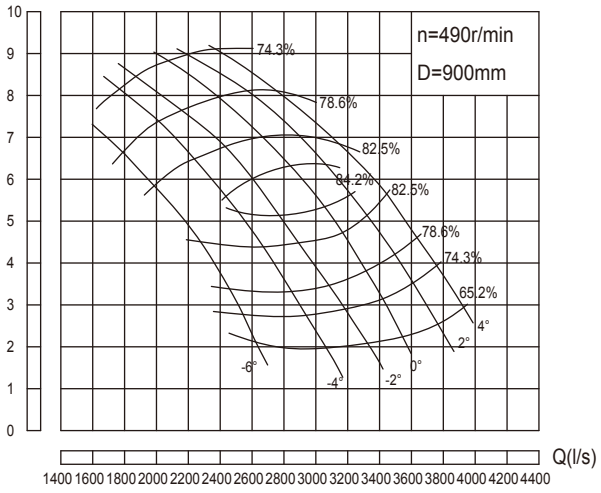
1000ZQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	10042.6	2789.6	4.8	490	185	280	71	900
	8474	2353.9	8.77		243.4		83.2	
	6709.3	1863.7	11.04		265.9		75.9	
-4°	10905.8	3029.4	4.71		197.1	315	71	
	9213.5	2559.3	9.04		268.9		84.4	
	6922.8	1923	11.56		287.3		75.9	
-2°	11773.1	3270.3	4.71		212.8	355	71	
	9491	2636.4	9.31		285.3		84.4	
	7264.8	2018	11.88		309.9		75.9	
0°	12713.4	3531.5	4.93		240.6	355	71	
	10542.6	2928.5	9.35		317.5		84.6	
	8418.6	2338.5	11.72		340.3		79	
+2°	13482.7	3745.2	5.04		260.8	400	71	
	11098.1	3082.8	9.59		343.6		84.4	
	9059.8	2516.6	12.11		378.4		79	
+4°	13995.4	3887.6	5.47		293.8	450	71	
	11670.5	3241.8	9.85		371.1		84.4	
	9487.1	2635.3	12.33		403.5		79	



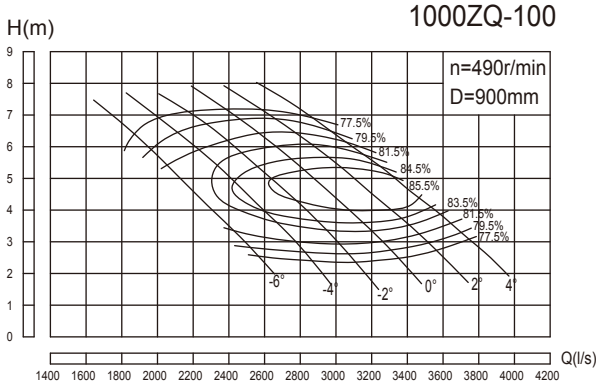
1000ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	11824.9	3284.7	3.85	490	156.2	280	79.4	900
	10510.9	2919.7	6.78		232.8		83.4	
	8704.4	2417.9	8.74		267.8		77.4	
-4°	12646.1	3512.8	3.96		171.9	315	79.4	
	10773.7	2992.7	7.19		249.5		84.6	
	9032.8	2509.1	9.13		290.3		77.4	
-2°	13303.1	3695.3	4.11		187.6	315	79.4	
	11332.1	3147.8	7.5		273.1		84.8	
	9230	2563.9	9.25		300.6		77.4	
0°	13960.1	3877.8	4.42		211.8	355	79.4	
	11792.2	3275.6	7.83		292.9		85.9	
	9460.1	2627.8	9.56		318.4		77.4	
+2°	14452.6	4014.6	4.62		229.2	355	79.4	
	12087.7	3357.7	7.91		301.9		86.3	
	9558.4	2655.1	9.66		325.1		77.4	
+4°	15175.4	4215.4	5.04		262.5	400	79.4	
	12547.4	3485.4	8.43		337.5		85.4	
	10149.8	2819.4	9.87		352.7		77.4	



1000ZQ-85 Performance parameter list

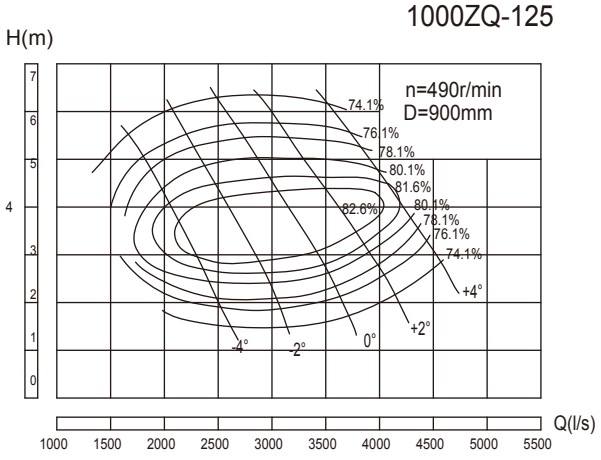
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	8901.4	2472.6	2.87	490	93.6	160	74.4	900
	8146.1	2262.8	4.36		116		83.4	
	5748.1	1596.7	7.35		154.7		74.4	
-4°	10314	2865	2.77		104.6	185	74.4	
	8803.1	2445.3	5.34		151.8		84.4	
	6306.5	1751.8	7.8		180.2		74.4	
-2°	11594.9	3220.8	2.87		121.9	220	74.4	
	10018.4	2782.9	5.24		169.5		84.4	
	6930.7	1925.2	8.17		207.4		74.4	
0°	12481.9	3467.2	3.13		143.1	250	74.4	
	10971	3047.5	5.44		190.4		85.4	
	7620.5	2116.8	8.48		236.7		74.4	
+2°	13335.8	3704.4	3.6		175.8	280	74.4	
	11726.3	3257.3	5.81		220		84.4	
	8310.2	2308.4	8.73		265.7		74.4	
+4°	14189.8	3941.6	4.04		210	315	74.4	
	11989.1	3330.3	6.57		257.4		83.4	
	9065.9	2518.3	8.72		289.5		74.4	



1000ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	8737.2	2427	3.29	490	96.1	160	81.5	900
	8211.6	2281	4.14		111.5		83.1	
	7390.4	2052.9	5.45		134.7		81.5	
-4°	9985.3	2773.7	3.01		100.5	185	81.5	
	9197.3	2554.8	4.21		124.7		84.6	
	8031.2	2230.9	5.91		158.7		81.5	
-2°	10872.4	3020.1	2.93		106.5	185	81.5	
	10018.4	2782.9	4.33		138.7		85.2	
	8605.8	2390.5	6.2		178.4		81.5	
0°	11726.3	3257.3	3.02		118.4	220	81.5	
	10839.6	3011	4.32		149.2		85.5	
	9246.2	2568.4	6.42		198.5		81.5	
+2°	12481.9	3467.2	3.26		136.1	220	81.5	
	11496.2	3193.4	4.55		165.7		86	
	9985.3	2773.7	6.44		215		81.5	
+4°	13138.9	3649.7	3.58		157.3	250	81.5	
	12317.8	3421.6	4.57		179		85.7	
	11003.8	3056.6	6.17		227		81.5	

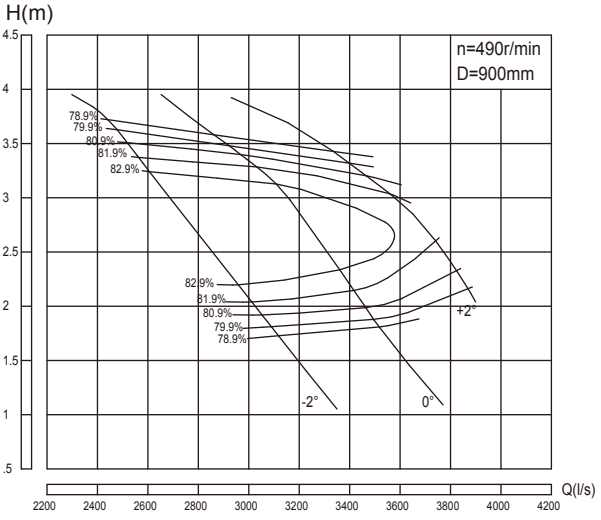
1000ZQ-125



1000ZQ-125 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	8934.5	2481.8	2.1		65.5		78.1	
-4°	8146.1	2262.8	3.11		83.6	132	82.6	
	6503.8	1806.6	5.07		118.1		76.1	
	10937.9	3038.3	2.09		79.8		78.1	
-2°	10084	2801.1	3.23		106.9	160	83	
	7948.8	2208	5.49		156.3		76.1	
	12908.9	3585.8	2.34		105.4		78.1	
0°	11890.4	3302.9	3.56	490	138	220	83.6	900
	9558.4	2655.1	5.76		197.1		76.1	
	14353.9	3987.2	2.77		138.7		78.1	
+2°	13204.4	3667.9	3.68		159.5	250	83	
	11069.3	3074.8	5.76		228.3		76.1	
	15667.9	4352.2	3.56		194.6		78.1	
+4°	15010.9	4169.7	4.07		203.3	280	81.9	
	13401.4	3722.6	5.56		266.8		76.1	

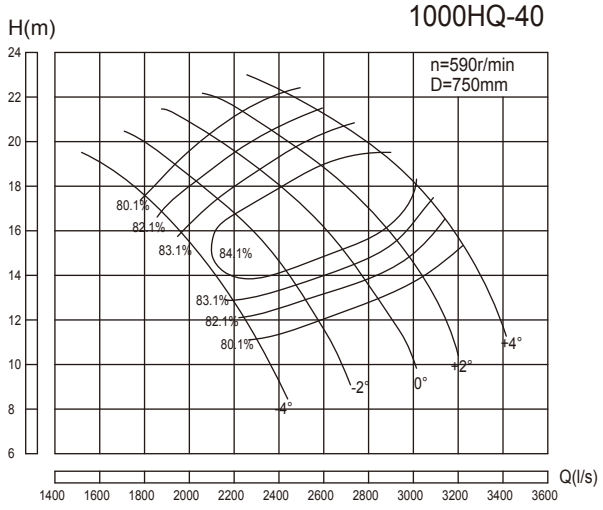
1000ZQ-160



1000ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	11123.3	3089.8	1.81		68.7		79.9	
-2°	10182.6	2828.5	2.56		84.2	132	84.4	
	8917.2	2477	3.63		110.4		79.9	
	12571.6	3492.1	1.87		80.2		79.9	
0°	11824.9	3284.7	2.57	490	99.3	132	83.4	900
	10533.2	2925.9	3.47		124.7		79.9	
	13930.6	3869.6	2.16		102.6		79.9	
+2°	13204.4	3667.9	2.77		121.7	160	81.9	
	12233.2	3398.1	3.32		138.5		79.9	

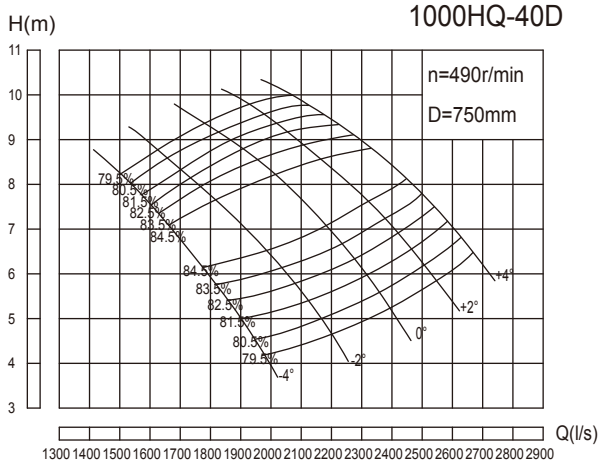
1000HQ-40



1000HQ-40 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	8288.6	2302.4	11.15		314.4		80.1	
-4°	7588.4	2107.9	14.31		352.7	450	83.9	
	6514.2	1809.5	17.72		392.7		80.1	
	9292.7	2581.3	12.02		380		80.1	
-2°	8405.6	2334.9	15.52		422.7	500	84.1	
	7004.5	1945.7	19.12		455.6		80.1	
	10203.5	2834.3	12.97		450.2		80.1	
0°	9105.8	2529.4	16.88	590	496.3	560	84.4	750
	7541.6	2094.9	20.52		526.5		80.1	
	10950.5	3041.8	14.03		522.7		80.1	
+2°	9806.4	2724	17.83		559.9	630	85.1	
	8055.4	2237.6	21.55		590.6		80.1	
	11604.2	3223.4	15.47		610.7		80.1	
+4°	10507	2918.6	19.08		645.7	710	84.6	
	8755.9	2432.2	22.42		667.8		80.1	

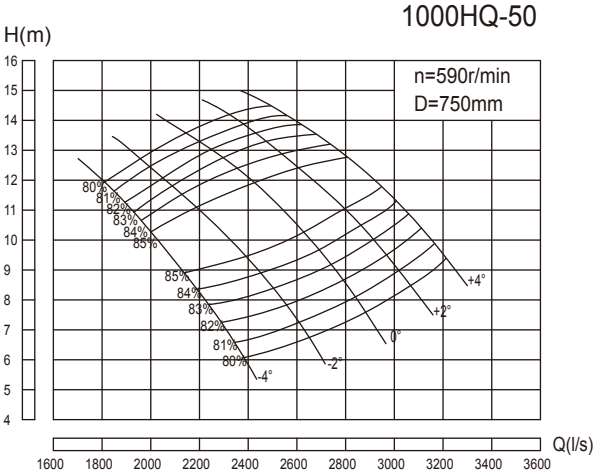
1000HQ-40D



1000HQ-40D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	6748.2	1874.5	7.59		175.6		79.5	
-4°	6178	1716.1	9.74		196.8	250	83.3	
	5303.5	1473.2	12.06		219.2		79.5	
	7565.4	2101.5	8.18		212.1		79.5	
-2°	6843.2	1900.9	10.56		235.8	280	83.5	
	5702.8	1584.1	13.01		254.3		79.5	
	8306.6	2307.4	8.83		251.4		79.5	
0°	7413.5	2059.3	11.49	490	277	315	83.8	750
	6139.8	1705.5	13.97		294		79.5	
	8915	2476.4	9.55		291.8		79.5	
+2°	7983.7	2217.7	12.13		312.3	355	84.5	
	6558.1	1821.7	14.67		329.8		79.5	
	9447.1	2624.2	10.53		341		79.5	
+4°	8554	2376.1	12.99		360.5	400	84	
	7128.4	1980.1	15.26		372.9		79.5	

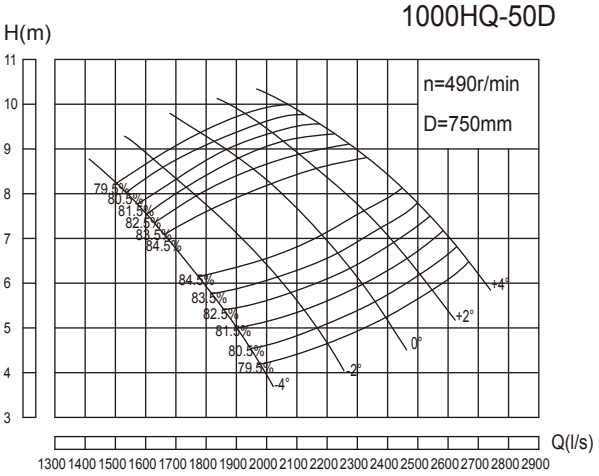
1000HQ-50



1000HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	8445.6	2346	6.57	590	186.7	280	81	750
	7324.2	2034.5	10.04		235.7		85	
	6614.6	1837.4	11.64		259		81	
-2°	9384.1	2606.7	7.24		228.6	315	81	
	8010.7	2225.2	10.87		278.8		85.1	
	7186.7	1996.3	12.42		300.3		81	
0°	10230.8	2841.9	8.07		277.8	400	81	
	8926.2	2479.5	11.38		325.7		85	
	7919.3	2199.8	13.3		354.3		81	
+2°	10871.6	3019.9	9		329.2	450	81	
	9384.1	2606.7	12.42		373.6		85	
	8605.8	2390.5	13.87		401.6		81	
+4°	11398.3	3166.2	9.83		376.9	450	81	
	10070.6	2797.4	12.83		414.2		85	
	9200.9	2555.8	14.18		438.9		81	

1000HQ-50D



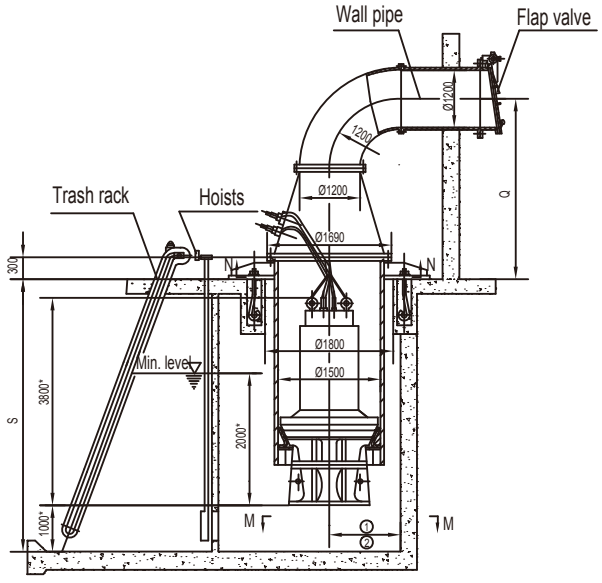
1000HQ-50D Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	7014.2	1948.4	4.53	490	107.6	160	80.5	835
	6082.9	1689.7	6.92		135.7		84.5	
	5493.6	1526	8.03		149.3		80.5	
-2°	7793.6	2164.9	5		131.9	185	80.5	
	6653.2	1848.1	7.49		160.5		84.6	
	5968.8	1658	8.56		173		80.5	
0°	8496.7	2360.2	5.57		160.2	220	80.5	
	7413.5	2059.3	7.85		187.7		84.5	
	6576.8	1826.9	9.17		204.2		80.5	
+2°	9029.2	2508.1	6.21		189.8	250	80.5	
	7793.6	2164.9	8.56		215.1		84.5	
	7147.1	1985.3	9.56		231.3		80.5	
+4°	9466.2	2629.5	6.78		217.3	280	80.5	
	8363.9	2323.3	8.85		238.7		84.5	
	7641.4	2122.6	9.78		253		80.5	

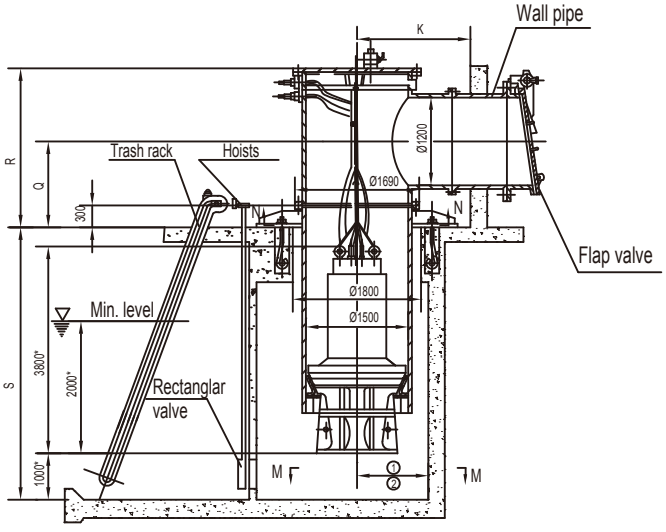
900HQ-40,900HQ-40D,1000HQ-40,1000HQ-40D,1000HQ-50,1000HQ-50D
1000ZQ-50,1000ZQ-70,1000ZQ-85,1000ZQ-100,1000ZQ-125,1000ZQ-160,

Outside installation dimensions drawing

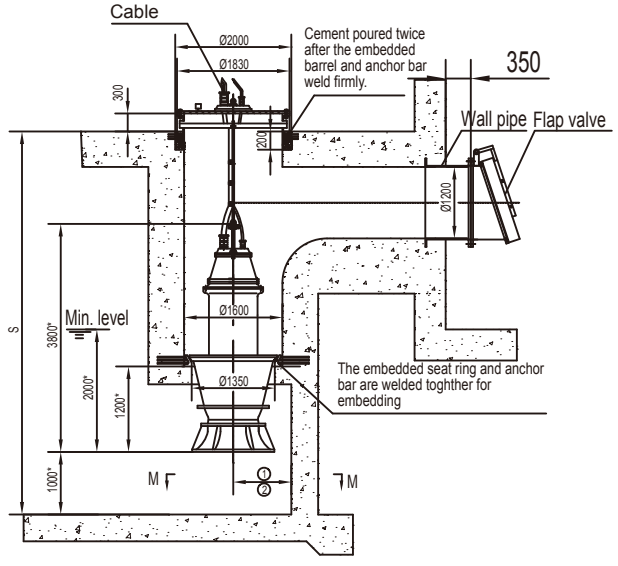
1. Suspension installation with bent pipe

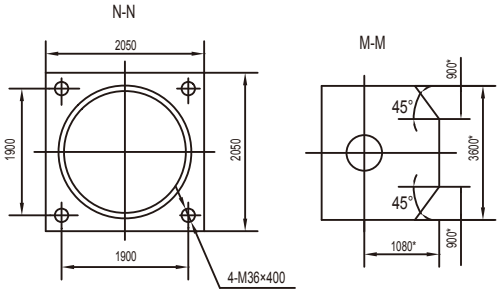


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





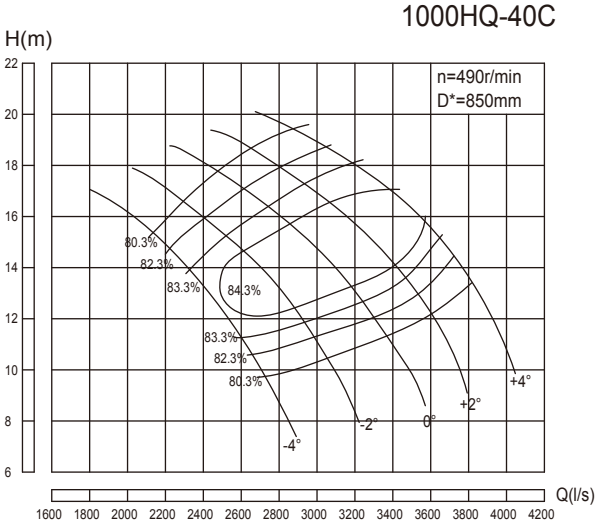
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

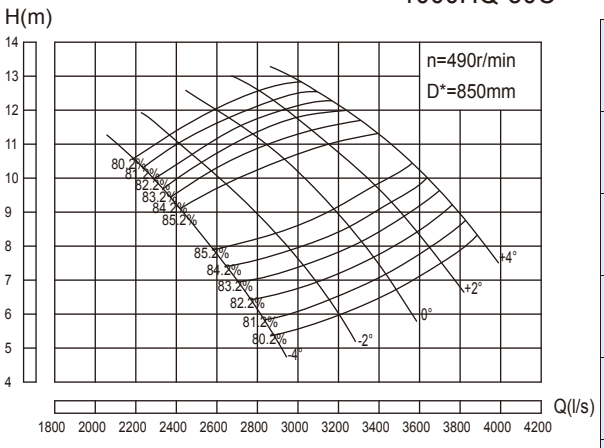
1000HQ-40C



1000HQ-40C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	9823.3	2728.7	9.75		325		80.3	
-4°	8993.2	2498.1	12.51		364.5	450	84.1	
	7720.2	2144.5	15.49		405.8		80.3	
	11013.1	3059.2	10.51		392.8		80.3	
-2°	9961.6	2767.1	13.57		437	500	84.3	
	8301.2	2305.9	16.71		470.7		80.3	
	12092	3358.9	11.34		465.3		80.3	
0°	10791.7	2997.7	14.76	490	513.1	560	84.6	850
	8937.7	2482.7	17.94		544.1		80.3	
	12977.6	3604.9	12.27		540.4		80.3	
+2°	11621.9	3228.3	15.58		578.4	650	85.3	
	9546.5	2651.8	18.84		610.3		80.3	
	13752.4	3820.1	13.52		631		80.3	
+4°	12452	3458.9	16.68		667.4	750	84.8	
	10376.6	2882.4	19.6		690.2		80.3	

1000HQ-50C



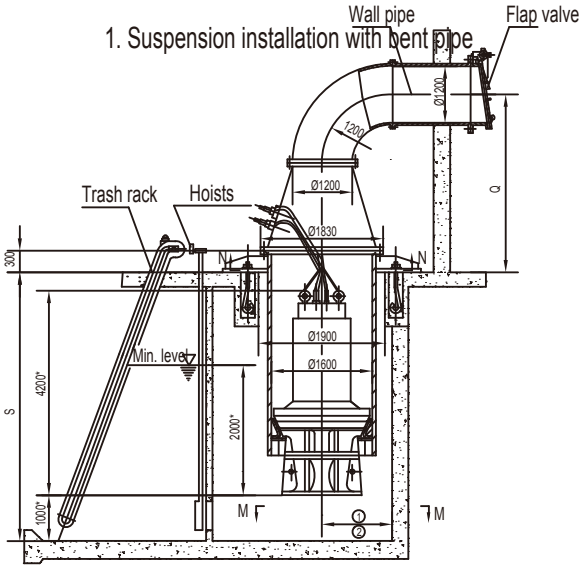
1000HQ-50C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	10210.7	2836.3	5.82		199.4		81.2	
-4°	8854.6	2459.6	8.89		251.8	315	85.2	
	7997	2221.4	10.31		276.7		81.2	
	11345	3151.4	6.42		244.4		81.2	
-2°	9684.7	2690.2	9.63		297.9	355	85.3	
	8688.6	2413.5	11		320.7		81.2	
	12368.9	3435.8	7.15		296.8		81.2	
0°	10791.7	2997.7	10.08	490	347.9	400	85.2	850
	9574.2	2659.5	11.78		378.5		81.2	
	13143.6	3651	7.98		352		81.2	
+2°	11345	3151.4	11		399.1	450	85.2	
	10404.4	2890.1	12.28		428.8		81.2	
	13780.1	3827.8	8.71		402.8		81.2	
+4°	12175.2	3382	11.37		442.8	500	85.2	
	11123.6	3089.9	12.56		468.9		81.2	

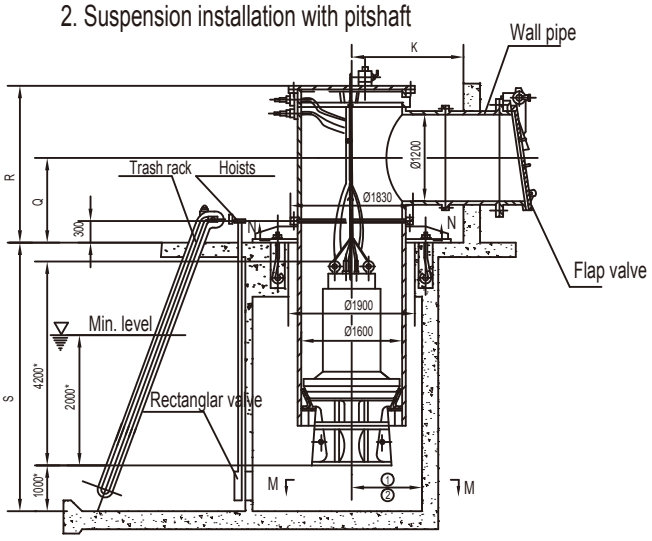
1000HQ-40C,1000HQ-50C

Outside installation dimensions drawing

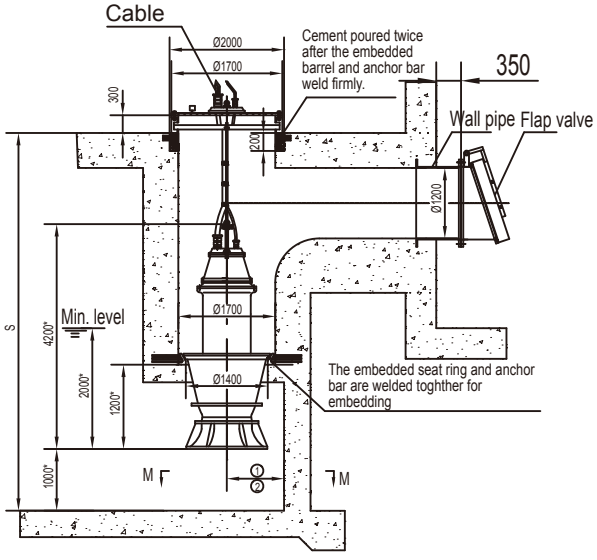
1. Suspension installation with bent pipe

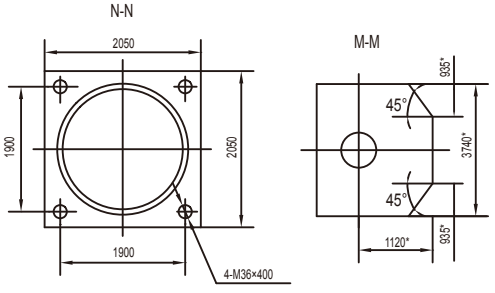


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





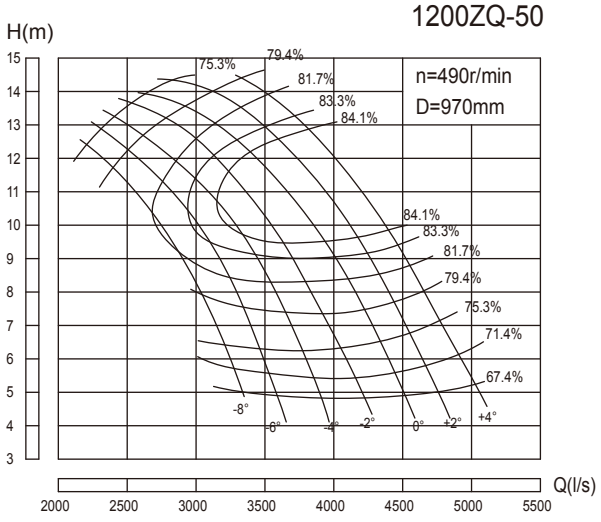
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

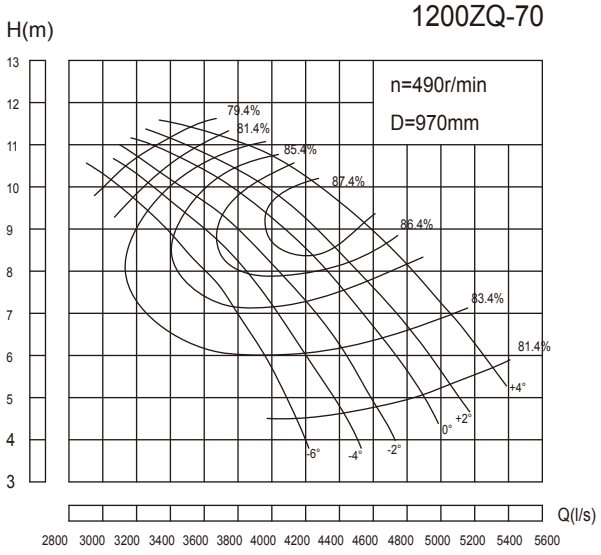
1200ZQ-50



1200ZQ-50 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	12572.6	3492.4	5.57		267.3		71.4	
-6°	10609.2	2947	10.18		352	400	83.6	
	8399.5	2333.2	12.83		384.9		76.3	
	13653.4	3792.6	5.47		285		71.4	
-4°	11534.8	3204.1	10.5		389.2	450	84.8	
	8667	2407.5	13.43		415.7		76.3	
	14739.5	4094.3	5.47		307.7		71.4	
-2°	11882.5	3300.7	10.81		412.8	500	84.8	
	9095	2526.4	13.8		448.3		76.3	
	15916.7	4421.3	5.73	490	348.1		71.4	970
0°	13198.7	3666.3	10.86		459.5	560	85	
	10539.7	2927.7	13.61		492.3		79.4	
	16879.7	4688.8	5.86		377.5		71.4	
+2°	13894.2	3859.5	11.13		496.9	560	84.8	
	11342.2	3150.6	14.06		547.3		79.4	
	17521.6	4867.1	6.36		425.3		71.4	
+4°	14611	4058.6	11.45		537.6	630	84.8	
	11877.1	3299.2	14.33		584.1		79.4	

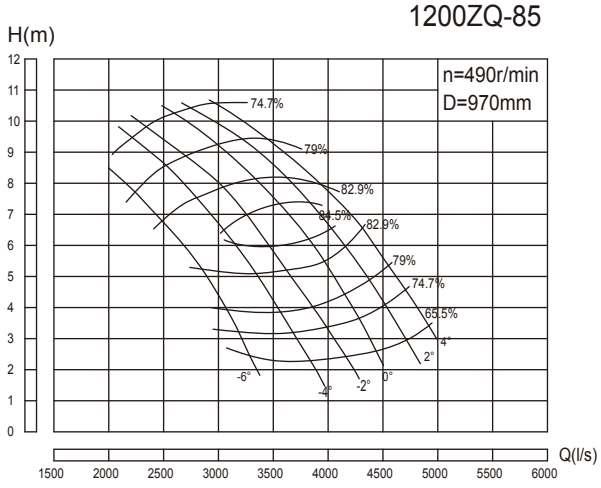
1200ZQ-70



1200ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	14804.3	4112.3	4.48		222		81.4	
-6°	13159.4	3655.4	7.88		330.9	400	85.4	
	10897.6	3027.1	10.15		379.6		79.4	
	15832.1	4397.8	4.6		243.8		81.4	
-4°	13488.1	3746.7	8.36		354.8	450	86.6	
	11308.7	3141.3	10.6		411.4		79.4	
	16654.7	4626.3	4.78		266.5		81.4	
-2°	14187.2	3940.9	8.72		388.4	450	86.8	
	11555.6	3209.9	10.74		425.9		79.4	
	17477.3	4854.8	5.13		300.1		81.4	
0°	14763.2	4100.9	9.1	490	416.5	500	87.9	970
	11843.3	3289.8	11.1		451.2		79.4	
	18094	5026.1	5.37		325.3		81.4	
+2°	15133.3	4203.7	9.19		429.2	500	88.3	
	11966.8	3324.1	11.22		460.8		79.4	
	18998.6	5277.4	5.85		372.1		81.4	
+4°	15709	4363.6	9.79		479.5	560	87.4	
	12706.9	3529.7	11.46		499.8		79.4	

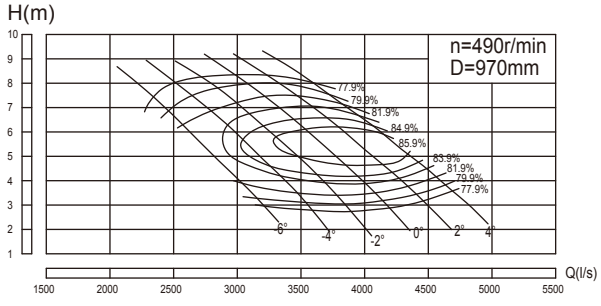
1200ZQ-85



1200ZQ-85 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	11144.2	3095.6	3.33	490	135.2	250	74.8	970
	10198.4	2832.9	5.06		167.8		83.8	
	7196.4	1999	8.54		223.9		74.8	
-4°	12912.5	3586.8	3.22		151.5	280	74.8	
	11021	3061.4	6.21		219.9		84.8	
	7895.5	2193.2	9.06		260.6		74.8	
-2°	14516.3	4032.3	3.33		176.1	315	74.8	
	12542.4	3484	6.09		245.5		84.8	
	8676.7	2410.2	9.49		300		74.8	
0°	15626.5	4340.7	3.64		207.2	400	74.8	
	13735.1	3815.3	6.32		275.7		85.8	
	9540.4	2650.1	9.85		342.3		74.8	
+2°	16695.7	4637.7	4.18		254.2	400	74.8	
	14680.8	4078	6.75		318.4		84.8	
	10404	2890	10.14		384.3		74.8	
+4°	17764.9	4934.7	4.69		303.5	450	74.8	
	15009.8	4169.4	7.63		372.4		83.8	
	11349.7	3152.7	10.12		418.4		74.8	

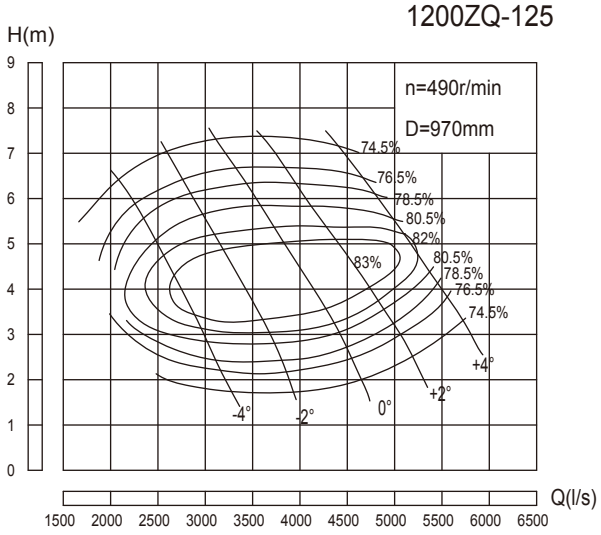
1200ZQ-100



1200ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	10938.6	3038.5	3.82	490	139	250	81.9	970
	10280.5	2855.7	4.81		161.4		83.5	
	9252.7	2570.2	6.33		194.9		81.9	
-4°	12501.4	3472.6	3.5		145.6	250	81.9	
	11514.2	3198.4	4.89		180.5		85	
	10054.4	2792.9	6.86		229.5		81.9	
-2°	13611.6	3781	3.4		154	280	81.9	
	12542.4	3484	5.03		200.8		85.6	
	10774.1	2992.8	7.2		258.1		81.9	
0°	14680.8	4078	3.51		171.5	315	81.9	
	13570.6	3769.6	5.01		215.7		85.9	
	11576.2	3215.6	7.46		287.3		81.9	
+2°	15626.5	4340.7	3.78		196.5	355	81.9	
	14392.8	3998	5.29		240.1		86.4	
	12501.4	3472.6	7.49		311.5		81.9	
+4°	16449.1	4569.2	4.15		227.1	355	81.9	
	15421	4283.6	5.31		259.2		86.1	
	13776.1	3826.7	7.16		328.2		81.9	

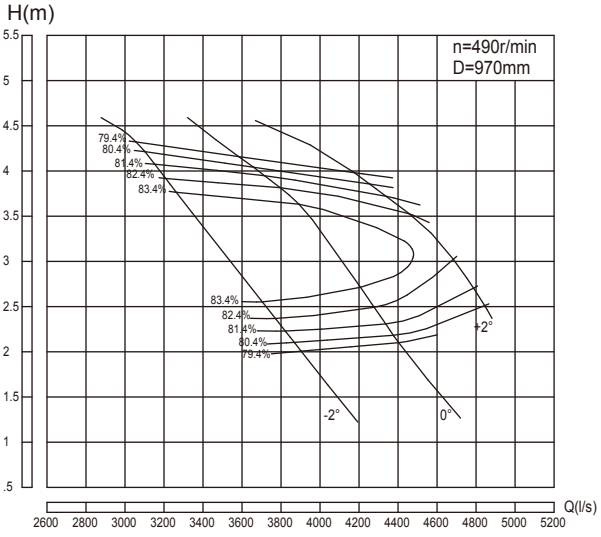
1200ZQ-125



1200ZQ-125 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	11185.6	3107.1	2.44	490	94.6	185	78.6	970
	10198.4	2832.9	3.62		121.1		83.1	
	8142.5	2261.8	5.89		170.6		76.6	
-2°	13694	3803.9	2.42		114.9	250	78.6	
	12624.8	3506.9	3.75		154.5		83.5	
	9951.8	2764.4	6.38		225.9		76.6	
0°	16161.1	4489.2	2.72		152.4	315	78.6	
	14886.4	4135.1	4.13		199.2		84.1	
	11966.8	3324.1	6.69		284.8		76.6	
+2°	17970.5	4991.8	3.22		200.6	355	78.6	
	16531.2	4592	4.27		230.4		83.5	
	13858.2	3849.5	6.69		329.8		76.6	
+4°	19615.7	5448.8	4.13		280.9	400	78.6	
	18793.1	5220.3	4.73		294		82.4	
	16778.2	4660.6	6.46		385.6		76.6	

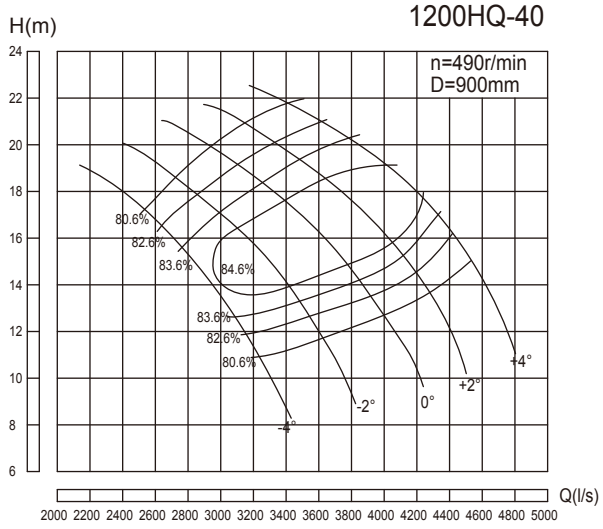
1200ZQ-160



1200ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	13925.9	3868.3	2.1	490	99.1	185	80.4	970
	12748	3541.1	2.97		121.5		84.9	
	11164	3101.1	4.21		159.3		80.4	
0°	15738.8	4371.9	2.17		115.8	200	80.4	
	14804.3	4112.3	2.98		143.3		83.9	
	13187.2	3663.1	4.04		180.6		80.4	
+2°	17440.6	4844.6	2.51		148.4	220	80.4	
	16531.2	4592	3.22		176		82.4	
	15315.5	4254.3	3.86		200.4		80.4	

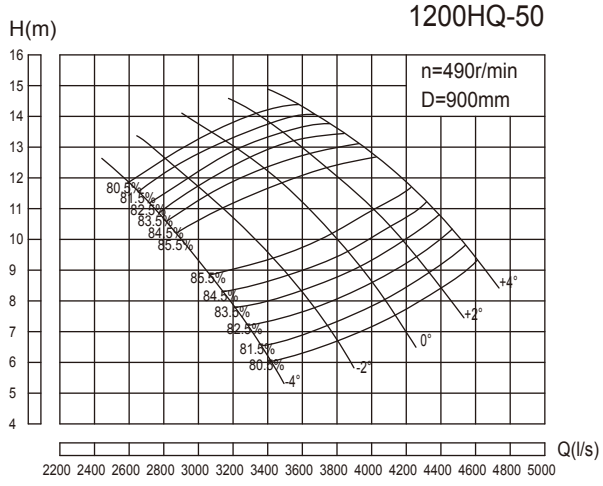
1200HQ-40



1200HQ-40 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-4°	11660.8	3239.1	10.93	490	430.9	630	80.6	900
	10675.1	2965.3	14.03		483.6		84.4	
	9164.2	2545.6	17.37		538.2		80.6	
-2°	13073	3631.4	11.78		520.7	710	80.6	
	11824.9	3284.7	15.21		579.3		84.6	
	9853.9	2737.2	18.74		624.3		80.6	
0°	14353.9	3987.2	12.71		616.8	800	80.6	
	12810.2	3558.4	16.55		680.5		84.9	
	10609.6	2947.1	20.11		721.3		80.6	
+2°	15405.1	4279.2	13.75		716.1	900	80.6	
	13795.6	3832.1	17.47		767.2		85.6	
	11332.1	3147.8	21.12		809.2		80.6	
+4°	16324.9	4534.7	15.16		836.7	1000	80.6	
	14781.2	4105.9	18.71		885.6		85.1	
	12317.8	3421.6	21.97		914.9		80.6	

1200HQ-50



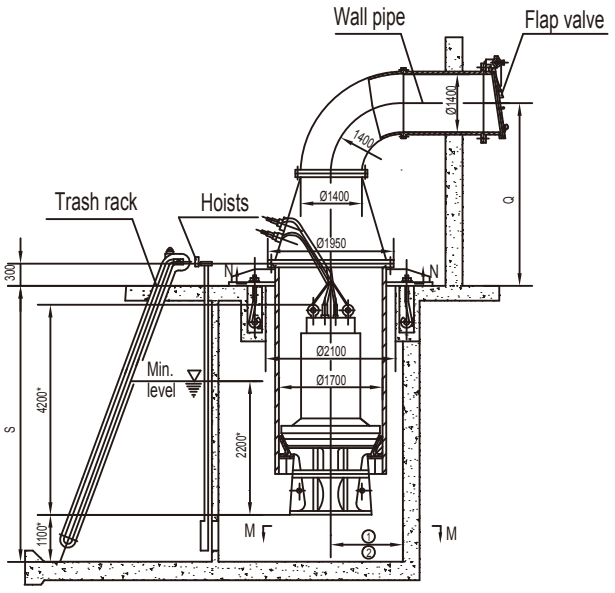
1200HQ-50 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-4°	12120.5	3366.8	6.53	490	264.3	400	81.6	900
	10510.9	2919.7	9.97		333.6		85.6	
	9492.8	2636.9	11.56		366.5		81.6	
-2°	13467.2	3740.9	7.19		323.4	450	81.6	
	11496.2	3193.4	10.79		394.4		85.7	
	10314	2865	12.33		424.7		81.6	
0°	14682.6	4078.5	8.02		393.2	560	81.6	
	12810.2	3558.4	11.31		461.2		85.6	
	11365.2	3157	13.21		501.4		81.6	
+2°	15602.4	4334	8.94		465.8	630	81.6	
	13467.2	3740.9	12.33		528.6		85.6	
	12350.5	3430.7	13.77		567.9		81.6	
+4°	16357.7	4543.8	9.76		533.1	710	81.6	
	14452.6	4014.6	12.74		586.1		85.6	
	13204.4	3667.9	14.08		620.9		81.6	

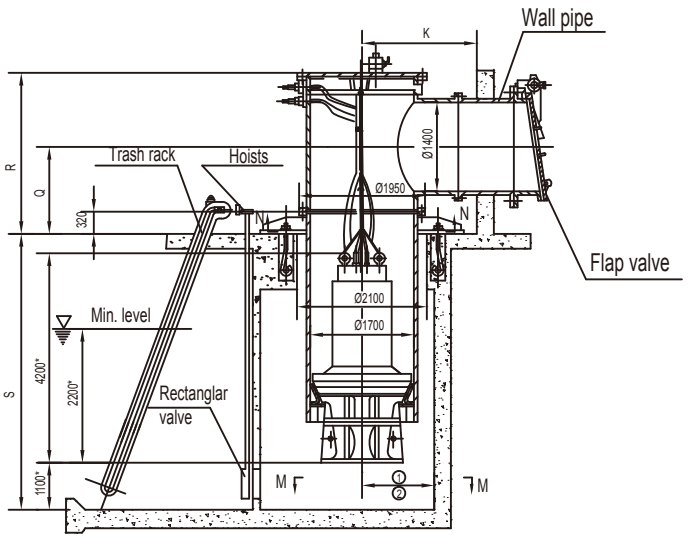
1200ZQ-50,1200ZQ-70,1200ZQ-85,1200ZQ-100,1200ZQ-125,1200ZQ-160,1200HQ-40
1200HQ-50

Outside installation dimensions drawing

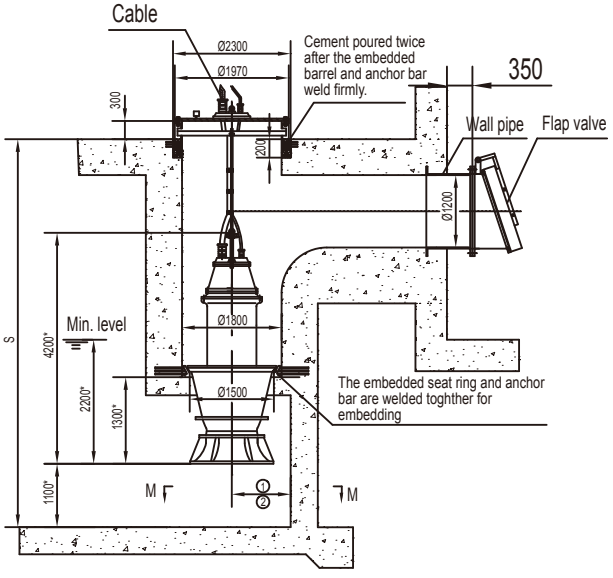
1. Suspension installation with bent pipe

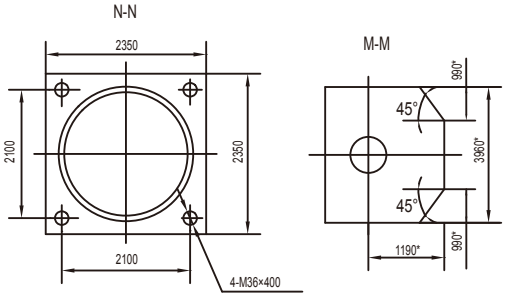


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





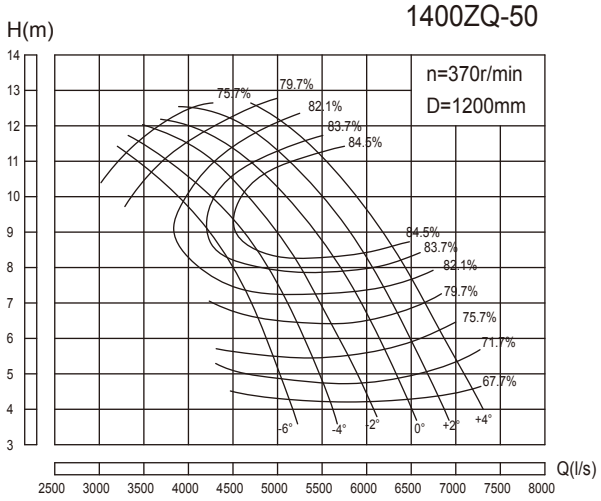
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

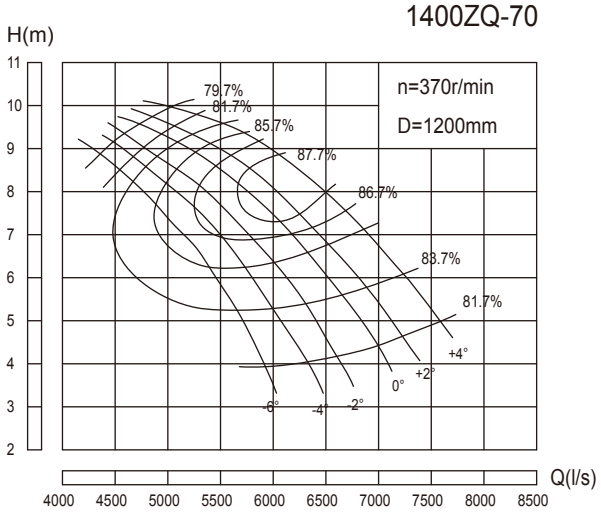
1400ZQ-50



1400ZQ-50 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	17974.8	4993	4.86	370	331.5	560	71.8	1200
	15167.5	4213.2	8.89		437.4		84	
	12008.5	3335.7	11.19		477.4		76.7	
-4°	19519.9	5422.2	4.77		353.4	560	71.8	
	16490.9	4580.8	9.16		483.1		85.2	
	12391.2	3442	11.72		516		76.7	
-2°	21072.6	5853.5	4.77		381.5	630	71.8	
	16988	4718.9	9.43		512.4		85.2	
	13002.8	3611.9	12.05		556.7		76.7	
0°	22755.2	6320.9	5		431.8	710	71.8	
	18869.8	5241.6	9.48		570.8		85.4	
	15068.2	4185.6	11.88		611.3		79.8	
+2°	24132.2	6703.4	5.11		468	800	71.8	
	19864.1	5517.8	9.72		617.5		85.2	
	16215.5	4504.3	12.27		679.4		79.8	
+4°	25049.9	6958.3	5.55		527.6	800	71.8	
	20889	5802.5	9.99		667.4		85.2	
	16980.5	4716.8	12.5		724.8		79.8	

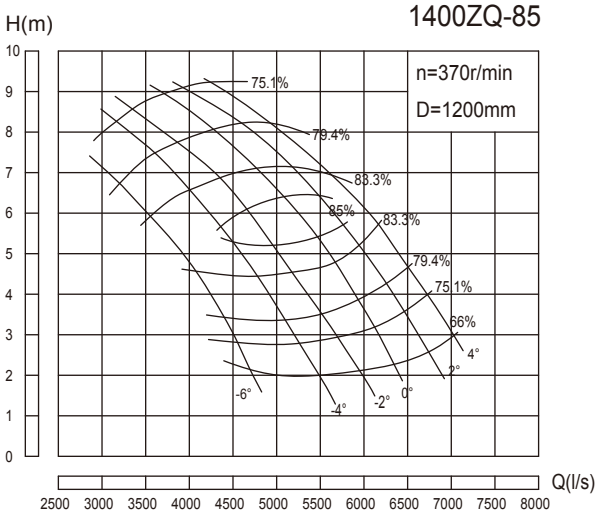
1400ZQ-70



1400ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	21165.1	5879.2	3.91	370	276	500	81.7	1200
	18813.2	5225.9	6.88		411.6		85.7	
	15579.7	4327.7	8.86		472		79.7	
-4°	22634.6	6287.4	4.01		302.7	560	81.7	
	19283.8	5356.6	7.29		440.8		86.9	
	16167.6	4491	9.25		511.3		79.7	
-2°	23810.8	6614.1	4.17		331.2	560	81.7	
	20283.1	5634.2	7.61		482.9		87.1	
	16520.4	4589	9.38		529.8		79.7	
0°	24986.5	6940.7	4.48		373.4	630	81.7	
	21106.1	5862.8	7.94		517.8		88.2	
	16931.9	4703.3	9.69		561		79.7	
+2°	25868.5	7185.7	4.69		404.7	630	81.7	
	21635.3	6009.8	8.02		533.7		88.6	
	17108.3	4752.3	9.79		572.7		79.7	
+4°	27161.6	7544.9	5.1		462	710	81.7	
	22458.6	6238.5	8.54		595.9		87.7	
	18166.7	5046.3	10		621.1		79.7	

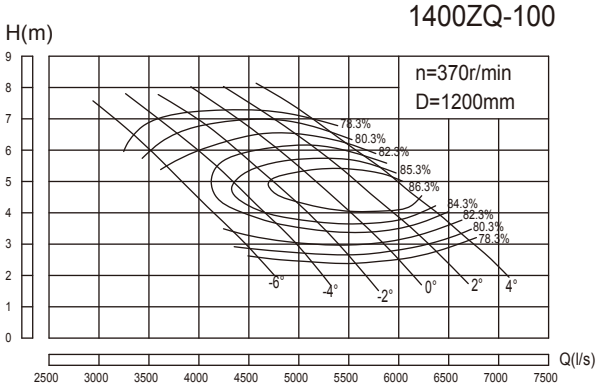
1400ZQ-85



1400ZQ-85 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	15932.5	4425.7	2.91	370	168	315	75.2	1200
	14580.4	4050.1	4.42		208.6		84.2	
	10288.4	2857.9	7.45		277.8		75.2	
-4°	18460.4	5127.9	2.81		188	355	75.2	
	15756.1	4376.7	5.42		273.1		85.2	
	11288.2	3135.6	7.91		323.6		75.2	
-2°	20753.6	5764.9	2.91		218.8	400	75.2	
	17931.6	4981	5.31		304.5		85.2	
	12404.9	3445.8	8.28		372.2		75.2	
0°	22340.9	6205.8	3.18		257.4	450	75.2	
	19636.6	5454.6	5.51		342		86.2	
	13639.7	3788.8	8.59		424.6		75.2	
+2°	23869.4	6630.4	3.65		315.7	560	75.2	
	20988.7	5830.2	5.89		395.4		85.2	
	14874.5	4131.8	8.84		476.5		75.2	
+4°	25398	7055	4.09		376.4	560	75.2	
	21458.9	5960.8	6.66		462.5		84.2	
	16226.6	4507.4	8.83		519.2		75.2	

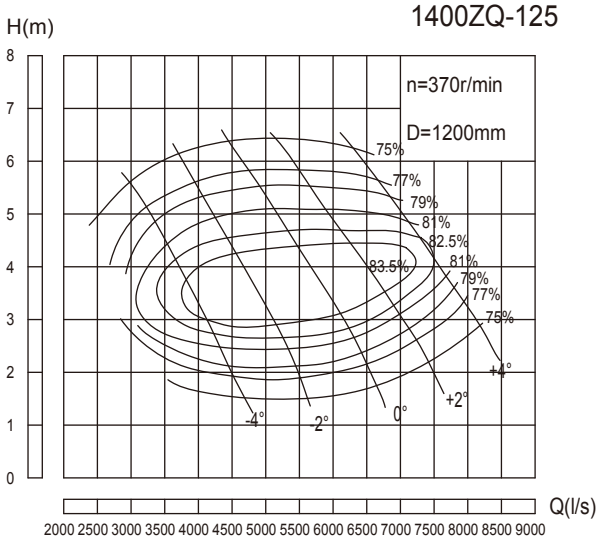
1400ZQ-100



1400ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	15638.8	4344.1	3.33	370	172.4	315	82.3	1200
	14698.1	4082.8	4.2		200.5		83.9	
	13228.2	3674.5	5.52		241.8		82.3	
-4°	17872.6	4964.6	3.05		180.5	315	82.3	
	16461.7	4572.7	4.27		224.3		85.4	
	14374.4	3992.9	5.99		285.1		82.3	
-2°	19460.2	5405.6	2.97		191.4	355	82.3	
	17931.6	4981	4.39		249.4		86	
	15403.3	4278.7	6.28		320.3		82.3	
0°	20988.7	5830.2	3.06		212.7	400	82.3	
	19401.1	5389.2	4.38		268.3		86.3	
	16549.9	4597.2	6.51		356.7		82.3	
+2°	22340.9	6205.8	3.3		244.1	400	82.3	
	20577.2	5715.9	4.62		298.5		86.8	
	17872.6	4964.6	6.53		386.4		82.3	
+4°	23516.6	6532.4	3.63		282.6	450	82.3	
	22046.8	6124.1	4.64		322.3		86.5	
	19695.2	5470.9	6.25		407.6		82.3	

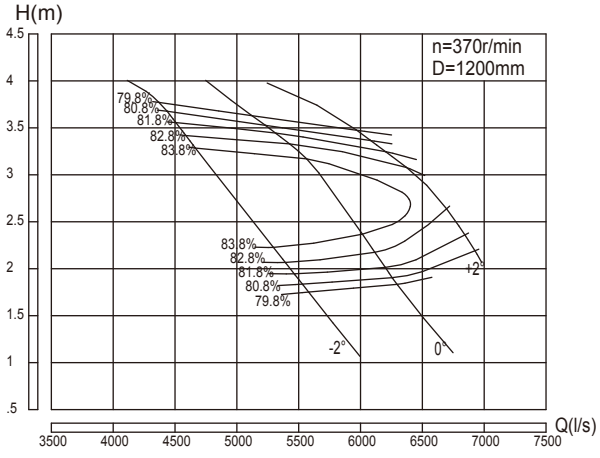
1400ZQ-125



1400ZQ-125 Performance parameter list

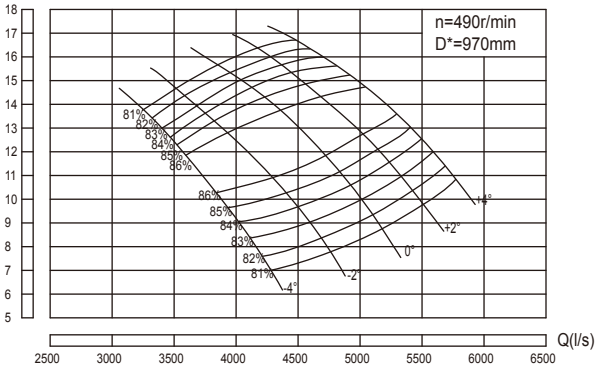
Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)		(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	15991.2	4442	2.13	370	117.5	250	79	1200
	14580.4	4050.1	3.16		150.4		83.5	
	11640.6	3233.5	5.14		211.7		77	
-2°	19577.5	5438.2	2.11		142.5	315	79	
	18049	5013.6	3.27		191.7		83.9	
	14227.6	3952.1	5.56		280		77	
0°	23105.2	6418.1	2.38		189.7	400	79	
	21282.5	5911.8	3.6		247.1		84.5	
	17108.3	4752.3	5.83		353		77	
+2°	25692.1	7136.7	2.81		249	400	79	
	23634.4	6565.1	3.73		286.3		83.9	
	20170	5603.6	5.53		381.6		78	
+4°	28043.6	7789.9	3.6		348.2	500	79	
	26867.9	7463.3	4.13		365.2		82.8	
	23987.2	6753.1	5.54		460.8		78	

1400ZQ-160



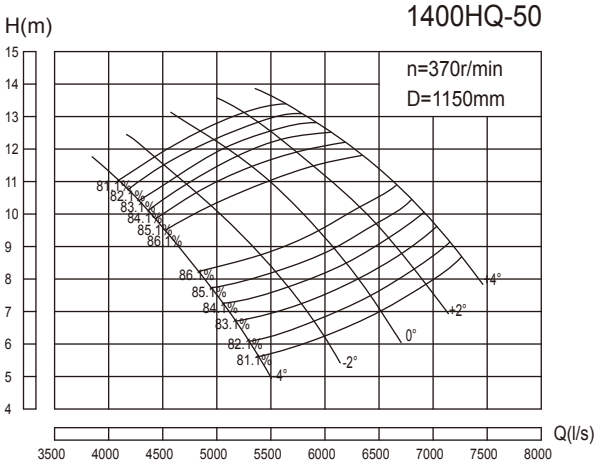
1400ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	19909.1	5530.3	1.83	370	122.9	220	80.8	1200
	18225.4	5062.6	2.59		150.8		85.3	
	15960.6	4433.5	3.68		198.1		80.8	
0°	22501.4	6250.4	1.9		144.2	250	80.8	
	21165.1	5879.2	2.6		177.9		84.3	
	18853.2	5237	3.52		223.8		80.8	
+2°	24934.3	6926.2	2.19		184.2	280	80.8	
	23634.4	6565.1	2.81		218.6		82.8	
	21895.9	6082.2	3.37		248.9		80.8	



1300HQ-50 Performance parameter list

Blade angle	Capacity Q (m^3/h)	Capacity Q (l/s)	Head H (m)	Speed n (r/min)	Power P (kW) Shaft Power	Power P (kW) Motor Power	Efficiency η (%)	Impeller diameter (mm)
-4°	15174.4	4215.1	7.58	490	382.2	560	82	970
	13159.4	3655.4	11.58		482.9		86	
	11884.3	3301.2	13.43		530.4		82	
-2°	16860.2	4683.4	8.36		468.4	630	82	
	14392.8	3998	12.54		571.2		86.1	
	12912.5	3586.8	14.33		614.9		82	
0°	18382	5106.1	9.31		568.7	800	82	
	16038	4455	13.13		667.2		86	
	14228.6	3952.4	15.34		725.3		82	
+2°	19533.2	5425.9	10.39		674.4	900	82	
	16860.2	4683.4	14.33		765.6		86	
	15462	4295	16		822.1		82	
+4°	20479	5688.6	11.34		771.7	1000	82	
	18094	5026.1	14.8		848.5		86	
	16531.2	4592	16.36		898.8		82	



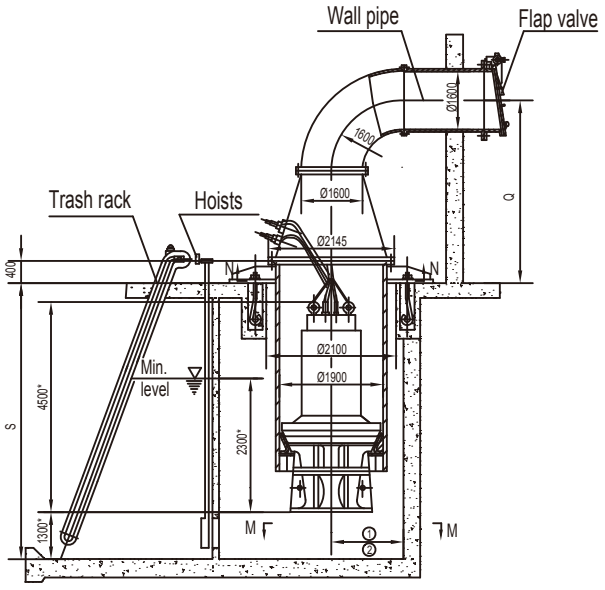
1400HQ-50 Performance parameter list

Blade angle	Capacity Q (m^3/h)	Capacity Q (l/s)	Head H (m)	Speed n (r/min)	Power P (kW) Shaft Power	Power P (kW) Motor Power	Efficiency η (%)	Impeller diameter (mm)
-4°	19093.7	5303.8	6.08	370	384.8	560	82.2	1150
	16558.2	4599.5	9.28		485.8		86.2	
	14954.4	4154	10.76		533.4		82.2	
-2°	21215.2	5893.1	6.7		471.2	710	82.2	
	18110.5	5030.7	10.05		574.7		86.3	
	16247.9	4513.3	11.48		618.3		82.2	
0°	23130	6425	7.46		572	800	82.2	
	20180.5	5605.7	10.52		671.1		86.2	
	17903.5	4973.2	12.29		729.4		82.2	
+2°	24578.6	6827.4	8.32		677.9	900	82.2	
	21215.2	5893.1	11.48		769.9		86.2	
	19455.8	5404.4	12.82		826.9		82.2	
+4°	25768.8	7158	9.09		776.5	1000	82.2	
	22767.8	6324.4	11.86		853.6		86.2	
	20801.5	5778.2	13.11		904.1		82.2	

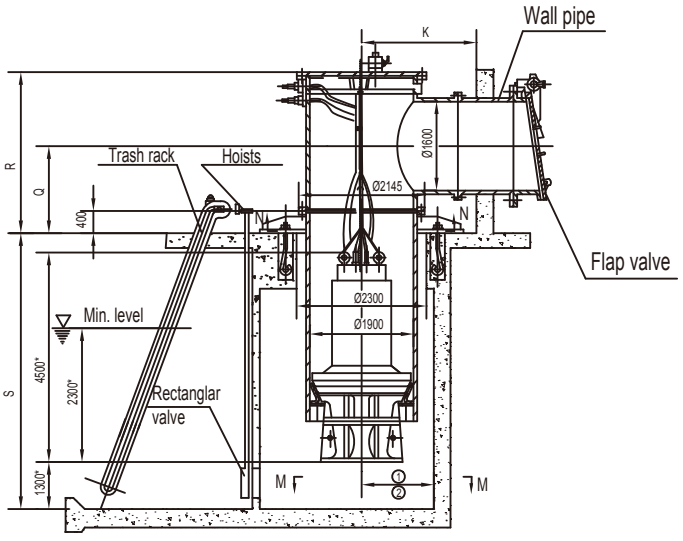
1400ZQ-50,1400ZQ-70,1400ZQ-85,1400ZQ-100,1400ZQ-125,1400ZQ-160,1300HQ-50
1400HQ-50

Outside installation dimensions drawing

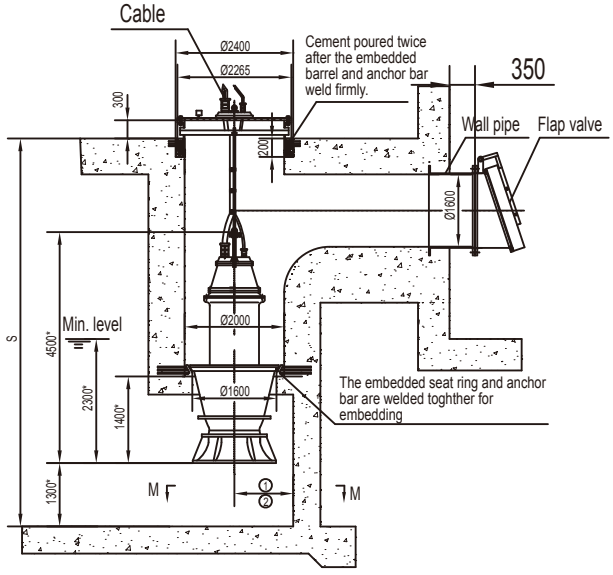
1. Suspension installation with bent pipe

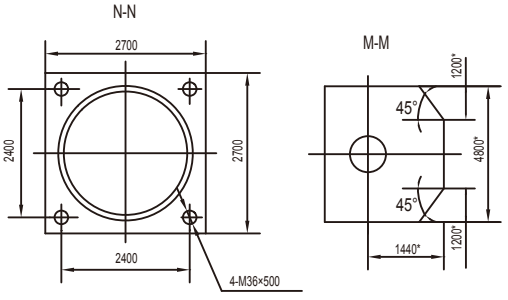


2. Suspension installation with pitshaft



3. Installation with prefabricated concrete





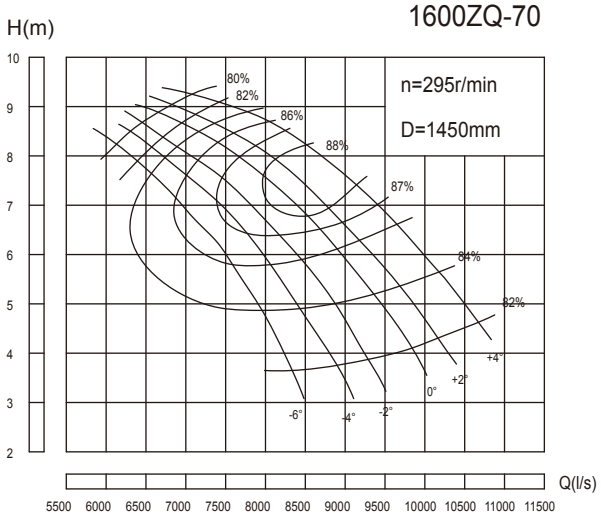
Note: S.Q.R,K according to customer request

① Advise the distance should be 290×between pump center and wall

② The distance between two pump should be more than 1200×

③ The dimension with* is just for reference

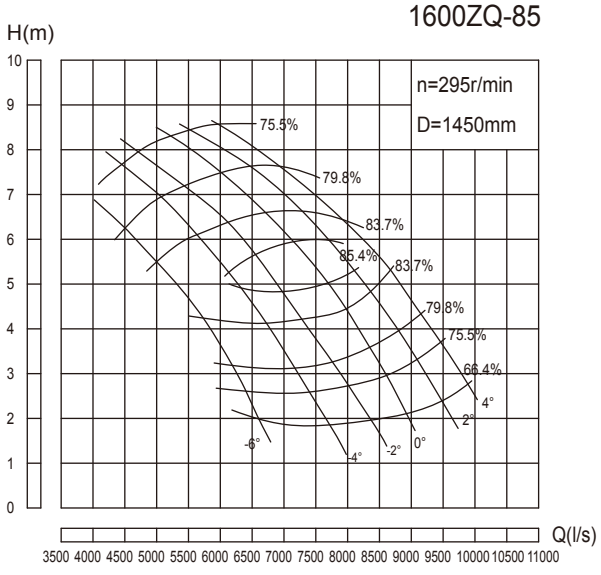
1600ZQ-70



1600ZQ-70 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	29771.3	8269.8	3.63	295	359.1	630	82	1450
	26463.6	7351	6.38		535		86	
	21915	6087.5	8.22		613.6		80	
-4°	31838.8	8844.1	3.72		393.6	710	82	
	27124.9	7534.7	6.77		573.9		87.2	
	22741.9	6317.2	8.59		665.4		80	
-2°	33493	9303.6	3.87		430.7	800	82	
	28531.1	7925.3	7.06		628		87.4	
	23238.4	6455.1	8.7		688.7		80	
0°	35146.8	9763	4.16		485.9	800	82	
	29688.8	8246.9	7.37		673.7		88.5	
	23817.2	6615.9	8.99		729.3		80	
+2°	36387.4	10107.6	4.35		526	800	82	
	30433	8453.6	7.45		695		88.9	
	24065.3	6684.8	9.09		745.1		80	
+4°	38206.8	10613	4.74		601.8	900	82	
	31590.7	8775.2	7.93		775.7		88	
	25553.9	7098.3	9.28		807.8		80	

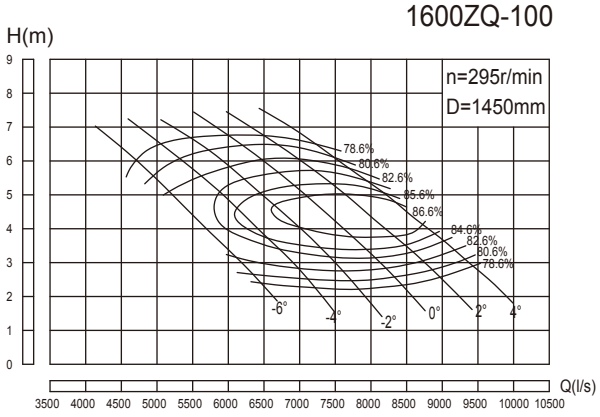
1600ZQ-85



1600ZQ-85 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	22411.1	6225.3	2.7	295	218.1	400	75.6	1450
	20509.2	5697	4.1		270.8		84.6	
	14472.4	4020.1	6.91		360.5		75.6	
-4°	25967.2	7213.1	2.61		244.3	450	75.6	
	22163	6156.4	5.03		354.9		85.6	
	15878.2	4410.6	7.34		420.1		75.6	
-2°	29192.4	8109	2.7		284.1	560	75.6	
	25223	7006.4	4.93		395.9		85.6	
	17449.2	4847	7.69		483.7		75.6	
0°	31425.5	8729.3	2.95		334.2	630	75.6	
	27621.4	7672.6	5.12		445		86.6	
	19185.8	5329.4	7.98		551.9		75.6	
+2°	33575.4	9326.5	3.38		409.1	710	75.6	
	29523.2	8200.9	5.46		513.2		85.6	
	20922.8	5811.9	8.21		619.2		75.6	
+4°	35725.7	9923.8	3.8		489.3	710	75.6	
	30184.9	8384.7	6.18		600.9		84.6	
	22824.7	6340.2	8.2		674.6		75.6	

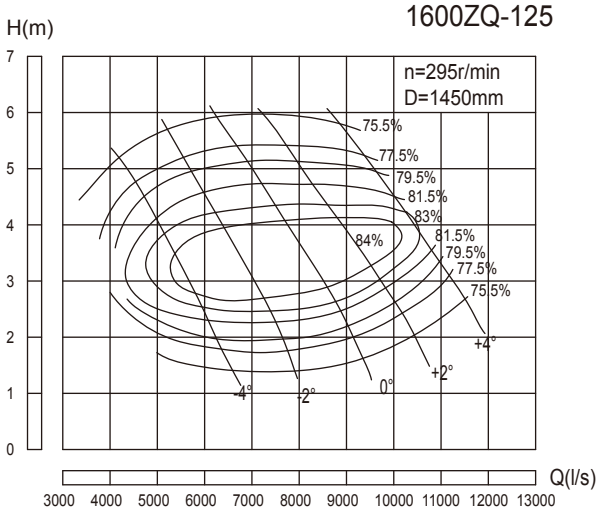
1600ZQ-100



1600ZQ-100 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	21997.8	6110.5	3.09	295	224	355	82.7	1450
	20674.4	5742.9	3.9		260.6		84.3	
	18607	5168.6	5.12		313.9		82.7	
-4°	25140.2	6983.4	2.83		234.4	400	82.7	
	23155.6	6432.1	3.96		291.2		85.8	
	20219.8	5616.6	5.56		370.4		82.7	
-2°	27373.3	7603.7	2.76		248.9	450	82.7	
	25223	7006.4	4.07		323.8		86.4	
	21667	6018.6	5.83		416.2		82.7	
0°	29523.2	8200.9	2.84		276.3	500	82.7	
	27290.5	7580.7	4.06		348.2		86.7	
	23279.8	6466.6	6.04		463.3		82.7	
+2°	31425.5	8729.3	3.07		317.9	560	82.7	
	28944.4	8040.1	4.28		387.1		87.2	
	25140.2	6983.4	6.06		502		82.7	
+4°	33079.3	9188.7	3.36		366.2	560	82.7	
	31011.8	8614.4	4.3		418.2		86.9	
	27703.8	7695.5	5.8		529.5		82.7	

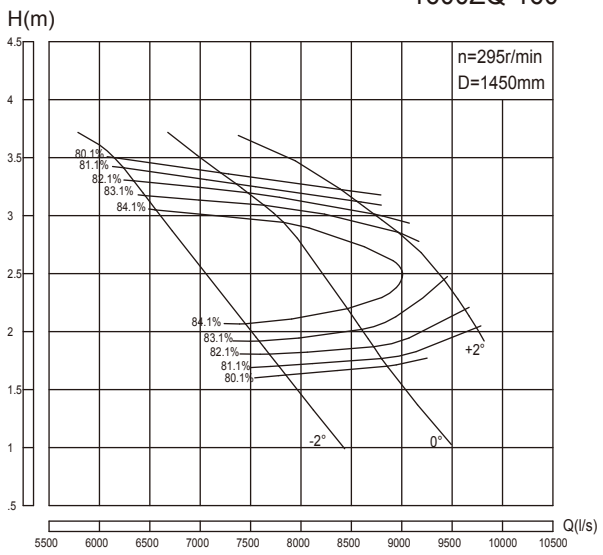
1600ZQ-125



1600ZQ-125 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-4°	22493.9	6248.3	1.97	295	151.9	315	79.5	1450
	20509.2	5697	2.93		194.9		84	
	16374.2	4548.4	4.77		274.6		77.5	
-2°	27538.6	7649.6	1.96		185	400	79.5	
	25388.3	7052.3	3.04		249.2		84.4	
	20013.1	5559.2	5.16		363.1		77.5	
0°	32500.4	9027.9	2.2		245.1	500	79.5	
	29936.9	8315.8	3.35		321.5		85	
	24065.3	6684.8	5.41		457.8		77.5	
+2°	36139.3	10038.7	2.61		323.3	560	79.5	
	33244.6	9234.6	3.46		371.4		84.4	
	27869.4	7741.5	5.41		530.1		77.5	
+4°	39447	10957.5	3.35		453	710	79.5	
	37793.2	10498.1	3.83		473.5		83.3	
	33741	9372.5	5.23		620.5		77.5	

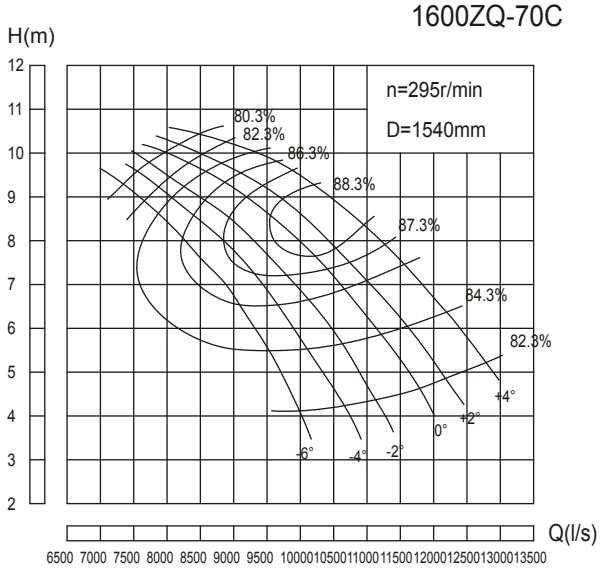
1600ZQ-160



1600ZQ-160 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m³/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-2°	28005.1	7779.2	1.7	295	159.8	280	81.2	1450
	25636.3	7121.2	2.41		196.5		85.7	
	22451	6236.4	3.41		256.9		81.2	
0°	31651.2	8792	1.76		186.9	315	81.2	
	29771.3	8 269.8	2.42		231.8		84.7	
	26519.8	7366.6	3.27		291		81.2	
+2°	35073.4	9742.6	2.03		238.9	355	81.2	
	33244.6	9234.6	2.61		284.2		83.2	
	30799.4	8555.4	3.12		322.5		81.2	

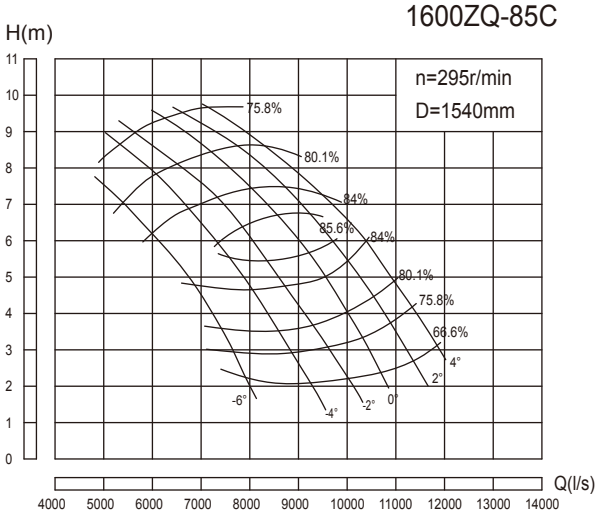
1600ZQ-70C



1600ZQ-70C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m³/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	35666.3	9907.3	4.09	295	483	900	82.3	1540
	31703.4	8806.5	7.2		720.8		86.3	
	26254.4	7292.9	9.27		825.9		80.3	
-4°	38143.1	10595.3	4.2		530.4	1000	82.3	
	32495.8	9026.6	7.63		772.2		87.5	
	27245.2	7568.1	9.69		895.9		80.3	
-2°	40124.5	11145.7	4.36		579.2	1000	82.3	
	34180.2	9494.5	7.96		845.4		87.7	
	27839.5	7733.2	9.82		927.7		80.3	
0°	42106	11696.1	4.69		653.9	1100	82.3	
	35567.3	9879.8	8.31		907		88.8	
	28532.9	7925.8	10.14		981.8		80.3	
+2°	43592	12108.9	4.91		708.7	1100	82.3	
	36459	10127.5	8.4		935.6		89.2	
	28830.2	8008.4	10.25		1002.8		80.3	
+4°	45771.8	12714.4	5.34		809.3	1200	82.3	
	37845.7	10512.7	8.94		1044.1		88.3	
	30613.7	8503.8	10.47		1087.7		80.3	

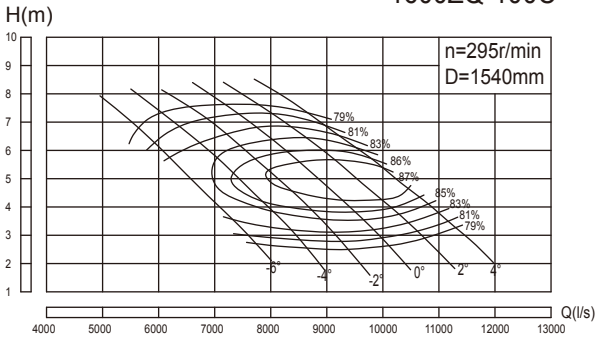
1600ZQ-85C



1600ZQ-85C Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	26848.8	7458	3.04	295	293	560	75.9	1540
	24570	6825	4.62		364.3		84.9	
	17337.6	4816	7.8		485.5		75.9	
-4°	31109	8641.4	2.94		328.4	630	75.9	
	26551.4	7375.4	5.67		477.6		85.9	
	19022	5283.9	8.28		565.5		75.9	
-2°	34972.6	9714.6	3.04		381.7	710	75.9	
	30217.3	8393.7	5.56		533		85.9	
	20904.5	5806.8	8.67		650.7		75.9	
0°	37647.7	10457.7	3.33		450.1	800	75.9	
	33090.5	9191.8	5.77		598.7		86.9	
	22984.9	6384.7	9		742.7		75.9	
+2°	40223.5	11173.2	3.82		551.7	900	75.9	
	35368.9	9824.7	6.16		691.2		85.9	
	25065.4	6962.6	9.26		833.3		75.9	
+4°	42799.3	11888.7	4.29		659.2	1000	75.9	
	36161.6	10044.9	6.97		809		84.9	
	27344.2	7595.6	9.25		908.1		75.9	

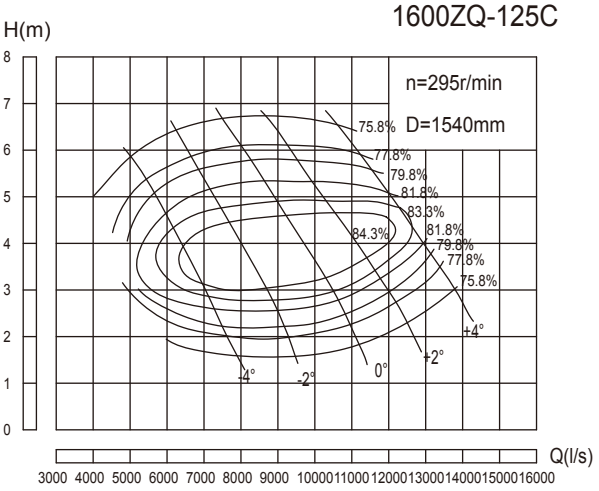
1600ZQ-100C



1600ZQ-100C Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	26353.4	7320.4	3.49	295	302	450	83	1540
	24768.4	6880.1	4.4		351		84.6	
	22291.6	6192.1	5.78		423		83	
-4°	30118.3	8366.2	3.2		316.4	560	83	
	27740.5	7705.7	4.47		392.5		86.1	
	24223.3	6728.7	6.27		498.6		83	
-2°	32793.1	9109.2	3.11		334.8	630	83	
	30217.3	8393.7	4.59		435.9		86.7	
	25957.1	7210.3	6.58		560.8		83	
0°	35368.9	9824.7	3.21		372.7	710	83	
	32694.1	9081.7	4.58		469		87	
	27889.2	7747	6.82		624.5		83	
+2°	37647.7	10457.7	3.46		427.7	800	83	
	34675.6	9632.1	4.83		521.6		87.5	
	30118.3	8366.2	6.84		676.4		83	
+4°	39629.2	11008.1	3.8		494.4	800	83	
	37152.4	10320.1	4.85		563.1		87.2	
	33189.5	9219.3	6.54		712.6		83	

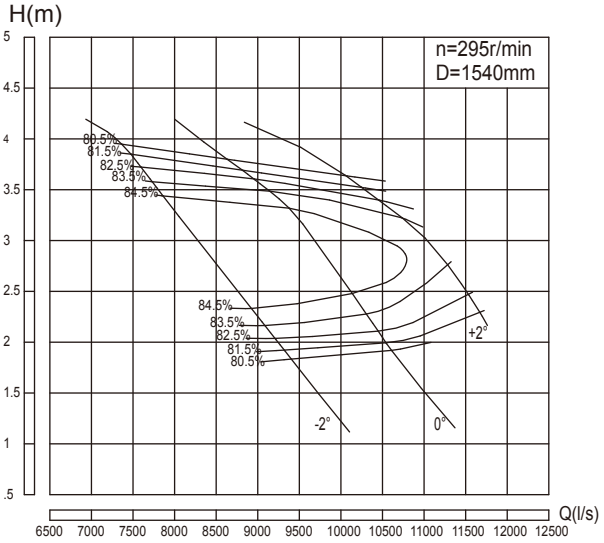
1600ZQ-125C



1600ZQ-125C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	26947.8	7485.5	2.23		205.2		79.8	
-4°	24570	6825	3.3		262.1	400	84.3	
	19616.4	5449	5.38		369.6		77.8	
	32991.1	9164.2	2.21		249		79.8	
-2°	30415.3	8448.7	3.42		334.7	560	84.7	
	23975.6	6659.9	5.82		488.7		77.8	
	38935.8	10815.5	2.49		331.1		79.8	
0°	35864.3	9962.3	3.77	295	431.9	710	85.3	1540
	28830.2	8008.4	6.11		617		77.8	
	43295	12026.4	2.94		434.7		79.8	
+2°	39827.2	11063.1	3.9		499.7	800	84.7	
	33387.5	9274.3	6.11		714.5		77.8	
	47257.9	13127.2	3.77		608.4		79.8	
+4°	45276.5	12576.8	4.32		637.6	900	83.6	
	40421.9	11228.3	5.9		835.3		77.8	

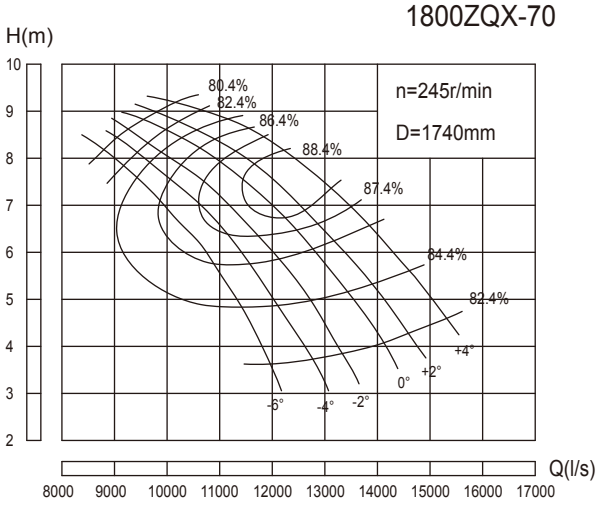
1600ZQ-160C



1600ZQ-160C Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
	33550.2	9319.5	1.92		215.1		81.6	
-2°	30712.7	8531.3	2.72		264.4	400	84.1	
	26896.3	7471.2	3.85		345.8		81.6	
	37918.1	10532.8	1.99		252		81.6	
0°	35666.3	9907.3	2.73	295	311.8	450	85.1	1540
	31770.7	8825.2	3.69		391.5		81.6	
	42017.8	11671.6	2.29		321.3		81.6	
+2°	39827.2	11063.1	2.94		381.7	500	83.6	
	36897.8	10249.4	3.52		433.7		81.6	

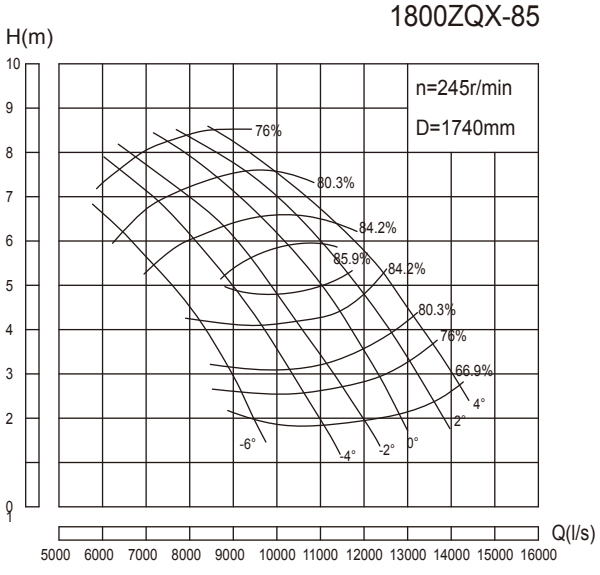
1800ZQX-70



1800ZQX-70 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	42725.5	11868.2	3.6	245	508.7	1000	82.4	1740
	37978.2	10549.5	6.34		759.4		86.4	
	31450.7	8736.3	8.16		869.8		80.4	
-4°	45692.6	12692.4	3.7		559.1	1000	82.4	
	38927.5	10813.2	6.72		813.7		87.6	
	32637.6	9066	8.53		943.6		80.4	
-2°	48066.1	13351.7	3.84		610.4	1100	82.4	
	40945.3	11373.7	7.01		890.8		87.8	
	33349.7	9263.8	8.64		976.6		80.4	
0°	50440	14011.1	4.13		688.9	1100	82.4	
	42606.7	11835.2	7.32		956		88.9	
	34180.6	9494.6	8.93		1034.5		80.4	
+2°	52220.2	14505.6	4.32		746	1200	82.4	
	43674.8	12131.9	7.4		986.2		89.3	
	34536.6	9593.5	9.03		1057		80.4	
+4°	54830.9	15230.8	4.71		854.1	1200	82.4	
	45336.6	12593.5	7.88		1101.3		88.4	
	36672.8	10186.9	9.22		1146		80.4	

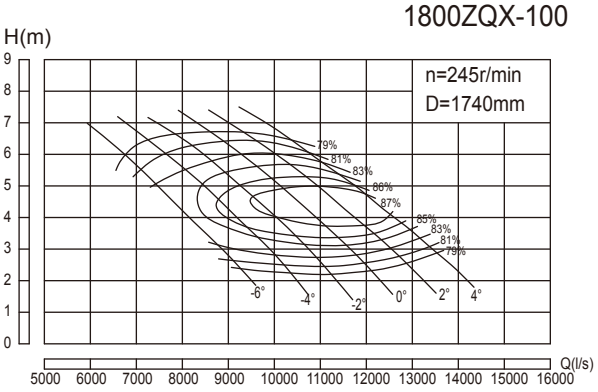
1800ZQX-85



1800ZQX-85 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	32162.8	8934.1	2.68	245	308.7	560	76.1	1740
	29433.2	8175.9	4.07		383.6		85.1	
	20769.5	5769.3	6.87		510.9		76.1	
-4°	37266.1	10351.7	2.59		345.6	630	76.1	
	31806.7	8835.2	4.99		502.3		86.1	
	22786.9	6329.7	7.29		594.8		76.1	
-2°	41894.6	11637.4	2.68		402	710	76.1	
	36198	10055	4.9		561.4		86.1	
	25042	6956.1	7.64		685.1		76.1	
0°	45099	12527.5	2.93		473.2	900	76.1	
	39639.6	11011	5.08		630		87.1	
	27534.2	7648.4	7.92		780.9		76.1	
+2°	48184.9	13384.7	3.36		579.7	1000	76.1	
	42369.5	11769.3	5.43		728.1		86.1	
	30026.5	8340.7	8.15		876.3		76.1	
+4°	51270.5	14241.8	3.77		692.1	1100	76.1	
	43318.8	12033	6.14		851.7		85.1	
	32756	9098.9	8.14		954.8		76.1	

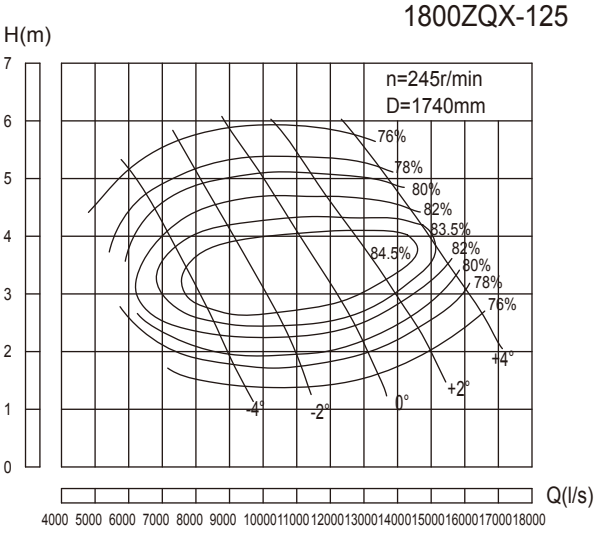
1800ZQX-100



1800ZQX-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	31569.5	8769.3	3.07	245	317.8	500	83.1	1740
	29670.5	8241.8	3.87		369.4		84.7	
	26703.4	7417.6	5.09		445.7		83.1	
-4°	36079.2	10022	2.81		332.5	560	83.1	
	33230.9	9230.8	3.94		413.9		86.2	
	29017.8	8060.5	5.52		525.3		83.1	
-2°	39283.6	10912.1	2.74		353	630	83.1	
	36198	10055	4.04		459.1		86.8	
	31094.6	8637.4	5.79		590.4		83.1	
0°	42369.5	11769.3	2.82		391.8	710	83.1	
	39165.1	10879.2	4.03		493.8		87.1	
	33409.1	9280.3	6		657.3		83.1	
+2°	45099	12527.5	3.04		449.6	800	83.1	
	41538.6	11538.5	4.25		549.2		87.6	
	36079.2	10022	6.02		712.2		83.1	
+4°	47472.8	13186.9	3.34		519.9	800	83.1	
	44505.7	12362.7	4.27		593.2		87.3	
	39758.4	11044	5.76		751		83.1	

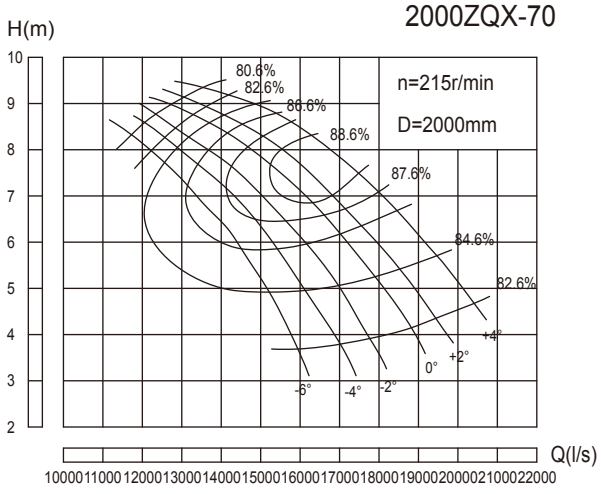
1800ZQX-125



1800ZQX-125 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	32281.6	8967.1	1.96	245	215.5	450	80	1740
	29433.2	8175.9	2.91		276.2		84.5	
	23499	6527.5	4.73		388.3		78	
-2°	39521.2	10978.1	1.95		262.5	560	80	
	36435.2	10120.9	3.02		353.2		84.9	
	28721.2	7978.1	5.13		514.7		78	
0°	46642	12956.1	2.19		347.9	710	80	
	42962.8	11934.1	3.32		454.6		85.5	
	34536.6	9593.5	5.38		649.1		78	
+2°	51864.1	14406.7	2.59		457.6	800	80	
	47710.1	13252.8	3.44		526.8		84.9	
	39995.6	11109.9	5.38		751.7		78	
+4°	56611.4	15725.4	3.32		640.2	900	80	
	54237.6	15066	3.8		670.2		83.8	
	48422.2	13450.6	5.2		879.7		78	

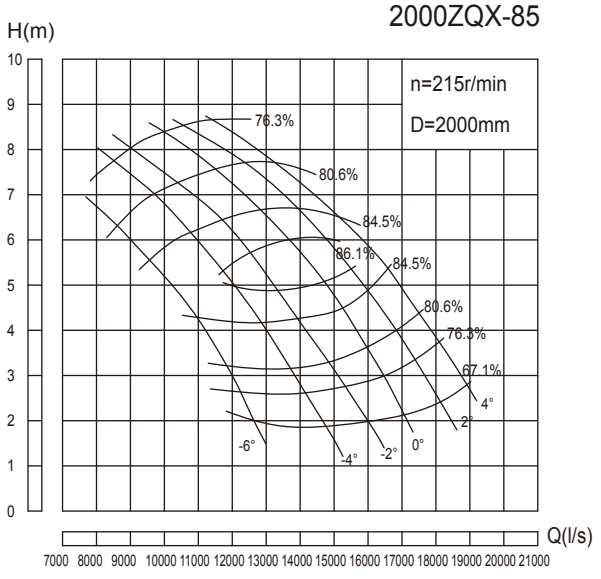
2000ZQX-70



2000ZQX-70 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	56938	15816.1	3.66	215	686.7	1100	82.7	2000
	50611.3	14058.7	6.45		1026		86.7	
	46080	12800	7.6		1086		82.6	
-4°	60891.8	16914.4	3.76		754.4	1200	82.7	
	51876.7	14410.2	6.84		1100		87.9	
	46440.3	12900.1	8.0		1144		86.6	
-2°	64055.2	17793.1	3.91		825.3	1200	82.7	
	54565.6	15157.1	7.13		1203.4		88.1	
	44082.2	12245.3	8.2		1113.5		86.6	
0°	67218.5	18671.8	4.2		930.2	1300	82.7	
	56779.9	15772.2	7.45		1292.3		89.2	
	50760.1	14100	8.0		1251.4		80.7	
+2°	69590.9	19330.8	4.4		1008.9	1400	82.7	
	58203.4	16167.6	7.52		1331.1		89.6	
	54000.0	15000	8.2		1358		87	
+4°	73070.3	20297.3	4.79		1153.3	1500	82.7	
	60417.4	16782.6	8.01		1486.7		88.7	
	48871.8	15200	8.6		1443.6		80.7	

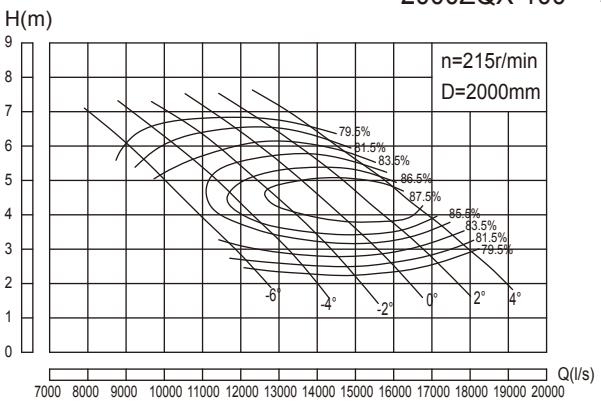
2000ZQX-85



2000ZQX-85 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	42861.6	11906	2.73	215	417.4	800	76.4	2000
	39223.8	10895.5	4.14		518.2		85.4	
	27678.2	7688.4	6.99		690.1		76.4	
-4°	49662.4	13795.1	2.64		467.6	900	76.4	
	42387.1	11774.2	5.08		679.1		86.4	
	30366.7	8435.2	7.42		803.7		76.4	
-2°	55831	15508.6	2.73		543.6	1000	76.4	
	48238.9	13399.7	4.98		757.7		86.4	
	33372	9270	7.77		924.9		76.4	
0°	60101.3	16694.8	2.98		638.8	1200	76.4	
	52825.7	14673.8	5.17		851.5		87.4	
	36693.4	10192.6	8.06		1054.9		76.4	
+2°	64213.2	17837	3.42		783.3	1250	76.4	
	56463.5	15684.3	5.52		983		86.4	
	40014.7	11115.2	8.3		1184.6		76.4	
+4°	68325.5	18979.3	3.84		935.8	1300	76.4	
	57728.9	16035.8	6.24		1149.4		85.4	
	43652.5	12125.7	8.29		1290.7		76.4	

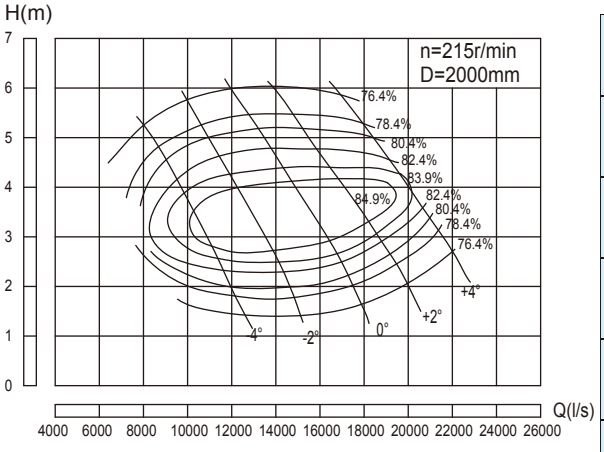
2000ZQX-100



2000ZQX-100 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-6°	42070.7	11686.3	3.13	215	429.7	710	83.5	2000
	39540.2	10983.4	3.94		498.9		85.1	
	35586.4	9885.1	5.18		601.6		83.5	
-4°	48080.9	13355.8	2.86		448.8	800	83.5	
	44285	12301.4	4.01		558.8		86.6	
	38670.5	10741.8	5.62		709.2		83.5	
-2°	52351.2	14542	2.78		475	900	83.5	
	48238.9	13399.7	4.11		619.6		87.2	
	41438.2	11510.6	5.89		796.5		83.5	
0°	56463.5	15684.3	2.87		528.8	1000	83.5	
	52193.2	14498.1	4.1		666.4		87.5	
	44522.3	12367.3	6.11		887.8		83.5	
+2°	60101.3	16694.8	3.1		608	1100	83.5	
	55356.5	15376.8	4.33		742.2		88	
	48080.9	13355.8	6.13		961.9		83.5	
+4°	63264.2	17573.4	3.4		702	1100	83.5	
	59310.4	16475.1	4.35		801.7		87.7	
	52984.1	14717.8	5.86		1013.3		83.5	

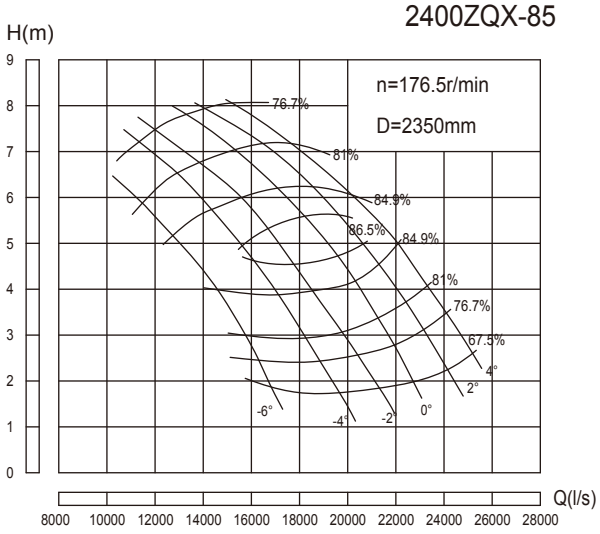
2000ZQX-125



2000ZQX-125 Performance parameter list

Blade angle	Capacity Q		Head H	Speed n	Power P (kW)		Efficiency η	Impeller diameter
	(m^3/h)	(l/s)	(m)	(r/min)	Shaft Power	Motor Power	(%)	(mm)
-4°	43019.6	11949.9	1.99	215	290.2	560	80.4	2000
	39223.8	10895.5	2.96		372.6		84.9	
	31316	8698.9	4.82		524.6		78.4	
-2°	52667.6	14629.9	1.98		353.4	800	80.4	
	48555.4	13487.6	3.07		476.2		85.3	
	38274.8	10631.9	5.22		694.4		78.4	
0°	62157.2	17265.9	2.23		469.8	1000	80.4	
	57254.4	15904	3.38		613.9		85.9	
	46024.9	12784.7	5.47		875		78.4	
+2°	69116.4	19199	2.64		618.4	1100	80.4	
	63580.7	17661.3	3.5		710.9		85.3	
	53300.2	14805.6	5.47		1013.4		78.4	
+4°	75442.7	20956.3	3.38		864.3	1200	80.4	
	72279.7	20077.7	3.87		905.3		84.2	
	64529.6	17924.9	5.29		1186.5		78.4	

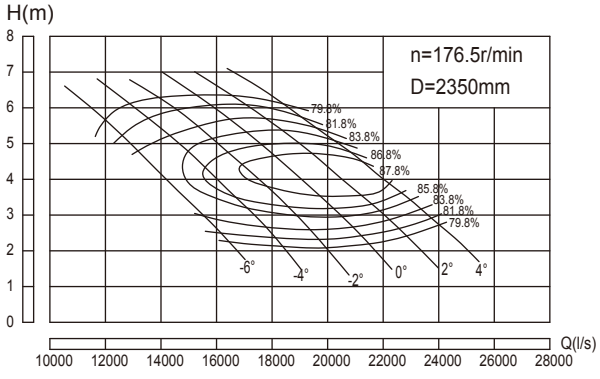
2400ZQX-85



2400ZQX-85 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	57080.5	15855.7	2.54	176.5	514.4	900	76.8	2350
	52236	14510	3.85		638.7		85.8	
	36860	10238.9	6.5		850.1		76.8	
-4°	66137.8	18371.6	2.45		574.9	1100	76.8	
	56448.7	15680.2	4.73		838.2		86.8	
	40441	11233.6	6.9		990.1		76.8	
-2°	74352.2	20653.4	2.54		670.1	1200	76.8	
	64242	17845	4.64		935.8		86.8	
	44442.7	12345.2	7.23		1140.1		76.8	
0°	80039.2	22233.1	2.77		786.7	1350	76.8	
	70350.1	19541.7	4.81		1050.2		87.8	
	48866	13573.9	7.5		1300.4		76.8	
+2°	85515.5	23754.3	3.18		964.9	1400	76.8	
	75194.6	20887.4	5.14		1213.4		86.8	
	53200.4	16200	7.0		1345.6		81.1	
+4°	90991.8	25275.5	3.57		1152.6	1500	76.8	
	76879.8	21355.5	5.81		1418.6		85.8	
	58133.9	17500.3	7.1		1453.3		81.1	

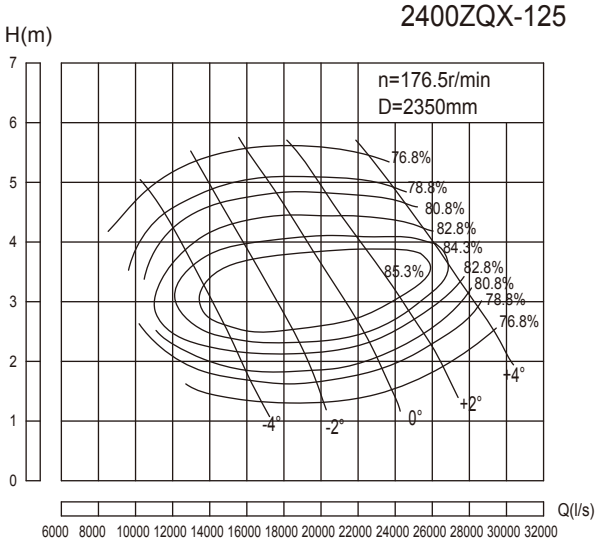
2400ZQX-100



2400ZQX-100 Performance parameter list

Blade angle	Capacity Q		Head H (m)	Speed n (r/min)	Power P (kW)		Efficiency η (%)	Impeller diameter (mm)
	(m^3/h)	(l/s)			Shaft Power	Motor Power		
-6°	56027.5	15563.2	2.91	176.5	530.2	800	83.8	2350
	52657.2	14627	3.66		615		85.4	
	47391.5	13164.3	4.82		742.8		83.8	
-4°	64031.4	17786.5	2.66		553.9	900	83.8	
	58976.3	16382.3	3.73		689.8		86.9	
	51498.7	14305.2	5.23		875.8		83.8	
-2°	69718.3	19366.2	2.59		587.2	1000	83.8	
	64242	17845	3.83		766.3		87.5	
	55184.8	15329.1	5.48		983.4		83.8	
0°	75194.6	20887.4	2.67		652.9	1150	83.8	
	69507.7	19307.7	3.82		824.1		87.8	
	59292.4	16470.1	5.68		1095.1		83.8	
+2°	80039.2	22233.1	2.88		749.6	1200	83.8	
	73720.4	20477.9	4.03		916.9		88.3	
	64031.4	17786.5	5.7		1186.8		83.8	
+4°	84251.9	23403.3	3.16		865.7	1300	83.8	
	78986.2	21940.6	4.05		990.6		88	
	70560.7	19600.2	5.46		1252.8		83.8	

2400ZQX-125

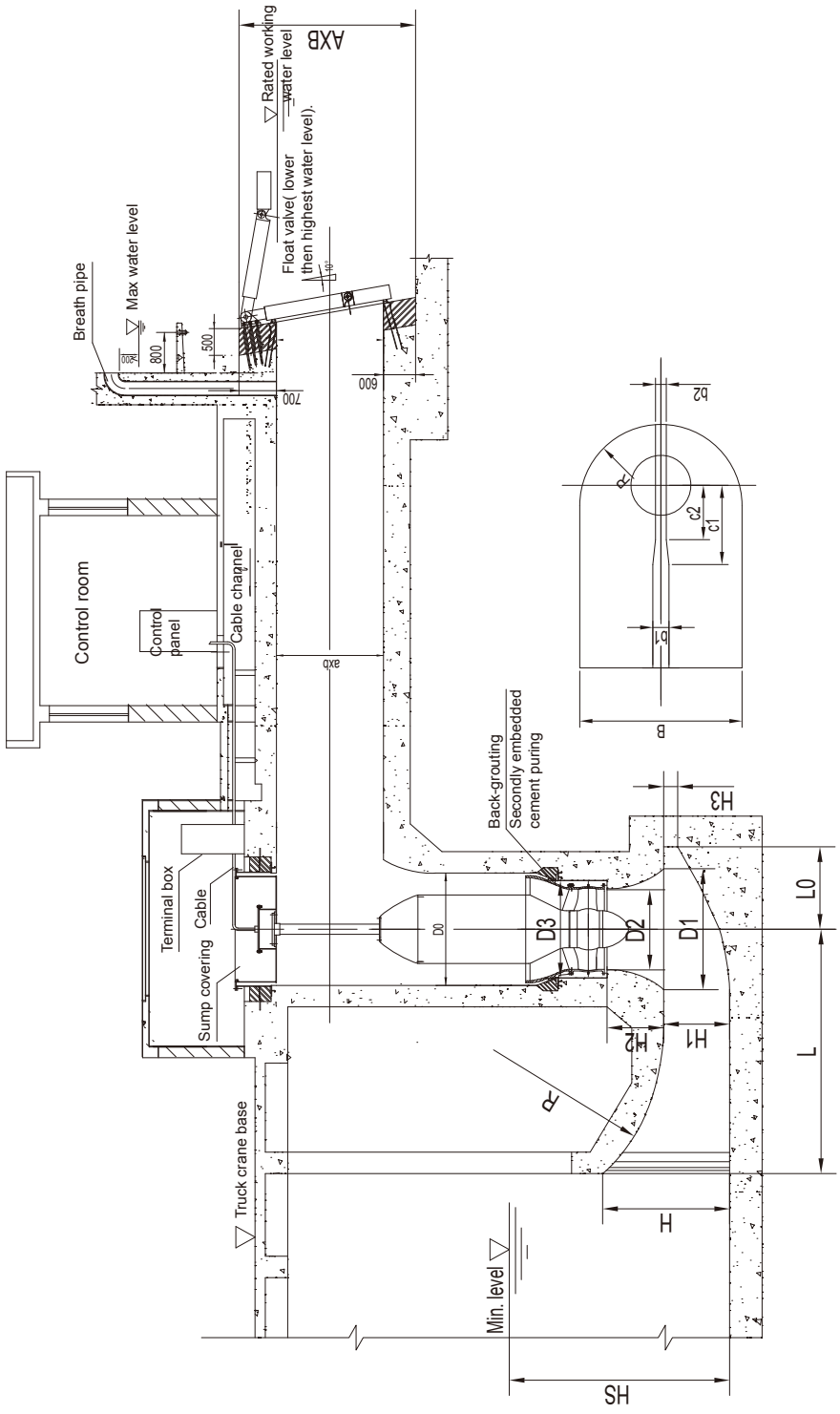


2400ZQX-125 Performance parameter list

Blade angle	Capacity Q (m^3/h)	Capacity Q (l/s)	Head H (m)	Speed n (r/min)	Power P (kW) Shaft Power	Power P (kW) Motor Power	Efficiency η (%)	Impeller diameter (mm)
-4°	57291.1	15914.2	1.85	176.5	357.4	710	80.8	2350
	52236	14510	2.75		458.9		85.3	
	41704.6	11584.6	4.48		646.1		78.8	
-2°	70139.5	19483.2	1.85		437.6	900	80.8	
	64663.2	17962	2.85		586		85.7	
	50972.4	14159	4.85		854.9		78.8	
0°	82777.3	22993.7	2.07		577.9	1150	80.8	
	76248	21180	3.15		758.4		86.3	
	61293.2	17025.9	5.09		1078.9		78.8	
+2°	92045.2	25568.1	2.45		760.5	1300	80.8	
	84673.1	23520.3	3.25		875		85.7	
	70982.3	19717.3	5.09		1249.4		78.8	
+4°	100470.2	27908.4	3.15		1067.3	1500	80.8	
	96257.5	26738.2	3.6		1116.2		84.6	
	85936.7	23871.3	4.92		1462.1		78.8	

6. Large submersible axial/mixed flow pump dustpan and elbow type flow channel concrete prefabricated wellhole installation dimensions

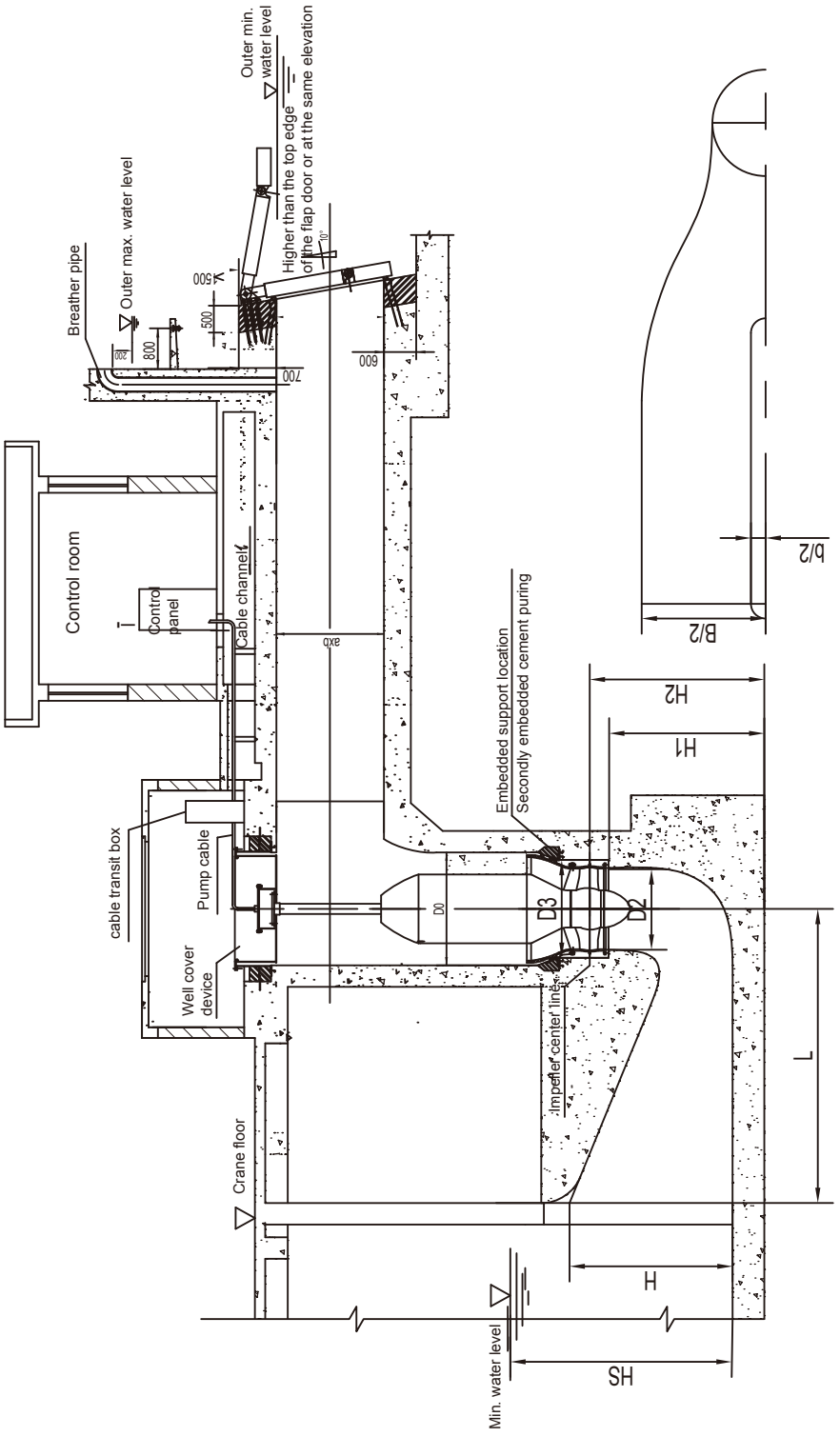
1200-2400 diameter large submersible pump dustpan type inlet flow channel cement wellhole installation dimensions drawing



Large submersible axial/mixed flow pump dustpan and elbow type flow channel concrete prefabricated wellhole installation dimensions table

Item	Model	n(r/min)	HS	ΦD0	ΦD1	ΦD2	ΦD3	H	H1	H2	H3	B	L	L0	C1	C2	R	R1	b1	b2	axb
1	1200ZQ	490	3700	1700	1423	955	1250	1527	780	679	165	2590	2910	970	1260	866	2748	1293	300	100	1400x1000
2	1400ZQ	370	4200	1800	1760	1180	1600	1889	960	840	204	3200	3600	1200	1562	1071	3400	1600	300	100	1600x2200
3	1600ZQ	295	4700	2100	2120	1427	1700	2280	1160	1015	246	3867	4350	1450	1887	1294	4108	1933	400	200	1800X2400
4	1600ZQC	295	5000	2300	2259	1540	1900	2424	1230	1078	260	4100	4620	1540	2000	1375	4363	2053	400	200	1800X2400
5	1800ZQX	245	5200	2400	2552	1712	2000	2738	1392	1277	296	4640	5220	1740	2371	1553	4929	2320	400	200	1800X2400
6	2000ZQX	215	5800	2800	2933	1968	2400	3418	1600	1467	340	5333	6000	2000	2725	1785	5666	2667	400	200	2400X3000
7	2400ZQX	176.5	6500	3200	3447	2350	2750	3699	1880	1644	400	6276	7050	2350	3058	2097	6658	3133	400	200	2800X3400
8	1200HQ	490	3370	1750	1320	886	1500	720	720	630	155	2400	2700	900	1171	800	2550	1200	300	100	1400x1000
9	1300HQ	490	3540	1800	1423	969	1600	1527	776	678	165	2587	2910	970	1262	866	2748	1293	300	100	1400x1000
10	1400HQ	370	3760	2000	1687	1150	1700	1810	920	805	195	3070	3450	1150	1497	1026	3258	1533	300	100	1600x2200

1200-2400 diameter large submersible pump elbow type inlet flow channel cement wellhole installation dimensions drawing



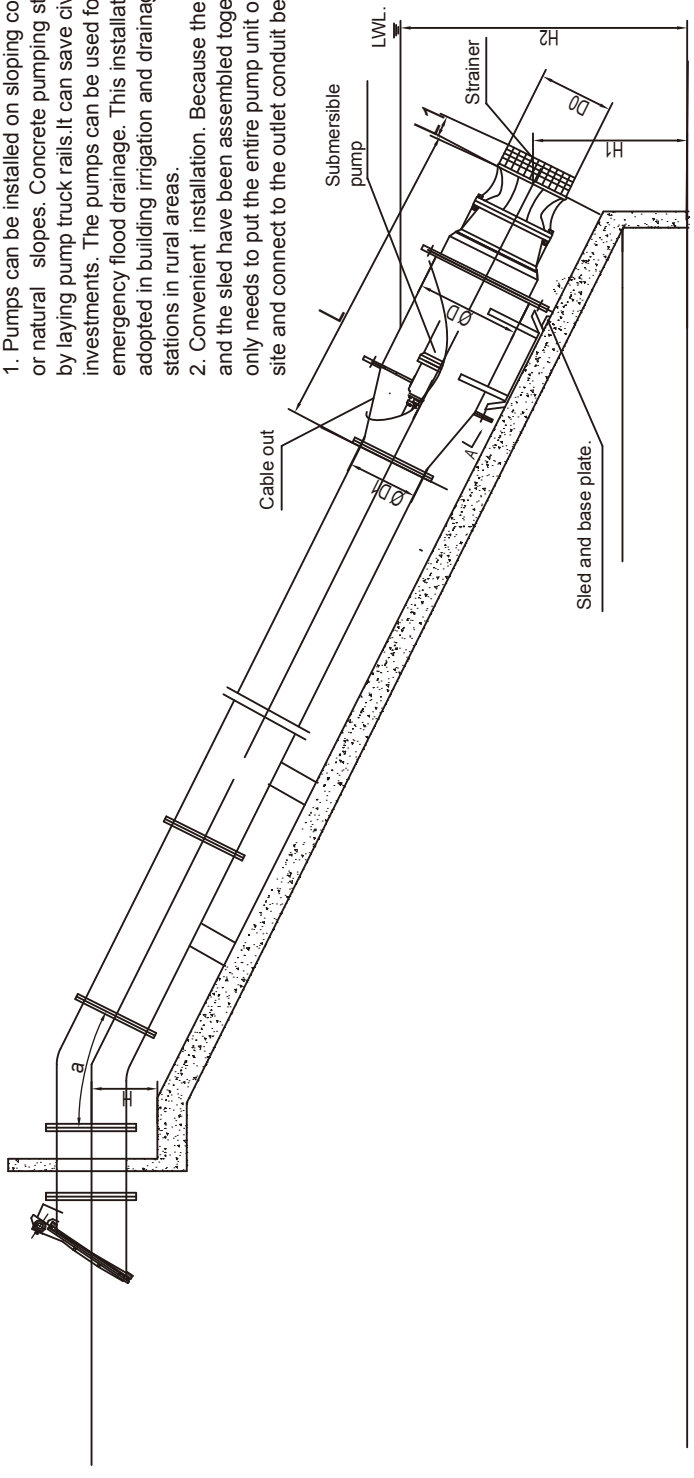
1200-2400 diameter large submersible axial/mixed flow pump elbow typeflow channel concrete prefabricated wellhole installation dimensions

No.	Model	Speed(r/min)	HS	ΦD0	ΦD2	ΦD3	H	H1	H2	B	L	b1	axb
1	1200ZQ	490	3700	1700	955	1250	1940	1533	1700	2260	3500	300	1400x1000
2	1400ZQ	370	4200	1800	1180	1600	2400	1896	2103	2795	4330	300	1600x2200
3	1600ZQ	295	4700	2100	1427	1700	2900	2292	2541	3378	5232	400	1800X2400
4	1600ZQC	295	5000	2300	1540	1900	3080	2434	2699	3588	5557	400	1800X2400
1	1800ZQX	245	5500	2400	1712	2000	3480	2750	3049	4054	6278	400	1800X2400
2	2000ZQX	215	5800	2800	1968	2400	4000	3161	3505	4659	7216	400	2400X3000
3	2400ZQX	176.5	6500	3200	2350	2750	4700	3714	4119	5475	8479	400	2800X3400
5	1200HQ	490	3370	1750	886	1500	1800	1422	1577	2096	3247	300	1400x1000
6	1300HQ	490	3540	1800	969	1600	1940	1533	1700	2260	3500	300	1400x1000
7	1400HQ	370	3760	2000	1150	1700	2300	1817	2015	2679	4149	300	1600x2200

7. Application of Submersible Pumps Installed in Sled Type

Sled-type Installation Dimensions for 300-900 (caliber) Submersible Axial/Mixed Flow Pumps

Advantages of sled-type installation for submersible pumps:
1. Pumps can be installed on sloping concrete foundations or natural slopes. Concrete pumping station can be saved by laying pump truck rails.It can save civil engineering investments. The pumps can be used for flood control and emergency flood drainage. This installation method can be adopted in building irrigation and drainage pumping stations in rural areas.
2. Convenient installation. Because the submersible pump and the sled have been assembled together at factory, it only needs to put the entire pump unit on the site and connect to the outlet conduit before pumping.



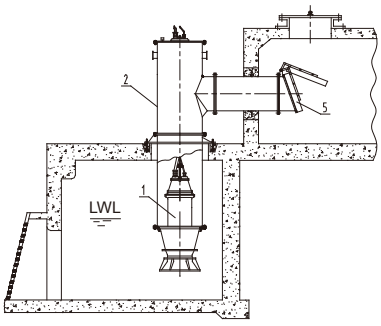
Sled-type Installation Dimensions for 300-900 (caliber) Submersible Axial/Mixed Flow Pumps

Item	Pump code	H	H1	H2	D	D0	D1	L	L1	a
1	300ZQ	320	300	1050	450	300	300	1900	150	30
2	350ZQ	360	810	1170	500	450	400	2100	170	
3	500ZQ	450	890	1340	700	670	500	2800	190	
4	600ZQ	620	940	1560	850	850	600	3200	220	
5	700ZQ	700	1020	1720	950	850	800	3500	220	
6	700ZQC	800	1120	1920	1050	980	800	3500	220	
7	800ZQ	850	1200	2050	1150	1020	1000	3600	250	
8	900ZQ	900	1240	2140	1350	1050	1200	3800	250	
9	400HQ	360	810	1170	600	450	400	2500	170	
10	500HQ	450	890	1340	800	650	600	3000	190	
11	600HQ	620	940	1560	900	750	600	3100	220	
12	700HQ	700	1020	1720	1100	850	800	3500	220	

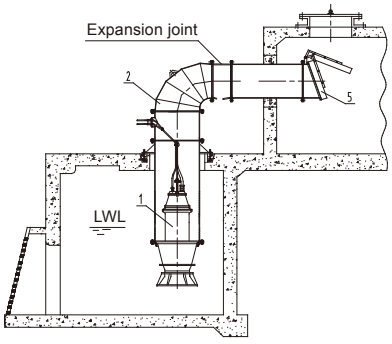
Sled-type pump performance reference to the corresponding submersible pump, we will deliver final drawing when customer decide to order.

8. Other application for different installation form in actual project

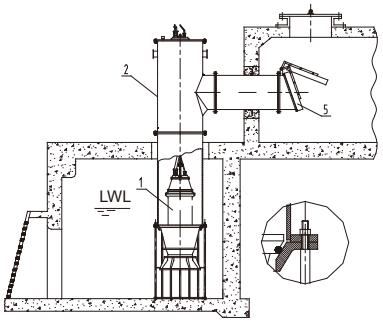
Submersible pump installation form
(all carried out in actual project)



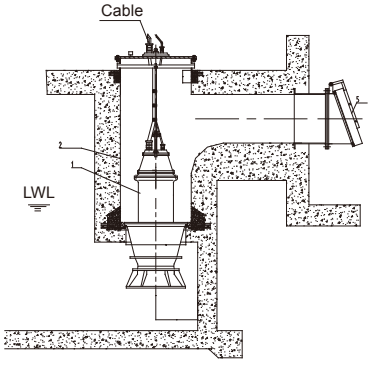
A Wellhole hang



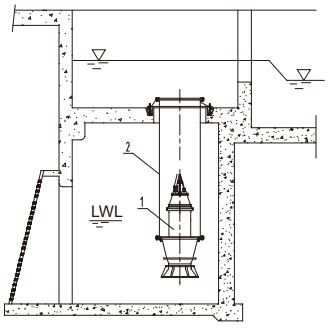
B Elbow hang



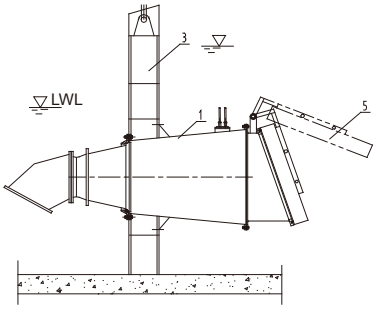
C Wellhole on the ground



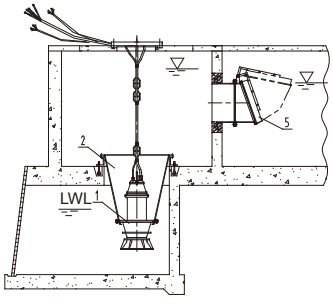
D Cement wellhole



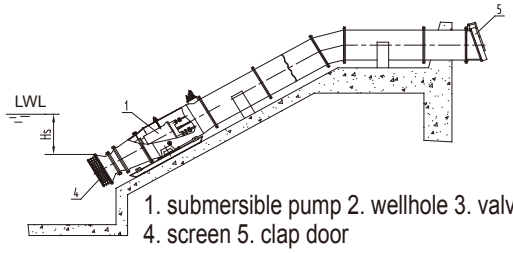
E Open Ⅰ



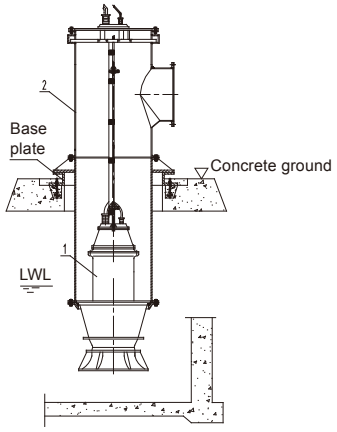
F Valve installation



G Open Ⅱ
(Used for low head installation)



1. submersible pump 2. wellhole 3. valve
4. screen 5. clap door

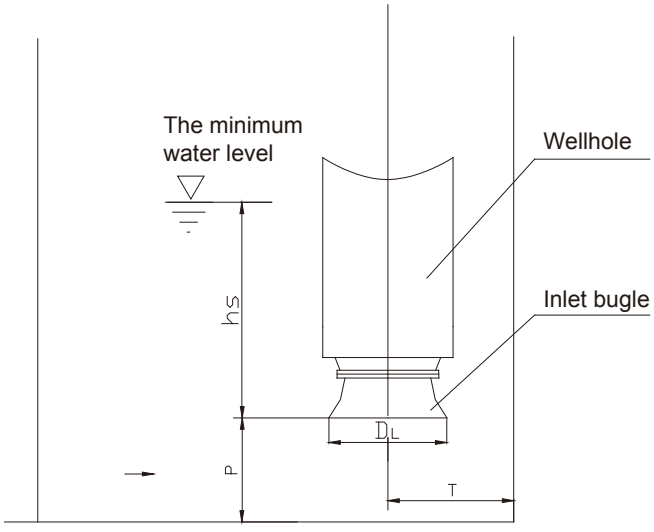


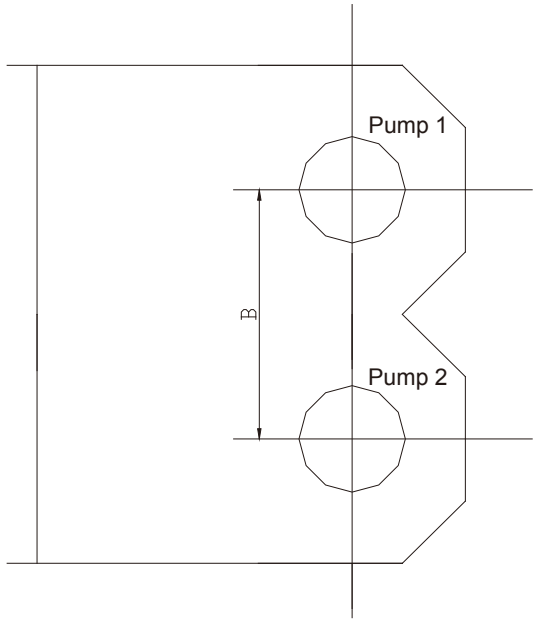
Ⅰ Wellhole hang dry type installation

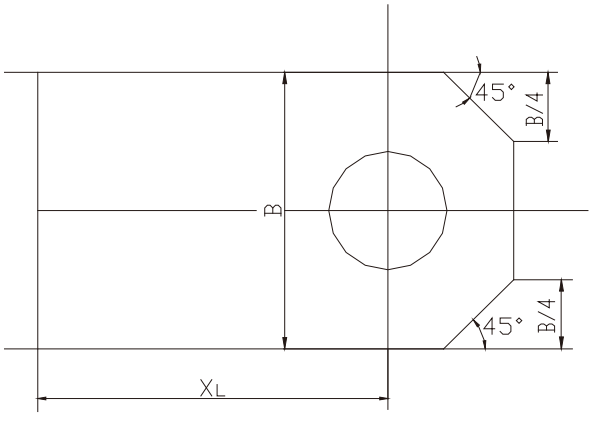
Note:The fist four kinds of installations is attached with dimensions drawing and table A,D,E,I,installation forms are advised.
The other installation forms dimensions will be supplied when asked.

9. Open flow hydraulic deisign reference

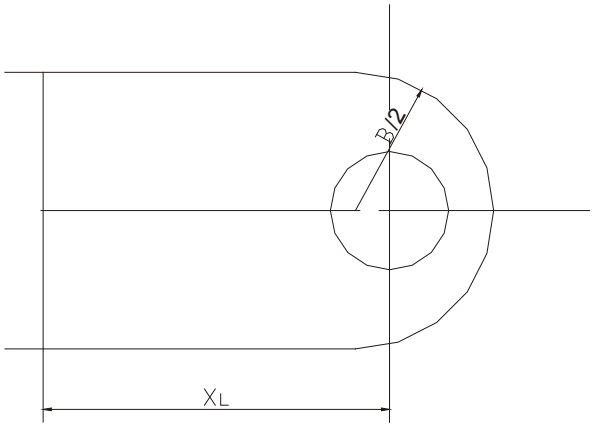
Open suction boxes (suction sumps) have been widely used in small and medium-sized pumping stations due to their simple structure and easy construction. Researchers both at home and abroad have paid much attention to the hydraulic design of this kind of suction box, and have conducted many experimental studies. Many researchers propose their design rules for open suction sumps in the form of empirical coefficients, which are based on experimental results. However, these rules proposed by different researchers vary wildly, and there has not been a unified or optimal hydraulic design rule so far.







Polygonal inlet pool



Half circle inlet pool

Dimensions of suction sump	Japanese Society of Mechanical Engineers	British Hydromechanics Research Association	American Hydraulic Institute Standards (HIS)	Field measurement at Liyang Shuangqiao Station	Recommendation	Use conditions
Sump width B/D_L	2.0-2.5	2-3	2.6-2.8	2.0-2.5	2.0-2.5	Take smaller value for small pumps, bigger value for large pumps.
Pump spacing B/D_L	2.0-2.5	2-3	2.6-2.8	2.0-2.5	2.0-2.5	Take smaller value for small pumps, bigger value for large pumps.
Clearance from the floor P/D_L	0.5-0.75	0.5-0.75	0.52-0.59	0.5-0.7	0.5-0.7	Take smaller value for small pumps, bigger value for large pumps.
Back wal distance T/D_L	0.8-1.0	0.75	1.2-1.4		0.5-0.75	
Sump length X_L/D_L		4.0		8.0	5-8	

Bell mouth diameter, DL, is generally taken as the basic parameter of hydraulic design for open suction boxes (suction sumps) for the following reason. Water flow first flows through the cylindrical surface between the bell mouth and the baseplate of the suction box, and then enters the pump through the bell mouth. Thus, it is natural to
take bell mouth diameter as the basic parameter in determining suction box dimensions. However, the problem is that the suction bell has not yet standardizedand bell mouth diameter is variable. The ratio of bell mouth diameter to impeller diameter is different in different cases. Taking DL as the basic parameter may cause confusion
to the hydraulic design rule, and thus is inappropriate. If the suction bell can be standardized, then it would be the same to take bell mouth diameter or impeller diameter as the basic parameter of hydraulic design forsuction
boxes. Otherwise, impeller diameter shall be taken as the basic parameter.
In this sample specification, our company takes impeller diameter, D0, as the basic parameter in determining various parameters.
According to Optimal Hydraulic Design for Suction Boxes of Pumping Stations, recommendations for open suction boxes are as follows:
(1) Clearance from the floor P

Clearance from the floor is recommended to be P = (0.68-1.2) D0, and it is recommended to take a smaller value for large bell mouth diameter (1.67 D0) anda larger value for small bell mouth diameter (1.46D0). For larger or smaller bell mouth diameter, P should be taken within this range.

(2) Back wall distance T

Basically, back wall distance is unaffected by bell mouth diameter. When water is pumped through the suction bell, some water flow will be inevitably sucked into the pump from the back of the suction bell, so it is necessary to keep a certain back wall distance. However, an overly large back wall distance would increase water flow's degree of freedom in the back wall space, as well as increase the possibility of vortex strip, so it needs to increase immersion depth. According to the results of optimizing calculation, T should be (0.8-1.0) D0 to meet the requirements.

(3) Sump width B, pump spacing B

The suction sump should be wide enough to ensure some water flow can be sucked into the pump smoothly from both the sides and the back of the suction bell, but an overly-wide suction sump would not only be meaningless, but also increase civil engineering investment. The optimal sump width is determined by bell mouth diameter to some extent. According to the results of optimizing calculation, the recommended sump width is (3.5-4.5) D0. It is recommended to takea smaller value for a large bell mouth diameter anda larger value for a small bell mouth diameter.

(4) Sump length XL

Under the condition of water flowing in a forward direction, it is necessary to make the suction sump long enough to ensure water flow becomes generally uniform before arriving at the suction bell. Sump length could be determined by the upper structure of the pump house, and it is generally (7.0-8.0) D0. Under the condition of water flowing
in a side direction, it needs to increase sump length or take necessary current controlling measures. Determination of sump length has nothing to do with bell mouth diameter.

(5) Plane shape

As revealed by calculation results, plane shape of the suction sump has little influence on the pump's working condition. However, according to experimental data, plane shape has some effect on the suction sump's hydraulic loss, with a heart-shaped sump having the smallest hydraulic loss and rectangular sump having the largest hydraulic
loss.

10. ZQ,HQ series submersible axial flow mixed flow pump weight table

Item	Model	Maximum weight (kg)	Maximum axial force(N)
1	300ZQ-50	500	4900
2	300ZQ-70	500	4400
3	300ZQ-85	500	3500
4	300ZQ-100	500	2500
5	350ZQ-50	600	10100
6	350ZQ-50D	600	4650
7	350ZQ-70	600	8950
8	350ZQ-70D	550	4100
9	350ZQ-85	550	7200
10	350ZQ-85D	400	3300
11	350ZQ-100	550	5150
12	350ZQ-100D	400	2400
13	350ZQ-125	550	4800
14	350ZQ-125D	400	2200
15	350ZQ-160	450	3350
16	500ZQ-50	990	23100
17	500ZQ-50D	750	12900
18	500ZQ-70	990	20450
19	500ZQ-70D	700	11400
20	500ZQ-85	860	16300
21	500ZQ-85D	700	9100
22	500ZQ-100	830	11700
23	500ZQ-100D	700	6550
24	500ZQ-125	830	10950
25	500ZQ-125D	700	6100
26	500ZQ-160	650	7600
27	500ZQ-160D	550	4250
28	600ZQ-50	2100	28900
29	600ZQ-70	1900	25600
30	600ZQ-85	1900	20400
31	600Q-100	1800	14650
32	600ZQ-125	1850	13700

Item	Model	Maximum weight (kg)	Maximum axial force(N)
33	600ZQ-160	1700	9500
34	700ZQ-50	2500	41000
35	700ZQ-50D	2000	26500
36	700ZQ-70	2200	36200
37	700ZQ-70D	1900	23300
38	700ZQ-85	2200	28900
39	700ZQ-85D	1900	18600
40	700ZQ-100	2000	20700
41	700ZQ-100D	1800	14000
42	700ZQ-125	2200	19400
43	700ZQ-125D	1600	12500
44	700ZQ-160	1900	13400
45	700ZQ-160D	1500	8800
46	700ZQ-50C	3000	56500
47	700ZQ-70C	2900	49900
48	700ZQ-85C	2750	39900
49	700ZQ-100C	2500	28700
50	700ZQ-125C	2600	26700
51	700ZQ-160C	2500	18600
52	800ZQ-50	5500	64000
53	800ZQ-70	4900	56800
54	800ZQ-85	4200	45500
55	800ZQ-100	4000	32400
56	800ZQ-125	3800	30500
57	800ZQ-160	3500	21100
58	900ZQ-50	6000	72900
59	900ZQ-70	5500	64400
60	900ZQ-85	5500	51300
58	900ZQ-100	5000	36900
59	900ZQ-125	4000	34400
60	900ZQ-160	3600	23900

Item	Model	Maximum weight (kg)	Maximum axial force(N)
61	1000ZQ-50	6800	91300
62	1000ZQ-50	6800	91300
63	1000ZQ-70	6500	80700
64	1000ZQ-85	6000	64500
65	1000ZQ-100	6000	46100
66	1000ZQ-125	5500	43200
67	1000ZQ-160	5000	29900
68	1200ZQ-50	12000	117000
69	1200ZQ-70	10100	101500
70	1200ZQ-85	9800	72500
71	1200ZQ-100	9500	58700
72	1200ZQ-125	8800	51000
73	1200ZQ-160	8000	37500
74	1400ZQ-50	18000	155750
75	1400ZQ-70	16300	135000
76	1400ZQ-85	14000	96500
77	1400ZQ-100	13200	78200
78	1400ZQ-125	12700	67700
79	1600ZQ-70	15000	187100
80	1600ZQ-85	14000	130500
81	1600ZQ-100	15800	106000
82	1600ZQ-125	15000	91700
83	1600ZQ-70C	18500	231700
84	1600ZQ-85C	17900	165650
85	1600ZQ-100C	17000	134200
86	1600ZQ-125C	16500	116350
87	1800ZQX-70	20000	260150
88	1800ZQX-85	19000	185850
89	1800ZQX-100	18000	150500
90	1800ZQX-125	17000	130600
91	2000ZQX-70	23000	350000
92	2000ZQX-85	22000	250000
93	2000ZQX-100	21000	201900
94	2000ZQX-125	20000	175300

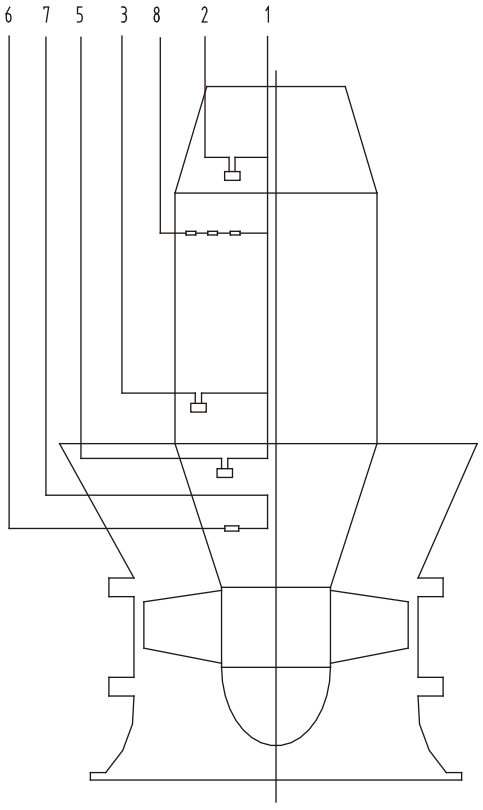
Item	Model	Maximum weight (kg)	Maximum axial force(N)
95	2400ZQX-85	25000	320000
96	2400ZQX-100	23500	185150
97	2400ZQX-125	22000	160650
98	350HQ-40	500	6800
99	350HQ-50	600	9700
100	400HQ-40	1000	20000
101	400HQ-50	800	13900
102	500HQ-40	1700	31600
103	500HQ-40D	1400	17800
104	500HQ-50	1600	22000
105	500HQ-50D	1400	12400
106	600HQ-40	2000	45700
107	600HQ-40D	1700	25700
108	600HQ-50	1900	31800
109	600HQ-50D	1500	17900
110	700HQ-40	3900	57100
111	700HQ-40D	2800	36800
112	700HQ-50	3200	39700
113	700HQ-50D	2600	25600
114	800HQ-40	4300	80800
115	800HQ-40D	3700	52100
116	800HQ-50	4400	56200
117	800HQ-50D	3500	36200
118	900HQ-40	4800	96200
119	900HQ-40D	4400	66300
120	900HQ-50	4600	66900
121	900HQ-50D	4200	46100
122	1000HQ-40	7300	101000
123	1000HQ-50	6500	88000
124	1000HQ-35C	7800	113450
125	1000HQ-50C	7300	82150
126	1200HQ-40	12000	142450
127	1200HQ-50	12600	103250
128	1400HQ-50	13000	156200

11. Sensor Specificaiton

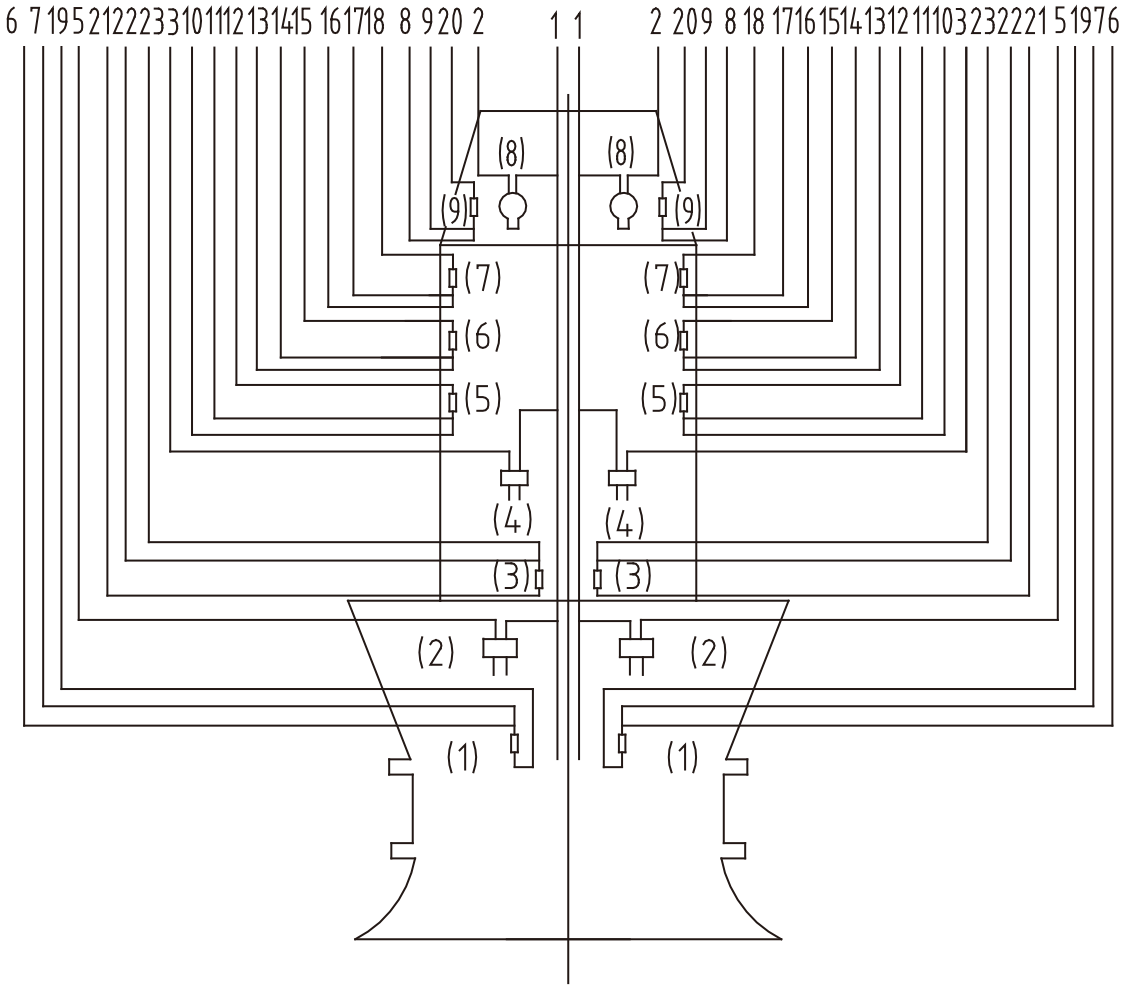
Sensor Placement and Function of Low voltage motor

Control cable number	1-8	1-2	1-3	1-5	6-7
Sensor	Thermal sensor JW6A (120℃)	Guard electrode againstwater intrusion in junction box	Moisture sensor in motor casing	Guard electrode against water intrusion in oil chamber	Bearing temperature sensor PT100
Resistance in normal state	0	≥ 120kΩ	≥ 120kΩ	≥ 30kΩ	~100Ω at 0℃
Resistance in fault state	Act when winding temperature is above 120℃	Water intrusion in junction box, resistance< 120kΩ	Water intrusion in motor, resistance<120kΩ	Water intrusion in oil chamber with water content up to 10%, resistance of oil -water mixture <30kΩ	~136Ω at 95℃

Notes:
(a) The sensors listed above are the basic configurationof low-pressure pumps. Customers can also make some changes to them, but shall specify the changes in thecontract.
(b) 3350ZQ，400HQ and below dimension pump only equip Wiring thermal sensor, Terminal box moisture sensor, and Motor Casing moisture sensor.



High voltage motor Protection Sensor specifications.



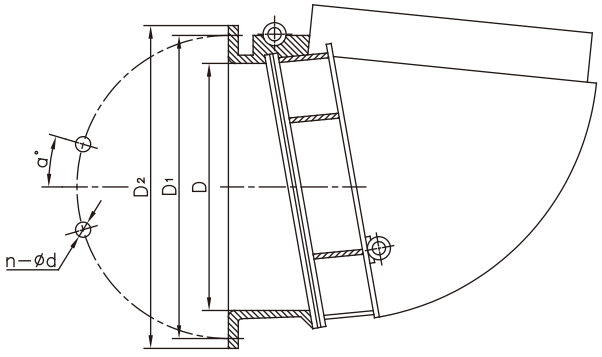
Monitoring and Protective Sensors (with backups)

Sensor No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Cable No.	6, 7, 19	1, 5	21, 22, 23	1, 3	10, 11, 12	13, 14, 15	16, 17, 18	1, 2	8, 9, 20
Sensor	PT 100 temperature sensor	Electrode	PT 100 temperature sensor	Electrode	PT 100 temperature sensor	PT 100 temperature sensor	PT 100 temperature sensor	Electrode	PT 100 temperature sensor
Function	Monitor thrust bearing temperature	Monitor oil chamber temperature	Monitor lower bearing temperature	Protect motor, prevent water intrusion in motor	Monitor phase-A temperature, and protect motor	Monitor phase-B temperature, and protect motor	Monitor phase-C temperature, and protect motor	Alarm against water intrusion in junction box	Monitor upper bearing temperature
Resistance in normal state	~100Ω at 0℃	≥ 30kΩ	~100Ω at 0℃	≥ 120kΩ	~100Ω at 0℃	~100Ω at 0℃	~100Ω at 0℃	≥ 120kΩ	~100Ω at 0℃
Resistance in fault state	~136Ω at 95℃	<30kΩ when relative humidity ≥ 95%	~136Ω at 95℃	<120kΩ	~151Ω at 135℃	~151Ω at 135℃	~151Ω at 135℃	<120kΩ	~136Ω at 95℃

12. Optional Accessory Equipments

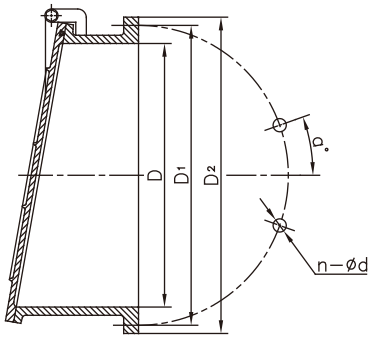
1. Float Valve

Clap door outside and connection dimensions
B. Additional weight type clap door outside drawing and connection dimensions table
A. Float valve dimenssion



D	D_1	D_2	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-Φ 27	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-Φ 30	15	448
1300	1430	1500	12-Φ 30	15	665
1400	1520	1575	12-Φ 30	15	891
1600	1760	1830	12-Φ 36	15	Contact with manufacturer
1800	1970	2045	44-Φ30	4.1	

B. Weight valves dimenssion



D	D_1	D_2	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-Φ 27	15	154
700	810	860	12-Φ 27	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-Φ 30	15	388
1300	1430	1500	12-Φ 30	15	649
1400	1520	1575	12-Φ 30	15	856
1600	1760	1830	12-Φ 36	15	Contact with manufacturer
1800	1970	2045	44-Φ30	4.1	

2 Intelligent Comprehensive Protector for Submersible Pumps

1. The intelligent controller for submersible pumps is mainly used to monitor overheating and water intrusion, which are caused by faults during the operation of submersible pumps, so as to ensure the normal working of the equipment. The controller is provided with 485 output interface which enables multiple point communications and data processing through computers in real time. The controller is equipped with SCM. Besides its powerful functions, designers take a series of anti-jamming measures to cope with the special working circumstances of submersible pumps, so as to ensure its reliable operation. The input end of the sensor has high voltage impact resistance, and thus it is applicable in the working environment of pumps. This controller is very suitable for being used together with pumps.

1.1 Intelligent controller for submersible pumps

The controller uses PT 100 platinum resistance as the bearing temperature sensor, JW6A as the winding temperature alarm sensor, and electrode switches to guard against water intrusion in the motor, oil chamber, and junction box. The controller has two working modes: monitoring mode and quitting mode.
Monitoring mode: under this mode, the customer can set bearing temperature limit on the controller. When the bearing temperature exceeds the limit, the controller will give an alarm. Whenthe winding temperature (JW6A) exceeds the limit or water intrudes in the motor, oil chamber, or junction box, the indicator in the alarm category display box will turn on. Meanwhile, the corresponding alarm relays, KS and KJ, will shut, and the signal can be used to connect indicators and control devices in the external circuit.After the fault is removed, the alarm sound can be stopped by pressing the reset button on the front panel. There is a reset output terminal on the back panel as well, which can be used to connect with the external reset button.
Quitting mode: under this mode, the controller canonly indicate bearing overheating, winding overheating (JW6A), and water intrusion in the motor, oil chamber, and junction box. The controller can show the real-time temperature of the bearing, and the alarm category display box can tell fault category. However, the corresponding relays, KJ and KS, will not output signals (no action), and there will be no alarming sound.

1.2 Intelligent controller for submersible pumps II

The controller uses PT 100 platinum resistance thermometers as the bearing temperature sensorand the winding temperature alarm sensor, and has an alarm function against water intrusion in the motor, oil chamber, and junction box. The customer can set temperature limitsrespectively for the bearing and the winding. When the bearing temperature or winding temperatureexceeds the limit or water intrudes into the motor, oil chamber, or junction box, the indicator in the alarm category display box will turn on. Meanwhile, the corresponding alarm relays, KS and KJ, will shut, and the signal can be used to connectindicators and control devicesin the external circuit. After the fault is removed, the alarm sound can be stopped by pressing the reset button on the front panel. There is a reset output terminal on the back panel as well, which can be used to connect to the external reset button.
Quitting mode: under this mode, the controller can only indicate bearing overheating, winding overheating, and water intrusion in the motor, oil chamber, and junction box. The controller can show the real-time temperature of the bearing and the winding, and the alarm category display box can tell fault category. However, the corresponding relays, KJ and KS, will not output signals (no action), and there will be no alarm sound.

1.3 Intelligent controller for submersible pumps III

The controller usesJW6A as the winding temperature alarm sensor and electrode switches to guard against water intrusion in motorand junction box. The controller has two working modes: monitoring mode and quitting mode.
Monitoring mode: under this mode, when the winding temperature exceeds the limit or water intrudes into the motoror junction box, the controller will give an alarm. When the winding temperature exceeds the limit or water intrudes in the motor or junction box, the indicator in the alarm category display box will turn on. Meanwhile, the corresponding alarm relays, KS and KJ, will shut, and the signal can be used to connect indicators and control devices in the external circuit. After the fault is removed, the alarming sound can be stopped by pressing the reset button on the front panel. There is a reset output terminal on the back panel as well, which can be used to connect to the external reset button.
Quitting mode: under this mode, the controller can only indicate winding overheating (JW6A), and water intrusion into the motor and junction box. The alarm category display box can tell fault category. However, the corresponding relays, KJ and KS, will not output signals (no action), and there will be no alarm sound.

13. Optional accessory components list of mixture flow and axial flow pump

Item	Name	Installation form								Remarks
		Wellhole hang type	Wellhole on the ground	Elbow hang type	Cement wellhole type	The course	Open I	Open II	Valve installation	
1	Submersible axial mixed flow pump	★	★	★	★	★	★	★	★	Pump model,flowrate,head,voltage, installation form noted when ordering.
2	Plate ring	★	★	★	★		★	★	★	Q235-A,HT200 or 1Cr18Ni9Ti
3	SS wellhole	★	★	★		★	★	★		Q235-A or 1Cr18Ni9Ti
4	Suction hoods					★				
5	Diffuser pipe	☆	☆	☆	☆	☆	☆	☆	☆	
6	Through-wall pipe	☆	☆	☆	☆	☆		☆	☆	
7	Drains					☆				
8	Cement wellhole				★					
9	Elbows,			★						
10	Wellhole cover	★	★		★			★		
11	Lifting device	★	★	★	★		★	★		
12	Cable grips,	★	★	★	★	★	★	★	★	
13	Sled assembling,					★				
14	Pump on car assembly					★				
15	Gaskets,	★	★	★	★	★	★	★	★	
16	Standard fasteners,	★	★	★	★	★	★	★	★	Common steel or stainless steel
17	Anchor bolts,	★	★	★	☆		★	★	☆	Common steel or stainless steel
18	Float valve	☆	☆	☆	☆	☆	☆	☆	☆	Steel gravity type clap door or buoyancy tank clap door
19	Rubber joints,	☆	☆	☆	☆	☆	☆	☆	☆	
20	Special start-up cabinets ,	☆	☆	☆	☆	☆	☆	☆	☆	
21	Terminal box,	☆	☆	☆	☆	☆	☆	☆	☆	
22	Integrated protection,	★	★	★	★	★	★	★	★	
23	Power cable,	☆	☆	☆	☆	☆	☆	☆	☆	The general length of cable is 10m or mark out the length.
24	Control cable,	☆	☆	☆	☆	☆	☆	☆	☆	
25	Water level controller,	☆	☆	☆	☆	☆	☆	☆	☆	
26	Mechanical seal,	☆	☆	☆	☆	☆	☆	☆	☆	Mark out the quantity of spare parts when ordering.
27	O type seal ring	★	★	★	★	★	★	★	★	
28	Bearing	☆	☆	☆	☆	☆	☆	☆	☆	
29	Special tools	☆	☆	☆				☆	☆	

Note: ★ means it is requisite.
☆ means it is optional according to customer.

14. Instructions for Ordering

1. When ordering, you shall specify the name and modelof the submersible pump, number of units, installation method, range of complete sets, starting mode, head, flow rate, power, voltage, water quality, and materials ofmain parts. Note that the head means total head including all the head loss of the pump unit. If you are not sure about the total head, please provide the net head and installation method and ask our company to calculate the accurate total head and determine the model of the required submersible pump.

2. Please refer to the performance curves and tables in this specification to check the maximum head and minimum head. Please consult our company if the value is beyond this range.

3. When choosing installation method, it is recommended to give preference to the dimensions specified in this specification for steel shaft installation. Please consult our company if you want to change the dimensions in the table or choose other dimensions for other installation methods.

4. Please note the range of complete sets specified in this specification. It is recommended to give preference to must-buy accessories and choose the optional accessories when required.

5. Starting modes include direct start, reduced-voltage autotransformer start, and soft start. Our company provides various starting cabinets with adedicated pump protector, automatic level controller, and logic sequence controller for pumping stations withmultiple pumps.

6. If not otherwise specified, the frequency of the power supply for the pump is 50Hz and the voltage is generally 380V. It is recommended to choose 6kV and 10kV for pumps with power exceeding 315kW. Please indicate in the contract that the requirements for ordering 50Hz and 660V products are acceptable. You can discuss special products with us which haveanother working frequency (say 60Hz) or voltage.

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