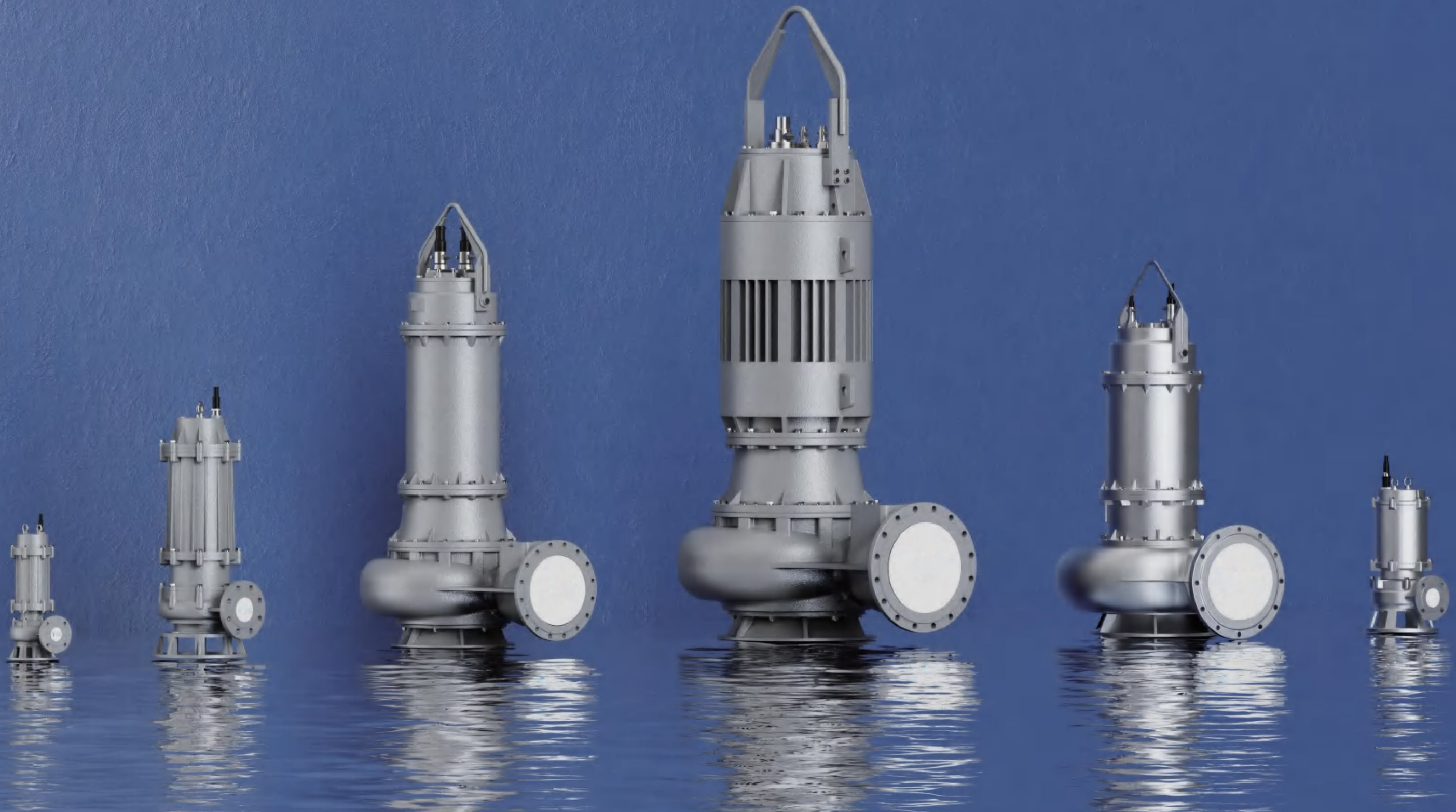


VATTURE[®]

Expert In Energy- Efficient
Submersible Sewage Pumps





防爆合格证附页

序号: ZTMEEx25.0713X
Certificate No.

1. 总装图号: WQB-0.75、WQB-1.1、WQB-1.5、WQB-2.2、WQB-3、WQB-4、WQB-5.5、WQB-5.5-4P、WQB-7.5、WQB-7.5-4P、WQB-11、WQB-15;
2. 外壳防护等级: IP68 (6m, 1h);
3. 型号规格中①表示电动机额定功率 (kW), ②表示极数, 2 极不标注;
4. 可代表型号: WQB-0.75、WQB-1.1、WQB-1.5、WQB-2.2、WQB-3、WQB-4、WQB-5.5、WQB-5.5-4P、WQB-7.5、WQB-7.5-4P、WQB-11、WQB-15;
5. 额定电压: AC380V, 频率: 50Hz;
6. 使用屈服强度 $\geq 450\text{MPa}$ 的紧固件;
7. 隔爆接合面详细尺寸见图纸, 其图纸最大间隙比标准要求最大值小;
8. 隔爆型潜水泵用电机的安装、维护、保养按照说明书进行操作。

浙江省机电产品质量检测所有限公司
Zhejiang Mechanical & Electrical Products Quality Inspection Institute Co., Ltd.
机械工业排灌机械产品质量检测中心(杭州)
Mechanical Industry Drainage and Irrigation Machinery Product Quality Testing Center (Hangzhou)

注: 1. 本证仅对符合送检样品的产品有效, 持证者有责任保证产品符合标准规定。
Notes: This certificate is only valid for the products which are in conformity with the test sample.
The holder of this certificate has responsibility to ensure the products complying with relative standard(s).
2. 公司地址: 浙江省杭州市滨江区庙后王路125号
Center Add: No. 125, Miao Hou King Bureau, Binjiang District, Hangzhou City, Zhejiang Province.
3. 防爆合格证查询(联系电话: 0571-63807335; 公司网址: www.ztme.com.cn)



防爆合格证

CONFORMITY CERTIFICATE OF EXPLOSION-PROOF

防爆合格证编号: ZTMEEx25.0713X
certificate NO.

报告编号: 18W250542
Report NO.

制造单位: 杭州西子泵业有限公司

Company

产品名称: 隔爆型潜水电泵用电动机

Name of product

型号规格: WQB-①-②

Type of product

防爆标志: Ex db IIB T4 Gb

Ex-Marking

技术文件: Q/XZ05-2025

Technical documents

总装图号: 见附页

The final assembly drawing NO.

备注: 见附页。

Note(s)

经对上述产品图样及技术文件的审查和样品检验, 确认符合下列标准:

GB/T 3836.1-2021 《爆炸性环境 第1部分: 设备 通用要求》

GB/T 3836.2-2021 《爆炸性环境 第2部分: 由隔爆外壳“d”保护的设备》

证书有效期限: 2025 年 12 月 26 日至 2030 年 12 月 25 日

何朝晖

主 任

2025 年 12 月 26 日

发证日期

浙江省机电产品质量检测所有限公司
Zhejiang Mechanical & Electrical Products Quality Inspection Institute Co., Ltd.
机械工业排灌机械产品质量检测中心(杭州)
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Center Add: No. 125, Miao Hou King Bureau, Binjiang District, Hangzhou City, Zhejiang Province.
3. 防爆合格证查询(联系电话: 0571-63807335; 公司网址: www.ztme.com.cn)

VATTURE

Catalogue

Vatture pumps submersible sewage pump series overview.....	P. 1–9
WQA high–efficiency submersible sewage pump	P. 10–27
WQE economic submersible sewage pump	P. 28–41
WQF stainless steel submersible sewage pump	P. 42–53
WQA–QG cutting submersible sewage pump	P. 54–64
Ordering, Installition and After–sales service guidelines	P. 66–71

VATTURE PUMPS

Submersible Sewage Pump Series Overview

For 30 years,Vatture Pumps has been dedicated to the research and develop-ment as well as manufacturing of submersible sewage pumps. Our pump products have been successfully applied in various industrial and municipal fields around the world. With the aim of providing better reliability and higher unit efficiency to our customers, we have, on the basis of summariz-ing over 30 years of experience in submersible pump production and manufacturing, drawn on and introduced advanced international hydraulic model design technology, and carried out comprehensive optimization design in mechanical structure, sealing, protection and other aspects. We meet the highest demands of customers in terms of efficiency, service life, maintenance and economic benefits. The high standards of Xizi submers-ible sewage pumps are based on decades of hydraulic design experience and extensive professional knowledge. Our goal is to provide customers with world-class pump products and services.

Xizi submersible sewage pumps are divided into four series:

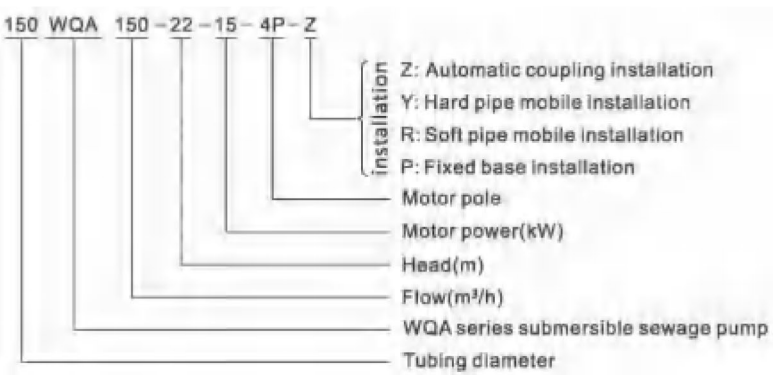
- WQA : High-efficiency submersible sewage pump
- WQE : Economic submersible sewage pump
- WQF : Stainless steel submersible sewage pump
- WQA-QG : Cutting submersible sewage pump

The products comply with the national standard GB/T24674
"Submersible sewage and sludge pumps".

Scope of Application:

Municipal engineering, sewage treatment, building construc-tion, water conservancy projects, industrial wastewater discharge, environmental remediation, and other fields.

Model definition:



Product Features:

- The impellers of the WQA/WQE/WQF models all adopt a closed structure, with the main forms being: ① Double-channel type ② Blade type
The double-channel impeller has good performance in passing through debris; the blade-type impeller is energy-saving and has high hydraulic efficiency.
The impeller of the WQA-QG model is of a semi-open structure.

- The pump unit has a compact structure and short shaft extension to reduce vibration and noise. It has undergone strict dynamic and static balance testing to reduce vibration value to the lowest point,and extend the expectancy life of bearing and mechanical seal.

- The cable adopts rubber flexible cable with good oil resistance and excellent mechanical performance,which can work continuously for a long time under 40℃.The interception capacity of the cable has sufficient margin to make the service life longer.The oil-resistant rubber flexible cable meets national standards of JB/T8735.2 and GB/T5013.4.
The water-jet cutting cable prevents accidental water immersion in motor cavity .The pump end cable should be properly fixed to avoid dragging of the sealing device of lead-out wire of the motor upper cover cable .

- The motor adopts high-performance squirrel-cage induction motor, which is specially designed and manufactured for submersible pumps. It Implements GB755 standards. Protection class: IP68. Insulation class: F (standard), H (optional)

- The shaft seal adopts single-end mechanical seal to completely isolate motor and pump. It is installed in series up and down to improve sealing reliability,and ensure the long-term and stable operation of pump.The designed service life of mechanical seal is 10,000 hours.

- The bearing adopts lifelong maintenance-free rolling bearings.The upper bearing is deep groove ball bearing or cylindrical roller bearing, which is mainly used to bear radial force. The lower bearing is mainly used to bear radial force and axial force. Given that various pump models will generate different radial force and axial force,some are designed as a double-row angular contact ball bearing, and some are combinations of a diagonal contact ball bearing and a cylindrical roller bearing or deep groove ball bearing to ensure sufficient load margin, making the pump unit run smoothly. The designed service life of the bearing is 50,000 hours.

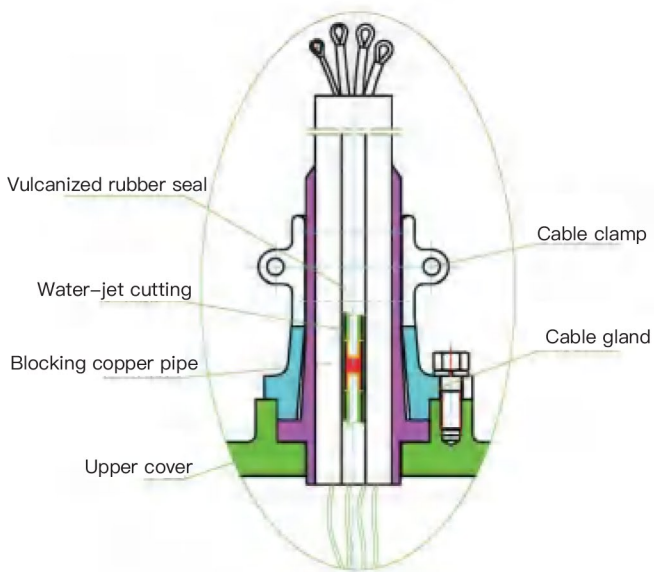
- Oil chamber: Adopt 32# engine oil which can lubricate mechanical seal and cool down the bearing.Executive standard is GB443-89. Add oil till it overflows from the filling hole to ensure that there is a certain gap in the oil chamber, so that the pressure will not rise significantly when oil temperature rises. This is to protect the mechanical seal in oil chamber, thereby protecting the motor.

- Temperature measuring element (thermal protector is equipped for 3kW and below): Each phase winding is pre-embedded with temperature measuring element PTC (115℃).When the pump is in abnormal working condition,and the motor winding temperature rise reaches the setting value, the temperature measuring element will work,the "overheating" indicator light on control cabinet will be turned on, the pump will stop working.This reminds the operator to check and find out overheating causes and solutions in time. The pump can recover by itself after the winding temperature drops.

- Water leakage probe: The water leakage probe is used for leakage detection. When the mechanical seal or the sealing at impeller side is leaking, and the water amount in oil chamber is large to a certain extent, the two electrodes of the probe will be turned on and an alarm signal will be issued(the indicator lights on), to remind the operator to check mechanical seal in time and check whether the oil in oil chamber need to be replaced.

- Float switch: The float switch is installed in the empty cavity next to the bearing cavity on the lower side of motor. It is used to check whether the mechanical seal in oil chamber is damaged and whether the motor seal is leaking. When the water amount in the float switch cavity reaches a certain level, the float switch will float and send an alarm signal through control cabinet (the indicator lights on), to

Structural diagram of water-jet cutting cable



Technical descriptions:

- Vatture submersible sewage pumps can be equipped with flange coupling which implements GB/T17241.6-2008 standard.The standard configuration for coupling outlet flange DN250 and below is PN6 and for DN300 and above is PN10. Pump outlet flange pressure rating is detailed in related pump page.

For WQA/WQF submersible sewage pump 7.5kW and below,pump can be equipped with stirring (JY)
Some models of WQE can be used as stirring pumps. For details, please refer to the sample.

- The standard motor rated voltage of submersible sewage pump is 380V, and the rated frequency is 50Hz.
①11kW and above can be customized with frequency conversion electric pump unit.
②The 60Hz electric pump unit can be customized.
③Electric pump units with three-phase voltage below 690V can be manufac-tured.
④Single-phase 220V can be manufactured for the pumps 2.2kW and below. (except WQE)
⑤Frequency conversion can be used for the pumps 7.5kW and below.
⑥Three-phase 220V can be manufactured for the pumps 3kW and below.

- Wiring method and starting method of motor winding lead wire
①The Y-shaped wiring method is used for 3kW and below.The stator lead-out wire and a main cable have been connected in the wiring cavity with this method.It can use direct start.
②The internal delta (Δ) wiring method is used for 4-315kW. when the pump leaves the factory, the winding wires and 1, 2, 3, and 4 main cables have been connected in the wiring cavity according to power level. Based on the power grid capacity and load permit on customer's site, direct start, external electronic soft starter start or auto-coupling step-down start can be adopted accordingly. (Please refer to wiring diagram for the number of main cable)
③Single-phase 220V electric pump (0.55-2.2kW) adopts capacitor opera-tion, double capacitor + centrifugal switch start.
④If there are other requirements (eg: Star Delta Start Y-), please specify separately when placing an order.

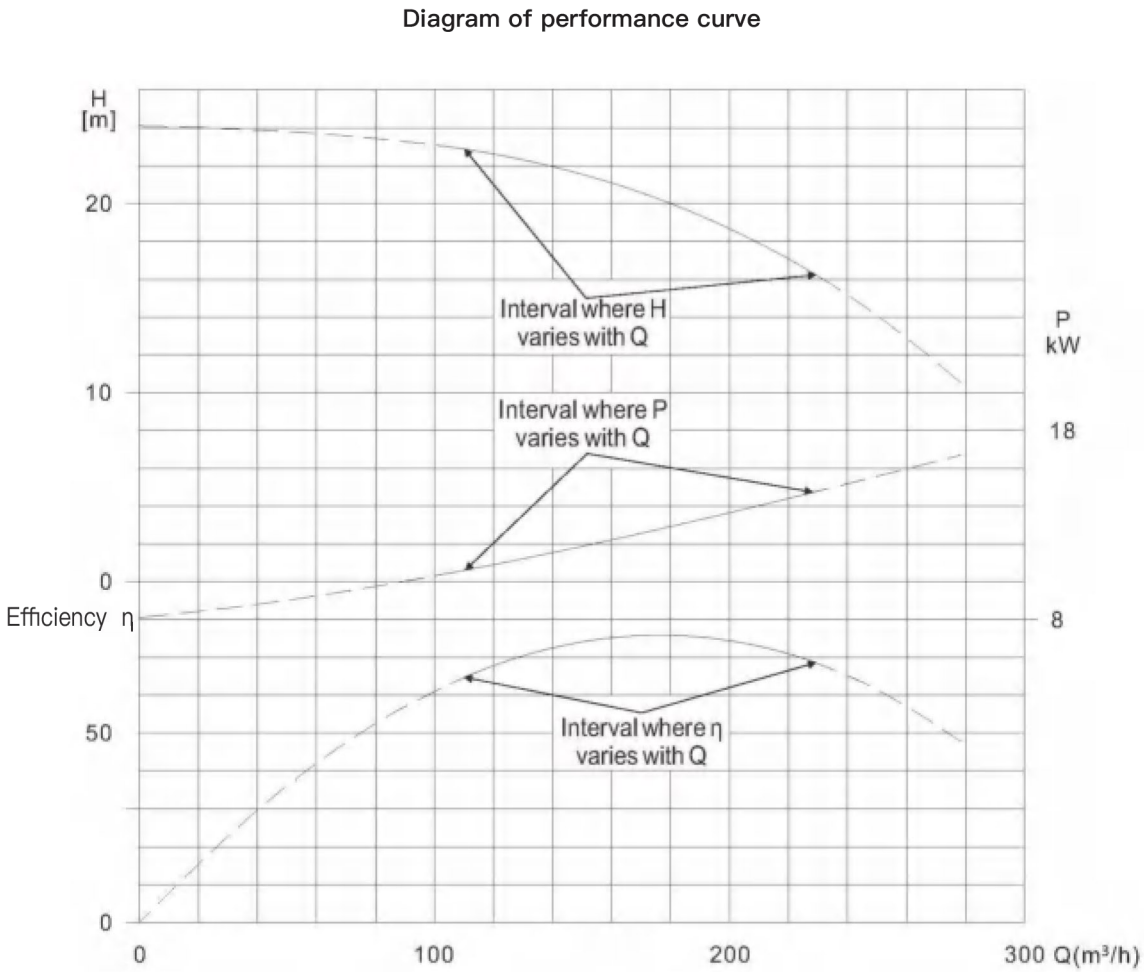
- Pump rotation direction
The impeller rotates counterclockwise looking from pump inlet.The impeller rotates clockwise looking from the motor.

- When the liquid level difference is large on customer's site , use two float switches to control the start/stop liquid level for main pump or large pump, while using one float switch for small pump or standby pump under super high liquid level.

- The terminal box can be installed on the spot when electric control cabinet is far away. When threading pipe (user owned) needs to be laid, confirm the inner diameter of the threading pipe according to the outer diameter of the cable. 7.When the liquid level difference is large on customer's site , use two float switches to control the start/stop liquid level for main pump or large pump, while using one float switch for small pump or standby pump under super high liquid level.
8. The terminal box can be installed on the spot when electric control cabinet is far away. When threading pipe (user owned) needs to be laid, confirm the inner diameter of the threading pipe according to the outer diameter of the cable.

VATTURE PUMP

Diagram and description of performance curve



- The solid line part of the curve in the figure represents the reasonable pump operation range where pump efficiency is relatively high and economical.

When pump is running below the leftmost side of the solid line:

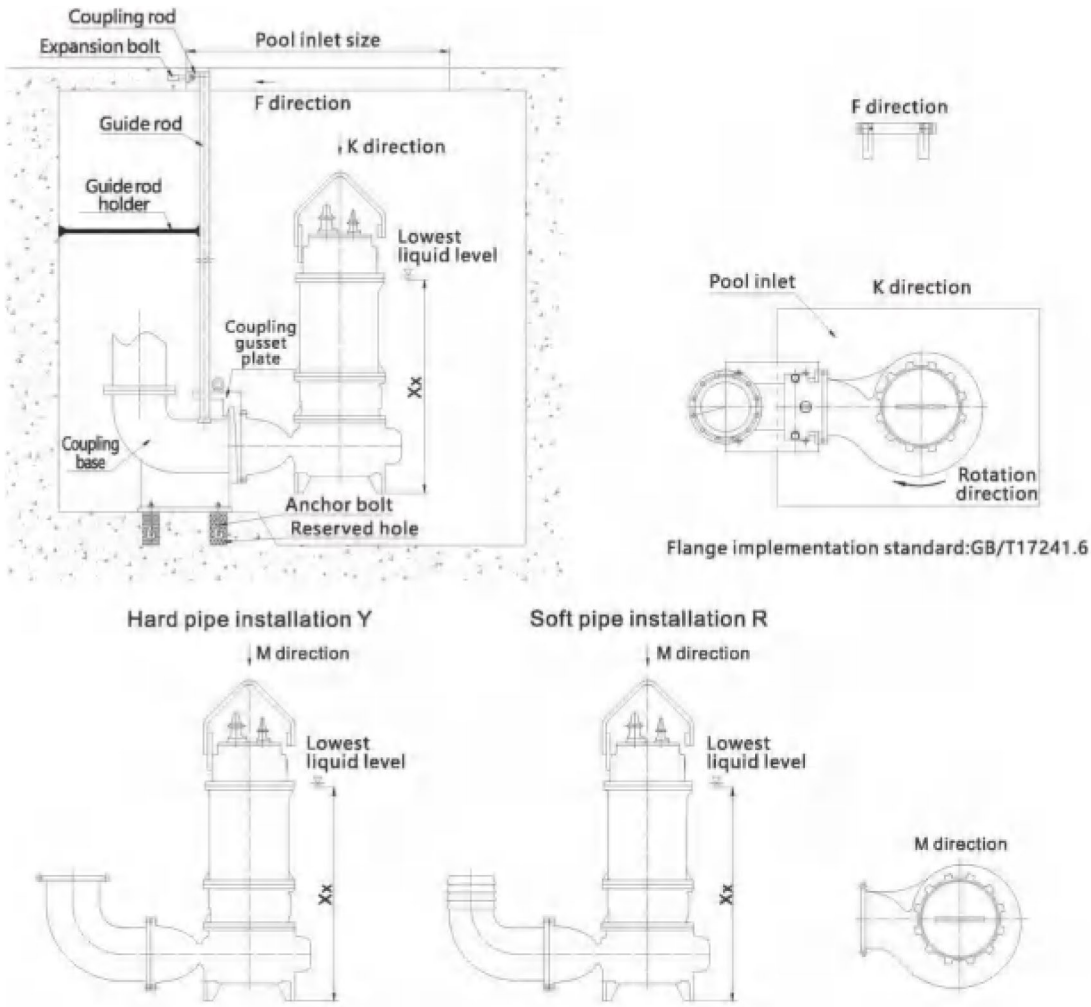
- ① Under long-term low-flow operation, the pump will be always in a state of holding pressure with high pump temperature, excessive vibration and shortened life. When the deviation from the reasonable working range is large, the pump will be damaged to a certain extent after long-term operation.
- ② Large radial force will be generated, bearing and mechanical seal damage is accelerated, rolling keys or even shaft breakage risk will be caused.
- ③ The efficiency will drop and electric energy will be wasted.

When pump is running higher than the rightmost side of the solid line:

The pump will have problems like vibration, noise, cavitation, even over-current and motor burning , etc.

Installation dimension drawing

Dimension drawing of coupling installation

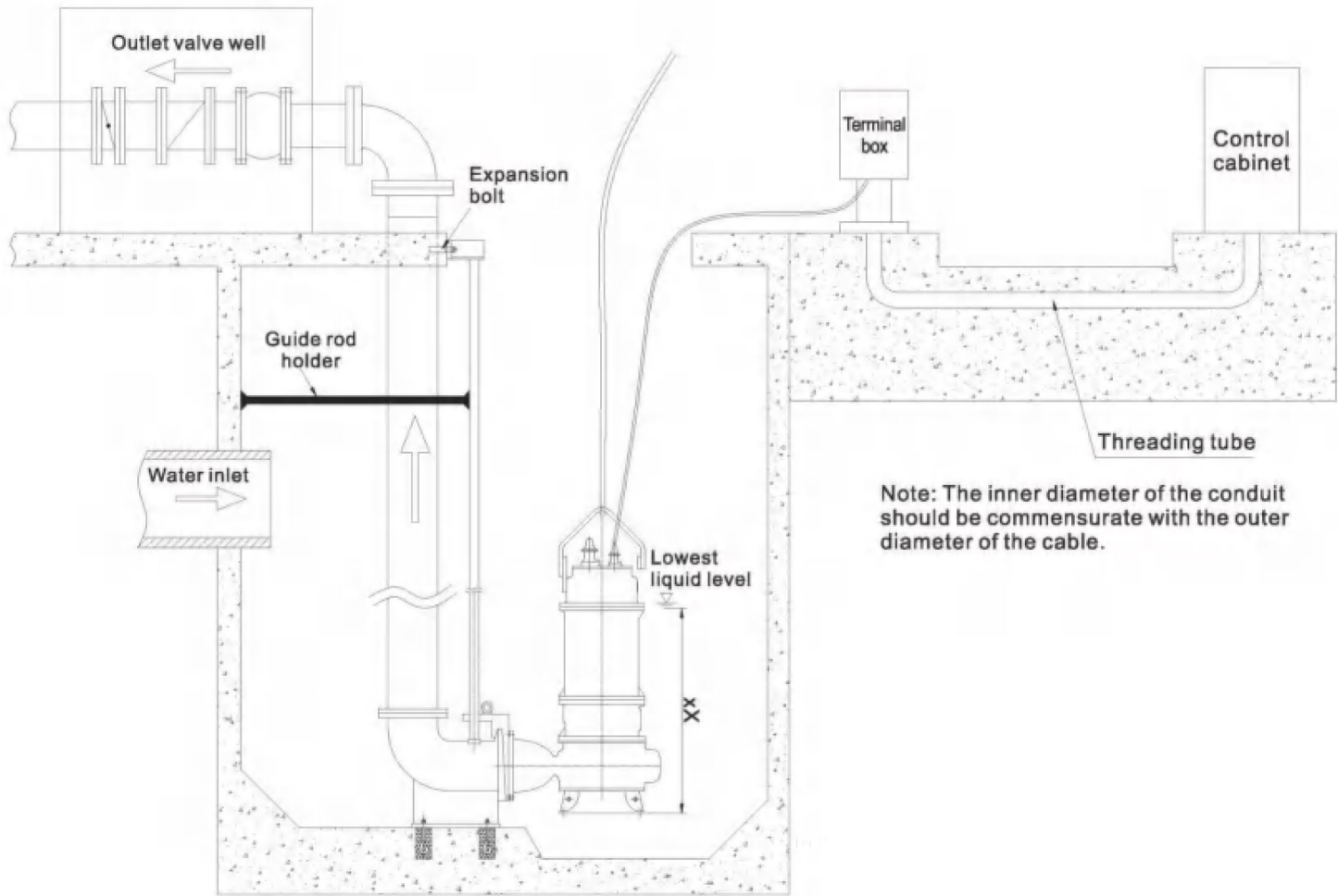


- The coupling railings are all fixed with expansion bolts which implement JB/ZQ4763-2006 standard. When the length of guide rod is bigger than 5 meters, it is recommended that the user fix the guide rod every 3 meters.
- Calculate guide rod length according to the "pool depth" shown on the figure, and refer to the attached table for the length.
- ▽ indicates the minimum liquid level of pump operation. The pump operation liquid level should be higher than the minimum liquid level. It is best to submerge the pump completely under allowable site conditions, so that the motor can be fully cooled by the medium. The minimum liquid level can be controlled by float switch, ultrasonic level gauge, etc.
- The dimension of coupling base and pump outlet flange shall comply with GB/T17241.6 standard.

VATTURE PUMP

Long-distance layout plan and cable specifications

Long-distance layout plan: When the control cabinet is far away from pump room, a terminal box can be installed, which makes the operation more convenient.



Installation method

Fixed base installation (P):

Fix the base on the foundation, fix the base with anchor bolts, and connect the outlet pipe. It is inconvenient to repair the single pump after running;

Mobile installation (Y, R):

It is used for first aid or maintenance and construction, flexible and convenient to operate. It can be operated by connecting a hose or a hard pipe with the pump base support. It can also be suspended for use with a sufficiently rigid drainage pipeline.

Automatic coupling installation (Z):

The coupling device includes: ① Coupling base, ② Coupling gusset, ③ Guide rod, ④ Coupling pull rod.

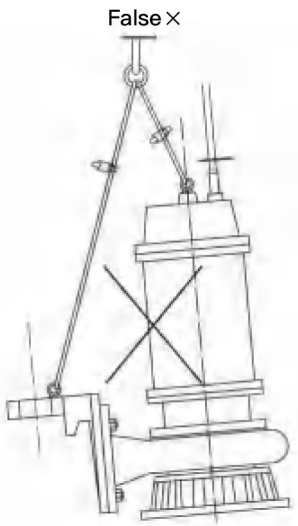
Automatic coupling installation: The coupling device links the pump and pipeline without fasteners, making the connection and disconnection of the pump and coupling base simple.

Operation essentials:

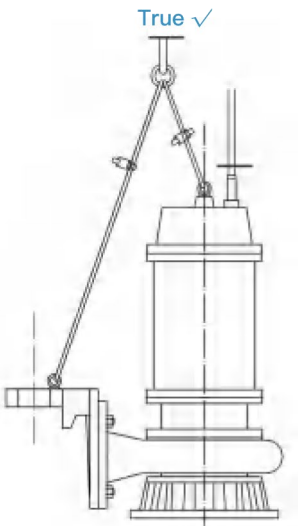
- ① Lay the cement foundation and reserve the anchor bolt holes according to the installation drawing.
- ② Fix the coupling base, coupling rod and guide rod, and the coupling base needs to be poured twice.
- ③ Connect the coupling gusset plate and pump body flange with bolts. Whether to install or lift the pump, you only need to lift the lifting chain and let the gusset plate semi-circular hole slide along the guide rod.
- ④ When installing with a coupling device, the pump must be adjusted to a vertical position using short chains. The lifting point must ensure the pump moves vertically up and down before hoisting can be performed. (As shown in the schematic below.)



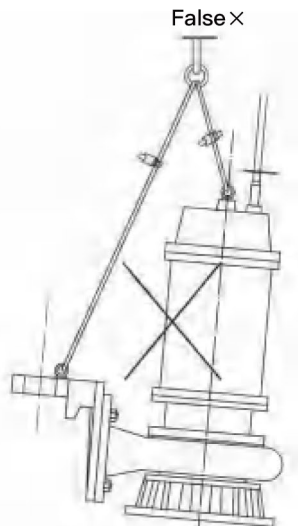
Installation structure diagram of automatic coupling



This situation can't lift pump



Adjust the pump to a **Vertical State** using short chains.



This situation can't lower pump

VATTURE PUMP

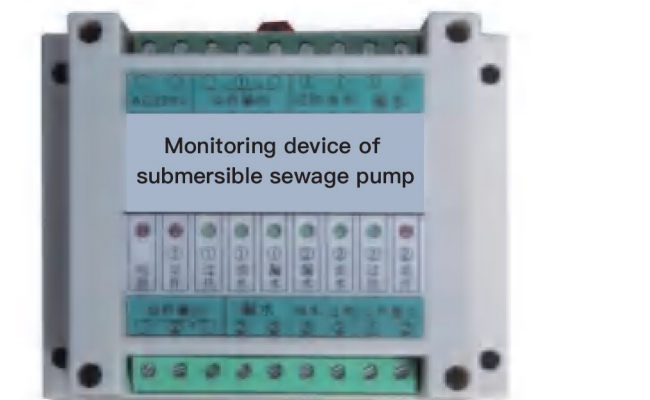
Parameter table of submersible motor

Special monitoring device of submersible sewage pump

● Purpose and function

XIZI submersible pump monitoring device (comprehensive protector) is an optional accessory specially designed for submersible pump protection device by our company, to realize the comprehensive protection function of the submersible pump.

It has monitoring and protection functions of motor stator temperature overheating (overheating), oil chamber water leakage (oil and water),wiring cavity and motor cavity water leakage(water leakage). It can monitor 2 pumps at the same time.

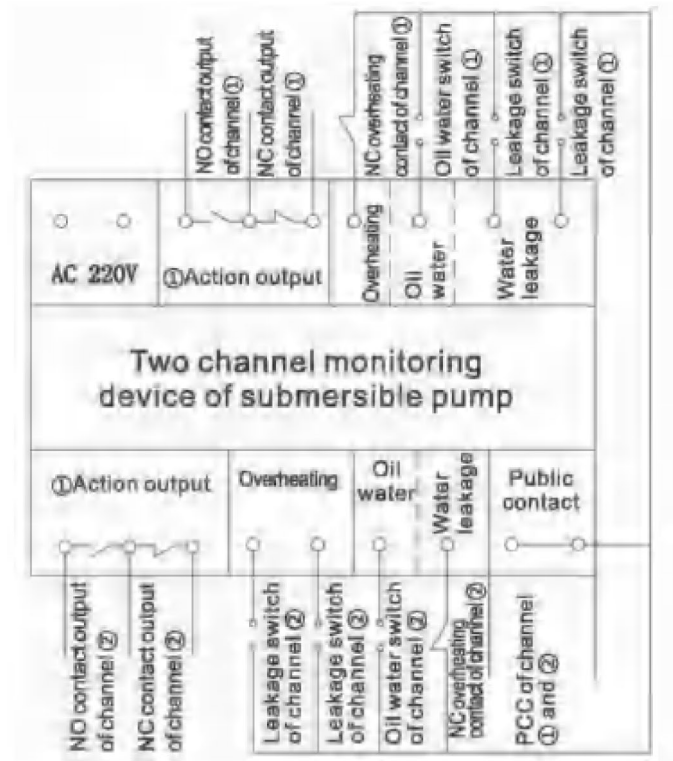


● Specifications and technical parameters

- ① Specifications
Length × width × height: 115×90×40
Installation size: 105×70,4– φ5; or install on the rail
- ② Working environment
Ambient temperature: –20℃~50℃; Relative humidity≤85%RH; There is no corrosive gas in the surrounding environment
- ③ Power supply: AC220V / 50Hz

● Electrical principle and terminal wiring diagram

- 220V access "AC 220V"
- This product can monitor two water pumps at the same time. You can choose to connect to port ① or ② when there is only one pump.
- The common wires of the "overheating", "oil water", "leaking" lead–out wires and the PCC lead–out wires, form the respective protection and monitoring circuits (Refer to schematic diagram).
- "Action output" can be connected to "NO output" or "NC output" according to customer site.



● Points for attention.

The inside of the monitoring device is full of electronic circuits, and the insulation resistance value cannot be measured with a

Parameter table of submersible motor (380V / 50Hz)								
No.	Motor power (kW)	Pole number (P)	Rated current (A)	Power factor (cosψ)	Motor efficiency (%)	Locked–rotor current (A)	Rated torque (N•m)	Locked–rotor torque / Rated torque
1	0.55	2	1.8	0.82	73	8.1	1.87	2.2
2	0.75		2	0.83	75	10.9	2.53	2.2
3	1.1		2.5	0.84	77	17.4	3.71	2.2
4	1.5		3.6	0.84	79	23.4	5.03	2.2
5	2.2		4.9	0.85	81	32.8	7.38	2.2
6	3		6.4	0.87	83	46.1	9.96	2.2
7	4		8.2	0.88	85	58.7	13.24	2.2
8	5.5	2	11	0.88	86	80.3	18.09	2.2
		4	12	0.83	85	80.5	36.4	2.3
9	7.5	2	15	0.88	87	106.5	24.66	2.2
		4	16	0.84	87	107.1	49.63	2.3
10	11	2	22	0.89	88	156.8	35.81	2.2
		4	23	0.84	88	155.4	71.85	2.2
		6	25	0.78	87.5	154.7	108.2	2
		8	26	0.75	86.9	164.3	143.9	2
11	15	2	29	0.89	89	209.3	48.84	2.2
		4	30	0.85	89	223.5	97.97	2.2
		6	31	0.81	91.2	225.6	147.2	2
		8	34	0.76	88	219.8	196.2	2
12	18.5	2	35	0.9	90	254.3	60.24	2.2
		4	36	0.86	90.5	270.8	120.4	2.2
		6	37	0.83	90.7	275.9	180.7	2
		8	42	0.76	88.6	264.7	242	1.9
13	22	2	42	0.9	90	303.8	71.38	2
		4	43	0.86	91	319.5	143.2	2.2
		6	44	0.83	91.2	331.5	214.9	2
		8	48	0.78	89.1	308.9	287.8	1.9
14	30	2	58	0.93	90.3	364.2	97	2.2
		4	60	0.86	92	411.9	194.7	2.2
		6	61	0.84	91.5	408.8	292	2
		8	63	0.79	91	415.8	389.8	2
15	37	2	70	0.88	93.7	512.2	119.6	2
		4	71	0.87	92	501.2	239.6	2.2
		6	73	0.86	91.5	510	360.6	2.1
		8	78	0.79	91.5	502.9	480.7	2.0
16	45	2	82	0.91	92.3	622.2	145	2
		4	85	0.87	92.8	604.8	290.8	2.2
		6	86	0.86	92.5	597.8	438	2.1
		8	94	0.79	92	610.5	584.7	2.0
17	55	2	101	0.9	92.3	758.5	176.9	2
		4	104	0.87	92.6	741.6	355.8	2.2
		6	105	0.86	92.4	723.1	535.4	2.1
		8	114	0.81	92.3	728.7	714.6	1.8
18	75	4	140	0.87	93.1	993.6	483.6	2.2
		6	147	0.86	93.2	981.4	726.3	2
		8	152	0.81	92.8	977.5	974.5	1.8
19	90	4	167	0.89	93.5	1050	580	2
		6	172	0.87	93.5	1008	870	1.7
		8	180	0.82	93.1	1090	1161	1.9

VATTURE PUMP

No.	Motor power (kW)	Pole number (P)	Rated current (A)	Power factor (cosψ)	Motor efficiency (%)	Locked-rotor current (A)	Rated torque (N•m)	Locked-rotor torque / Rated torque
20	110	4	201	0.88	94.5	1200	710	1.8
		6	206	0.86	94.5	1230	1066	1.7
		8	217	0.82	94.1	1324	1420	1.9
21	132	4	241	0.88	94.8	1395	850	1.8
		6	244	0.87	94.5	1440	1280	1.8
		8	260	0.83	93.3	1927	1703	1.5
22	160	4	286	0.9	94.5	1800	1030	2.1
		6	294	0.88	94	1965	1550	1.8
		8	314	0.83	93.3	2204	2064	1.5
23	185	4	333	0.9	94.6	1947	1191	2.0
		6	340	0.88	94	2204	1792	1.6
		8	362	0.83	93.8	2625	2380	1.5
24	200	4	359	0.9	94.6	2112	1288	2
		6	368	0.88	94	2484	1937	1.6
		8	390	0.83	93.9	2835	2574	1.5
25	220	4	396	0.89	95	2758.7	1419.5	2.2
		6	404	0.88	94.2	2812	2132	1.8
		8	430	0.83	93.9	3118	2831	1.6
26	250	4	445	0.9	95	2664	1607	1.7
	250	6	460	0.88	94.4	3105	2424	1.8
	250	8	488	0.83	94	3548	3218	1.6
27	280	4	498	0.9	95	2988	1800	1.7
	280	6	510	0.89	94.4	3428	2715	1.8
	280	8	548	0.83	94	3975	3604	1.6
28	315	4	560	0.9	95	3360	2025	1.7
	315	6	570	0.89	94.5	3735	3054	1.8
	315	8	615	0.83	94	4298	4457.4	1.6

Parameter table of submersible motor (Single phase 220V / 50Hz)								
No.	Motor power (kW)	Pole number (P)	Rated current (A)	Power factor (cosψ)	Motor efficiency (%)	Locked-rotor current (A)	Rated torque (N•m)	Locked-rotor torque / Rated torque
1	0.55	2	5.2	0.92	70	15	1.88	1.7
2	0.75		5.4	0.92	72	20	2.56	
3	1.1		7.8	0.95	75	30	3.73	
4	1.5		10.2	0.95	76	45	5.1	
5	2.2		14.7	0.95	77	65	7.42	

Parameter table of submersible motor (Three phase 220V / 50Hz)								
No.	Motor power (kW)	Pole number (P)	Rated current (A)	Power factor (cosψ)	Motor efficiency (%)	Locked-rotor current (A)	Rated torque (N•m)	Locked-rotor torque / Rated torque
1	0.55	2	3.2	0.82	73	14.03	1.87	2.2
2	0.75		3.5	0.83	75	18.88	2.53	
3	1.1		4.4	0.84	77	30.14	3.71	
4	1.5		6.3	0.84	79	40.53	5.03	
5	2.2		8.5	0.85	81	56.81	7.38	
6	3	3	11	0.87	83	79.85	9.96	

WQA high-efficiency
submersible sewage pump ►

WQA

High-efficiency Submersible sewage pump



WQA Submersible Sewage Pump is an ultra-high-efficiency submersible sewage pump specifically developed for the wastewater industry. Utilizing internationally advanced hydraulic models, most models achieve "National Grade One Energy Efficiency" making it a true full-head pump that thoroughly solves the problem of overcurrent for customers. At the same time, comprehensive optimization has been carried out in mechanical structure, sealing, and protection, and high-quality motor materials are used to ensure unit stability. The WQA full series includes 182 models.

Customization Available According to Different Working Conditions:
Stainless steel material (WQAF) / Special anti-corrosion coating for seawater
Internal circulation cooling submersible sewage pump / External cooling jacket sewage pump / High-pressure pump

Scope of Application:
Municipal engineering, sewage treatment, building construction, water conservancy projects, industrial wastewater discharge, environmental remediation, and other fields.

Operating Conditions:
Flow Rate: 7 ~ 4200 m³/h
Head: 7 ~ 90 m
Medium Temperature: T ≤ 40°C
Medium Density: ≤ 1100 kg/m³; Solid phase volume ratio in the medium is less than 3%
Medium pH Range: 4 ~ 10
Motor Insulation Class: Class F (standard), Class H (optional)
Protection Class: IP68
Minimum Operating Liquid Level: See "▽▽" in the installation dimension drawing (without motor cooling system); if the user's water level is lower than "▽▽", please contact the company's technical department.
The maximum diameter of solids in the medium should be less than the minimum size of the flow channel. The allowable solid passing diameter is detailed in the specific pump model size table.
Standard cable length is 9 meters. If a specific cable length is required, it can be specified in the order (Note: Voltage drop must be calculated).

Product Advantages:

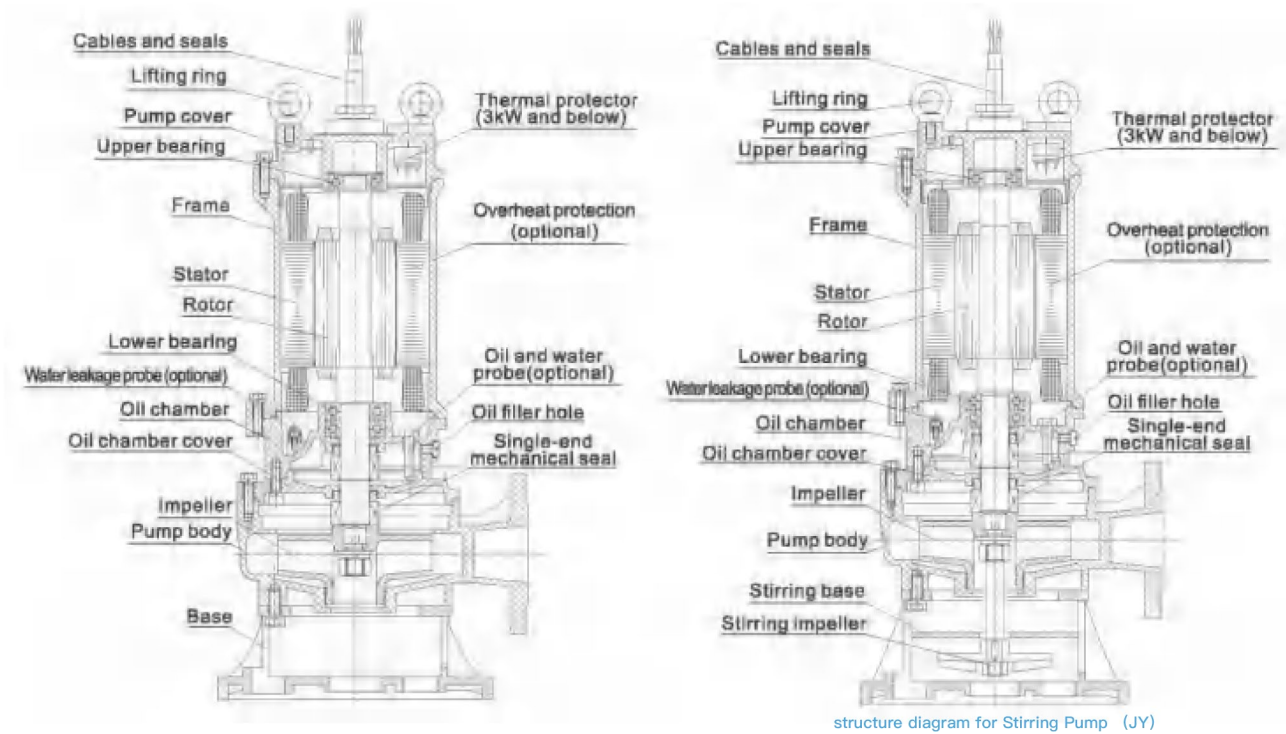
- "National Grade One Energy Efficiency": Pump efficiency exceeds the national standard by 2%–13%. Compared to most domestic products, it can achieve a lower power rating under the same flow and head conditions, resulting in more efficient and energy-saving operation.
- True Full-Head Pump: Wide high-efficiency range and stable performance.
- Water-Cut Process Cable: Effectively prevents liquid water and moisture from entering the pump interior.
- Multiple Detection and Protection Systems: Overheat protection switch, oil-water probe, float switch, all capable of real-time detection, and can achieve functions such as alarm, shutdown, and fault signal retention.
- Motor Inspection Port: Allows inspection of the motor cavity without disassembling the machine.
- Anti-Reverse Rotation Design: Impeller nut is designed with an anti-reverse rotation structure.
- Flexible Lifting Handle: Uses a tripod-style lifting method, with a handle that rotates flexibly for convenient, safe, and secure handling.
- Comprehensive Model Coverage: Easy and convenient selection. Can be flexibly customized according to different needs, suitable for various industries and working conditions.
- 100% Tested and Qualified Before Shipment: Complies with GB/T 12785.



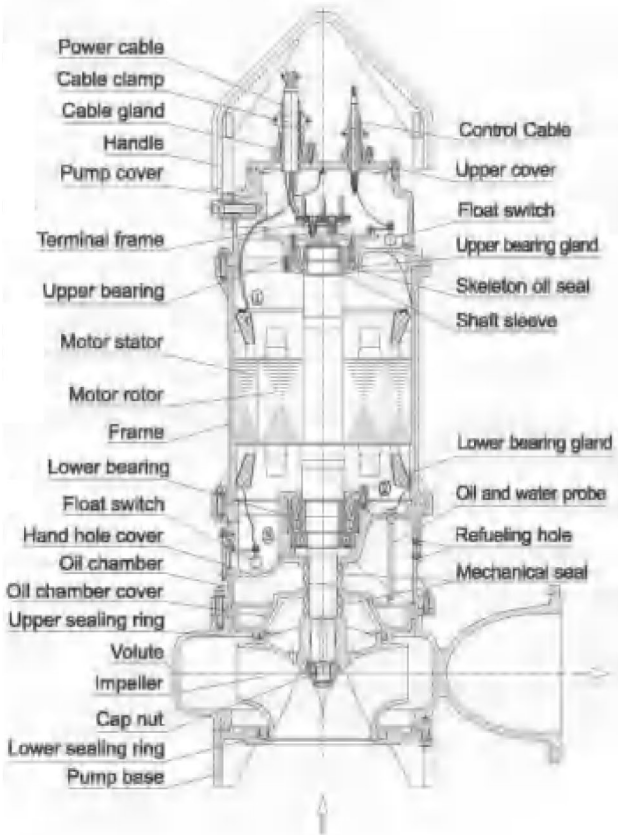
External cooling jacket
submersible sewage pump

Internal circulation cooling
submersible sewage pump

Structure diagram of WQA products



Structure diagram for 7.5kW and below



Structure diagram for 11kW-4P and above

Main materials and configuration table

No.	Name		Standard	Optional
1	Volute (pump body, pressurized water chamber)		HT200	/
2	Impeller		HT200	304
3	Oil chamber cover		HT200	/
4	Oil chamber, Motor frame Pump cover, Upper cover, Pump base		HT200	/
5	Motor insulation class		F (155℃)	H (180℃)
6	Shaft		2Cr13	304
7	Bearing brand		Domestic	SKF/NSK
8	Mechanical seal	Brand	Domestic	Bergman
9		Motor side friction pair	Graphite/SiC (AQ1)	SiC/WC (Q1U1)
10		Pump side friction pair	SiC/SiC (Q1Q2)	SiC/WC (Q1U1)
11		Spring	Stainless steel	/
12		Rubber parts	(NBR)	(FKM)
13	O-ring		(NBR)	(FKM)
14	External leakage fastener		A2-70	A4-70
15	Protection device (optional)	0.55-7.5kW	Thermal protector for 3kW and below	Water leakage probe/Float switch /Overheating protection

7.5kW and below

11kW and above

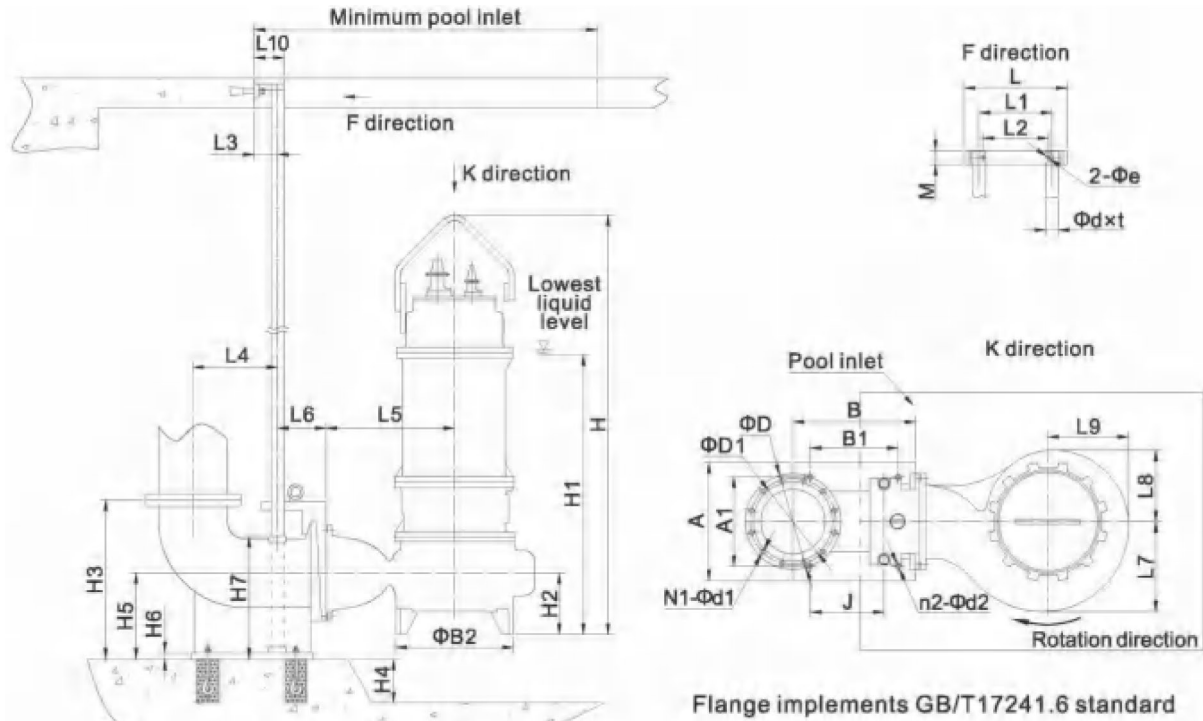
No.	Name		Standard	Optional
1	Volute (pump body, pressurized water chamber)		HT250	QT
2	Impeller		HT250	304/ QT
3	Oil chamber cover		HT250	QT
4	Oil chamber, Motor frame Pump cover, Upper cover, Pump base		HT200	/
5	Motor insulation class		F (155℃)	H (180℃)
6	Shaft		2Cr13	/
7	Bearing brand		Domestic	SKF/NSK
8	Mechanical seal	Brand	Domestic	Bergman
9		Motor side friction pair	Graphite/SiC (AQ1)	SiC/WC (Q1U1) SiC/SiC (Q1Q2)
10		Pump side friction pair	SiC/WC (Q1U1)	
11		Spring	Stainless steel	/
12		Rubber parts	(NBR)	(FKM)
13	O-ring		(NBR)	(FKM)
14	External leakage fastener		A2-70	A4-70
15	Protection device	11-15kW Optional 18.5-315kW Standard	Water leakage probe/Float switch /Overheating protection	Bearing temperature and vibration sensor

VATTURE PUMP

Specification/model of submersible motor cable

Motor power (kW)	Cable model	Standard main cable specification	Star delta	Model of controlling cable
0.55	YZW 300/500V	YZW 4×0.75	/	YZW 4×0.75 (Non-standard)
0.75				
1.1				
1.5				
2.2				
3				
4				
5.5				
7.5				
11/15-2				
11/15-4/6		YZW 3×1.5+1×1		
		YZW 3×2.5+1×1.5		
18.5/22/30-2	YCW 450/750V	YZW 3×2.5+1×4	2-YZW 3×2.5+1×1.5	YZW 4×1 (Non-standard)
18.5/22-4/6				YZW 6×1 (Non-standard)
37-2	YZW 300/500V	YCW 3×10+1×6	2-YZW 3×6+1×4	YZW 6×1 (Standard)
30-4/6/8	YCW 450/750V	YCW 3×16+1×16	2-YCW 3×6+1×4	
37-4/6/8				
45-4/6		YCW 3×25+1×10	2-YCW 3×6+1×16	
45-8. 55		YCW 3×35+1×10		
75-4/6/8		YCW 3×50+1×16	2-YCW 3×25+1×10	
90-4		YCW 3×70+1×25		
90-6/8				
110		2-YCW 3×35+1×10		
132		2-YCW 3×50+1×16		
160-4/6		2-YCW 3×50+1×16	/	
160-8		2-YCW 3×70+1×25		
200-4/6. 185		3-YCW 3×50+1×16		
200-8				
220-4/6/8		3-YCW 3×70+1×25		
250-4/6/8				
280-4		4-YCW 3×50+1×16		
280-6/8				
315-4/6/8				

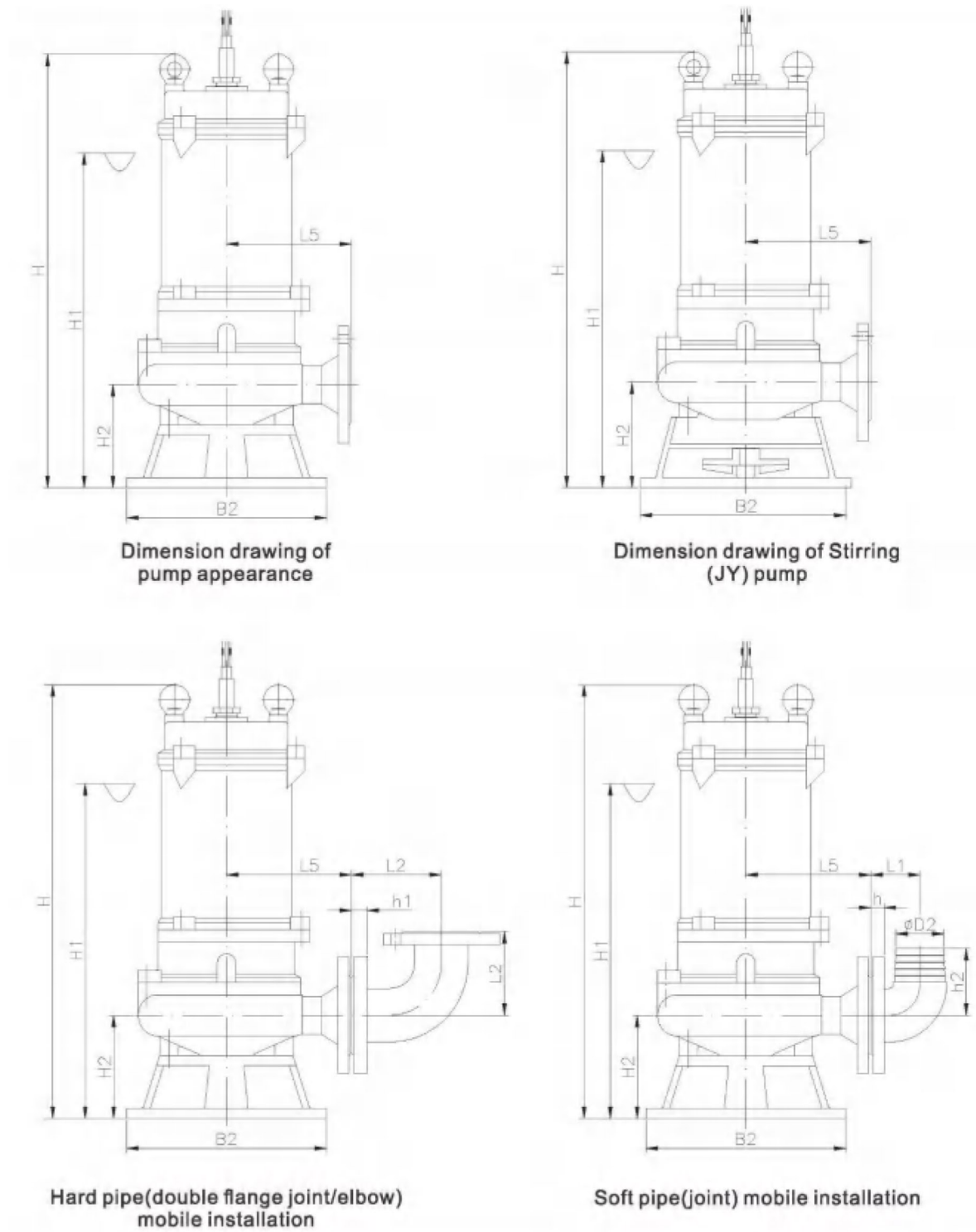
Installation dimension drawing



Flange coupling parts dimension table

Model	Flange Connection Size			Coupling Base Size																						
DN	D	D1	N1-Φd1	A	A1	B	B1	J	n2-Φd2	H3	H4	H5	H6	H7	L	L1	L2	M	Φe	L3	L4	L6	L10	Φdxt		
40	130	100	4-Φ14	108	65	138	68	68	4-Φ15	195	Adjust according to pump model		120	14	150	225	185	70	35	Φ14	65	125	85	13	Φ33×3	
50	140	110		197	168	208	130	120	4-Φ19	250			165				265	215	105	42	Φ14	66	135	90		15
65	160	130		238	190	252	155	135		265			170	16	/		280	235	125	50	Φ14	70	155	85		18
80	190	150	4-Φ19	255	220	225	153	125	310			190					315	265	145	53	Φ14	80	155	100	18	Φ48×3
100	210	170		293	265	258	175	140	350			235	18			365	305	170	55	Φ15	100	200	110	20		
150	265	225	8-Φ19	400	285	410	300	210	4-Φ22	485			300	22	390								290	190	20	
200	320	280		400	300	445	350	250	4-Φ25	550			325			440	410	260	275			60	330	195	20	
250	375	335	12-Φ19	460	360	555	430	325		635			310	24	450									395	215	20
300	445	400	12-Φ23	550	415	570	410	345	4-Φ28	740			400	30	570	480	305	340	65	Φ15	110	395	225	23		
350	505	460	16-Φ23	580	420	615	400	350		860			490	33	680	500	320	360					435	230	25	
400	565	515	16-Φ28	630	490	665	510	430		960			560	36	775								480	235	25	
500	670	620	20-Φ28	732	570	752	550	475		4-Φ28		1160		655	38	900	750	660			460	78	Φ20		565	250
600	780	725	20-Φ31	830	720	850	700	590	4-Φ33	1320			710	40	1020	830	740	560			660			275	30	

Pump appearance and mobile installation



WQA installation dimension table

No.	WQA model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Stirring (JY) H、H1、H2 needs to be increased	Weight	Pressure grade of pump outlet flange																	
		mm	kw	r/min	V	mm	L5	B2	H	H1	H2	L8	L9	L7		kg	PN																	
1	40WQA10-10-0.75	40	0.75	2950	220/ 380	20	135	200	460	380	110	90	95	100	35	23	6																	
2	40WQA8-15-1.1		1.1													24																		
3	40WQA15-12-1.1															25																		
4	40WQA12-15-1.5		1.5													29																		
5	50WQA10-7-0.55	50	0.55				135	200	460	380	110	90	95	100	35	23																		
6	50WQA10-10-0.75		0.75													24																		
7	50WQA8-15-1.1		1.1													25																		
8	50WQA15-12-1.1																																	
9	50WQA15-16-1.5	65	1.5			145	230	545	455	120	105	95	105	40	29																			
10	65WQA25-8-1.5														160	230		570	480	125	105	110	115											
11	50WQA15-22-2.2		50												2.2	150		230	580	490	120	105	100	110	40	38								
12	50WQA25-15-2.2																																	
13	65WQA30-11-2.2	65				160	230	590	500	125	105	110	115	37																				
14	80WQA40-10-2.2	80				170	230	605	515	130	110	110	125	38																				
15	100WQA50-7-2.2	100				30	180	230	605	515	130	105	125	140	43																			
16	50WQA15-30-3	50	3			25	150	230	590	500	120	105	110	115	45	43																		
17	50WQA25-20-3																																	
18	50WQA15-35-4															5.5		4	170	260	635	535	140	120	110	120	68							
19	50WQA25-28-4																																	
20	50WQA20-40-5.5	7.5	180			260	665	565	140	115	110	125	95																					
21	50WQA25-35-5.5		190			320	730	620	155	135	125	135																						
22	50WQA25-40-7.5	65	3			155	230	595	505	125	105	110	115	40	44																			
23	65WQA35-15-3		4												170	260		625	525	140	115	115	120	62										
24	65WQA35-20-4		5.5																						195	320	735	620	160	135	130	135	69	
25	65WQA30-30-5.5		7.5																															180
26	65WQA30-35-7.5	80	3			175	260	650	550	145	115	125	130	44																				
27	80WQA40-13-3		4												205	320		750	640	165	135	135	145	63										
28	80WQA50-15-4		5.5																						180	230	610	520	130	105	125	140	74	
29	80WQA65-17-5.5		7.5																															170
30	80WQA45-25-7.5	100	3			205	320	750	640	165	135	135	145	55																				
31	100WQA60-9-3		4												180	230		610	520	130	105	125	140	64										
32	100WQA60-11-4		5.5																						170	260	655	555	150	120	130	150	76	
33	100WQA65-15-5.5		150																															7.5
34	100WQA80-17-7.5	5.5				180	230	610	520	130	105	125	140	125																				
35	100WQA45-25-7.5														7.5	170		260	655	555	150	120	130	150										140
36	150WQA100-10-5.5														5.5										205	320	750	640	165	135	135	145	135	
37	150WQA100-12-7.5		7.5												180																			
38	150WQA130-8-5.5	5.5	170			260	655	555	150	120	130	150	135																					
39	150WQA150-10-7.5	7.5		205										320		750		640	165	135	135	145	145											

WQA installation dimension table

No.	WQA model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Weight	Pressure grade of pump outlet flange	Full-head?									
		mm	kw	r/min			V	mm	L5	B2	H	H1	H2	L8	L9	L7		kg	PN							
1	65WQA20-56-11	65	11	2950	380	20	220	320	800	600	160	145	155	160	153	6	no									
	80WQA40-45-11	80	11				240		830	630					155			160	155	160	155	160	155	160	155	
	80WQA45-55-15		15																							160
2	80/100WQA80-45-18.5	80/100	18.5	2950		15	280	300	1170	880	155	155	160	175	246	6										
	80/100WQA50-65-22		22												255											
	80/100WQA80-53-22														255											
3	100WQA40-45-11	100	11	2950		20	240	320	800	600	160	145	155	160	162	6										
	100WQA70-40-15		15						830	630					172											
4	100WQA100-34-18.5	100	11	2950		40	240	280	1200	900	190	155	155	155	265	6										
	100WQA100-38-22		15												276											
5	100WQA80-25-11	100	11	1475		50	340	380	1120	830	205	210	220	230	263	6										
	100WQA80-30-15		15						286																	
	100WQA100-30-18.5		18.5						363																	
	100WQA100-34-22		22						379																	
6	100WQA80-75-37	100	37	2950		15	280	300	1170	880	155	155	160	175	295	10										
	100WQA80-65-30		30												290											
7	100WQA160-40-30	100	30	2950		40	300	280	1190	900	170	165	185	205	300	6										
	100WQA180-42-37		37												310											
	100WQA100-73-45	100	45	2950											30	320		300	1500	950	165	200	205	215	440	10
	100WQA100-90-55		55																						480	
8	150WQA150-15-11	150	11	1475		60	360	380	1140	850	210	210	230	250	275	10		yes								
	150WQA150-21-15		15						1390	890					300											
	150WQA220-20-18.5		18.5						375																	
9	150WQA130-30-22	150	22	1475		50	385	380	1380	880	205	220	235	255	390		no									
10	150WQA150-44-30	150	30	1475		50	440	300	1550	970	220	245	255	265	630	6										
	150WQA200-32-30		30												630											
	150WQA180-30-30		30												630											
	150WQA150-48-37		37												655											
11	150WQA250-22-30		30	1475		50	440	300	1540	960	205	250	275	290	630	6										
	150WQA250-24-30		30												630											
	150WQA280-26-37		30												630											
	150WQA300-30-37		37												665											
12	150WQA240-42-45	150	45	1475		55	500	400	1630	1050	210	260	275	290	720	6										
	150WQA250-50-55		55												755											
13	150WQA280-56-75	150	75	1475		50	540	400	1880	1210	240	300	320	335	1009	10										
	150WQA300-60-90		90												1085											

WQA installation dimension table

No.	WQA model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Weight	Pressure grade of pump outlet flange	Full-head?				
		mm	kw	r/min	V	mm	L5	B2	H	H1	H2	L8	L9	L7	kg	PN					
14	200WQA340-7-11	200	11	1475	380	80	420	380	1180	890	245	240	280	310	295	10	yes				
	200WQA400-8-15		15						1430	930					315						
	200WQA400-10-18.5		18.5												380						
	200WQA400-12-22		22												395						
15	200WQA240-12-11	200	11	1475		85	420	300	1130	830	205	230	270	300	293	6					
	200WQA300-13-15		15						1375	870					315						
	200WQA300-16-18.5		18.5												380						
	200WQA340-16-22		22												395						
16	200WQA340-22-30	200	30	1475		80	460	400	1560	980	215	250	280	310	655	6	no				
	200WQA400-24-37		37						1640	1060					682						
	200WQA400-28-45		45												738						
	200WQA400-34-55		55												771						
17	200WQA550-32-75	200	75	1475		80	560	400	1900	1230	235	305	340	365	1070	6					
	200WQA600-36-90		90						1145												
18	200WQA480-50-110	200	110	1475		75	550	400	2150	1390	270	325	340	360	1585	10					
	200WQA500-55-132		132						1652												
	200WQA500-64-160		160						1757												
19	250WQA380-7-11	250	11	1475		75	450	460	1140	850	225	250	300	335	305	6	yes				
	250WQA400-10-15		15						1390	890					325						
	250WQA480-10-18.5		18.5												388						
	250WQA480-12-22		22												405						
20	250WQA600-12-30	250	30	1475	80	530	400	1570	990	210	265	315	360	672	6						
	250WQA600-15-37		37					1650	1070					700							
	250WQA600-18-45		45											755							
	250WQA600-24-55		55											788							
21	250WQA500-13-30	250	30	980	70	560	475	1640	1060	270	290	320	360	690	10	no					
	250WQA600-14-37		37					1720	1140					720							
22	250WQA650-16-45	250	45	980	90	570	550	1970	1300	285	300	335	370	975	6						
	250WQA700-20-55		55					1024													
23	250WQA700-27-75	250	75	1475	85	520	460	1935	1270	255	280	315	345	1095	6	yes					
	250WQA750-30-90		90					1170													
24	250WQA600-40-110	250	110	980	40	630	650	2280	1530	270	370	420	445	1865	10	no					
25	250WQA650-40-110	250	110	1475	100	660	460	2180	1430	280	325	360	390	1615	6						
	250WQA800-40-132		132					1685													
	250WQA800-50-160		160					1788													

WQA installation dimension table

No.	WQA model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Weight	Pressure grade of pump outlet flange	Full-head?	
		mm	kw	r/min	V	mm	L5	B2	H	H1	H2	L8	L9	L7	kg	PN		
26	250WQA600-68-185	250	185	1475	380	70	600	460	2270	1510	250	350	380	405	1855	10	no	
	250WQA600-74-200		200						2350	1610					1896			
	250WQA600-80-220		220												1963			
	250WQA600-85-250		250												2060			
	250WQA700-90-280		280												2650			1750
27	300WQA600-6-15	300	15	980		90	575	500	1450	950	255	325	380	440	510	10	yes	
	300WQA600-8-18.5		18.5						1500	1000					542			
	300WQA700-8-22		22												558			
28	300WQA800-9-30	300	30	980		90	600	550	1705	1120	285	340	380	425	707	10		
	300WQA800-10-37		37						1785	1200					737			
	300WQA900-12-45		45						1970	1300					983			
	300WQA900-16-55		55												1035			
29	300WQA800-22-75	300	75	980		70	700	650	2180	1420	270	415	475	525	1635	10		
	300WQA900-24-90		90						2300	1540					1721			
	300WQA1000-27-110		110						1891									
30	300WQA900-35-132	300	132	980		45	630	650	2420	1660								
31	300WQA900-20-75	300	75	1475		120	565	525	1985	1320	275	325	390	440	1100	10	yes	
	300WQA900-24-90		90						1175									
32	300WQA1000-25-110	300	110	1475		100	670	525	2205	1450	285	350	400	445	1650	10		
	300WQA1000-30-132		132						2325	1570					1717			
	300WQA1100-36-160		160												1840			
33	300WQA1250-36-185	300	185	1475		70	650	525	2280	1520	265	375	425	470	1910	10		no
	300WQA1300-38-200		200						2410	1650					1950			
	300WQA1300-42-220		220												1975			
	300WQA1300-50-250		250												2236			
	300WQA1400-52-280		280												2340			
34	350WQA950-8-30	350	30	980		110	740	520	1670	1080	275	410	480	545	792	10	yes	
	350WQA1100-8-37		37						1750	1160					871			
	350WQA1150-10-45		45						1970	1300					1055			
	350WQA1200-12-55		55												1105			
35	350WQA1200-18-90	350	90	980		100	700	650	2180	1420	270	415	475	525	1610	10		
	350WQA1200-20-110		110						2300	1540					1812			
36	350WQA1100-16-75	350	75	980		130	850	625	2210	1450	295	445	515	575	1668	10		yes
	350WQA1400-15-90		90						2330	1570					1755			
	350WQA1600-17-110		110												1927			
	350WQA1700-20-132		132												2032			

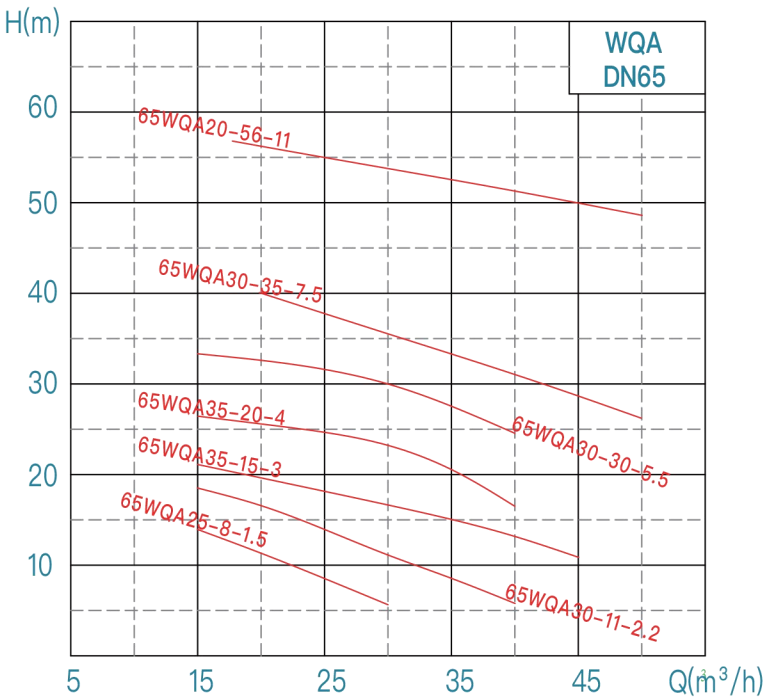
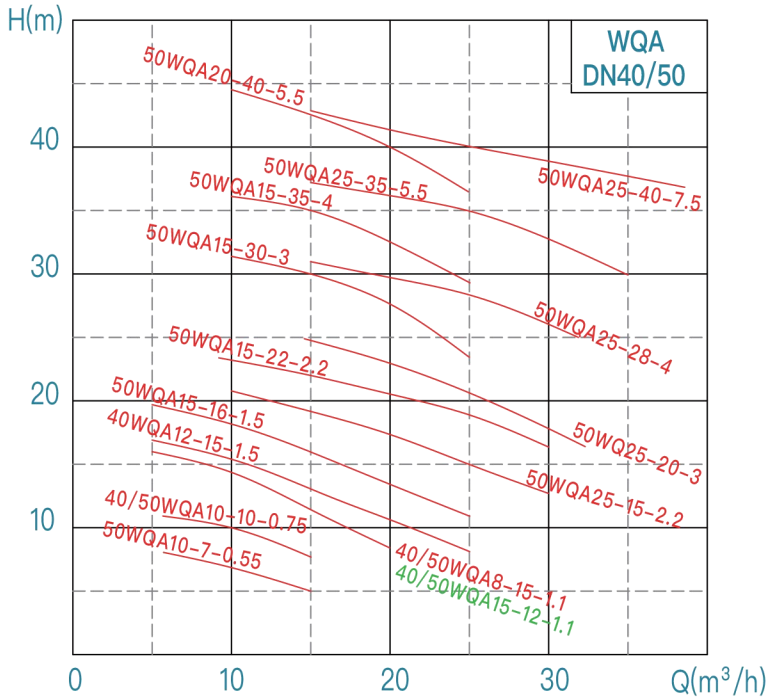
WQA installation dimension table

No.	WQA model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Weight	Pressure grade of pump outlet flange	Full-head?
		mm	kw	r/min	V	mm	L5	B2	H	H1	H2	L8	L9	L7	kg	PN	
37	350WQA1100-35-160	350	160	980	380	55	800	750	2730	1800	355	450	500	540	2570	10	yes
	350WQA1100-40-185		185												2620		
	350WQA1200-40-200		200												2675		
	350WQA1400-40-220		220												2800		
	350WQA1600-40-250		250												2990		
	350WQA1700-42-280		280												3070		
38	400WQA1600-11-75	400	75	980		120	850	650	2280	1520	350	495	565	635	1766	10	
	400WQA1800-12-90		90						2400	1640					1855		
	400WQA1900-15-110		110												2024		
	400WQA2300-14-132		132												2130		
39	400WQA1600-25-160	400	160	980		120	860	650	2750	1820	330	490	560	615	2620	10	
	400WQA1800-28-185		185						2750	1820					2670		
	400WQA1800-30-200		200												2730		
40	400WQA1900-26-220	400	220	980		150	850	670	2800	1870	335	470	555	635	2850	10	
	400WQA2200-28-250		250						2800	1870					2995		
	400WQA2200-32-280		280												3070		
41	400WQA1200-6-30	400	30	740		100	850	660	1960	1290	350	500	580	650	1700	10	
	400WQA1300-7-37		37						2060	1390					1737		
	400WQA1400-8-45		45												1816		
	400WQA1500-10-55		55												1910		
42	400WQA2000-9-75	400	75	740		100	800	800	2400	1640	435	475	575	655	2050	10	
	400WQA2200-10-90		90						2520	1760					2350		
	400WQA2200-12-110		110		2910				1990	2680							
	400WQA2200-15-132		132							2735							
	400WQA2400-17-160	400	160	740	2910				1990	3000							
	400WQA2500-18-185		185							3200							
	400WQA2500-19-200		200							3400							
			500WQA2500-8-90							500					90		740
500WQA2500-10-110	110	2910	1990	2390													
500WQA3000-10-132	132			2780													
500WQA3000-14-160	160			3130													
500WQA3000-16-185	185			3210													
500WQA3000-18-200	200			3290													
44	500WQA3000-20-220	500	220	740	95	1000	800	2770	1840	365	620	710	790	3470	10		
	500WQA3000-23-250		250					2950	2020					3550			
	500WQA3000-25-280		280											3740			
45	600WQA3500-12-185	600	185	740	150	960	870	2950	2020	460	570	690	785	3380	10		
	600WQA4000-12-200		200											3460			
	600WQA4000-14-220		220											3640			
	600WQA4000-16-250		250					3720									
	600WQA4200-17-280		280					3910									
	600WQA4200-20-315		315					4090									

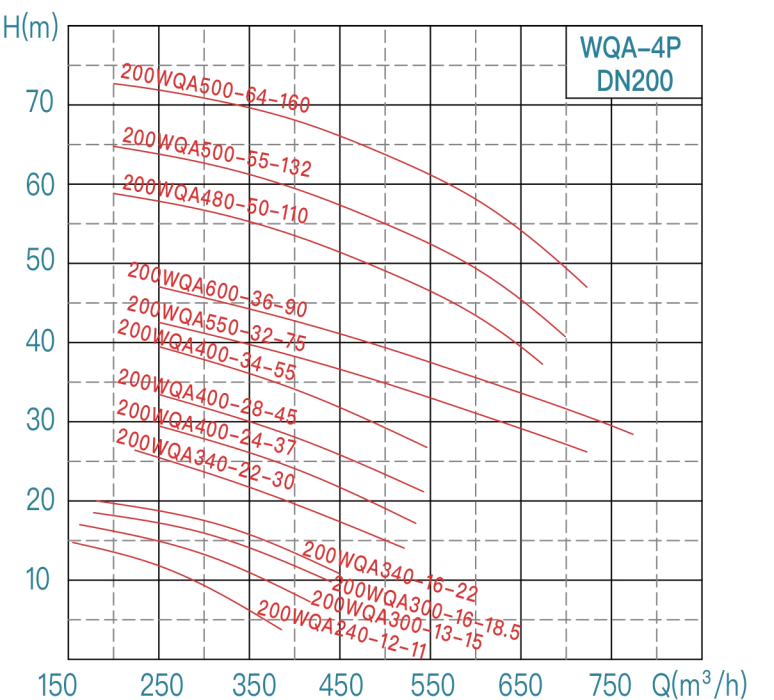
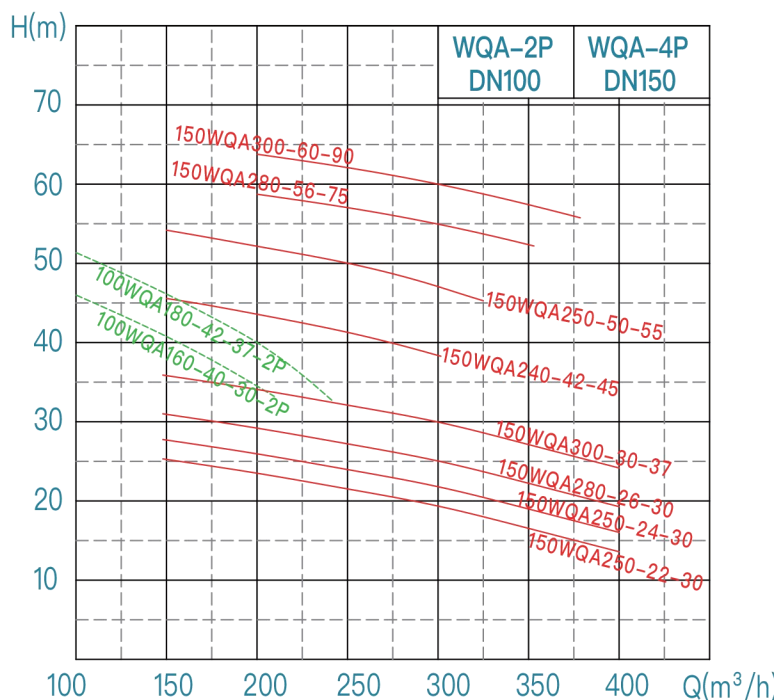
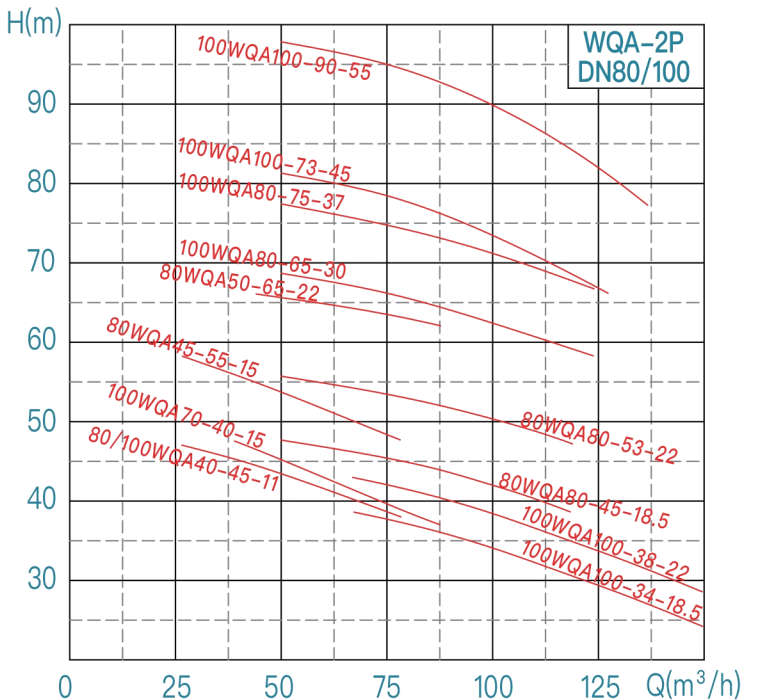
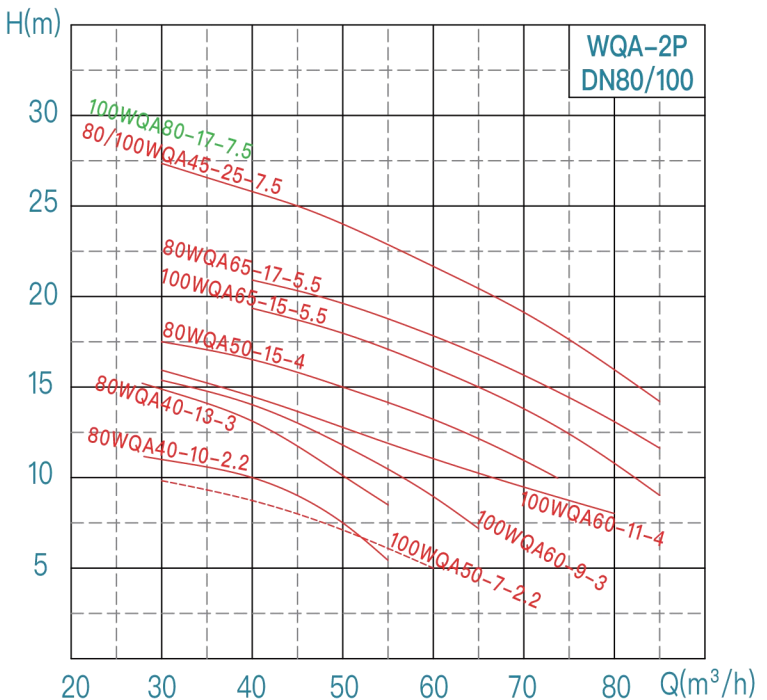
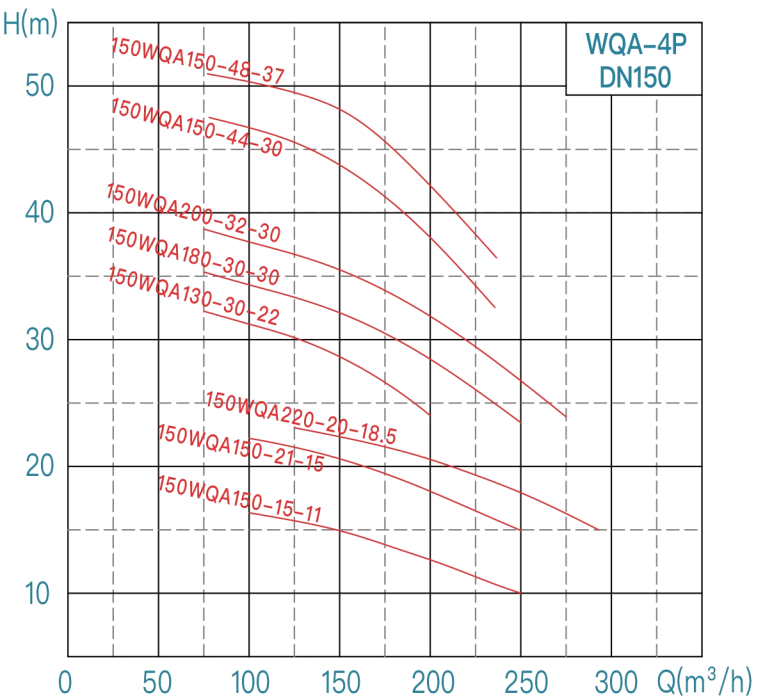
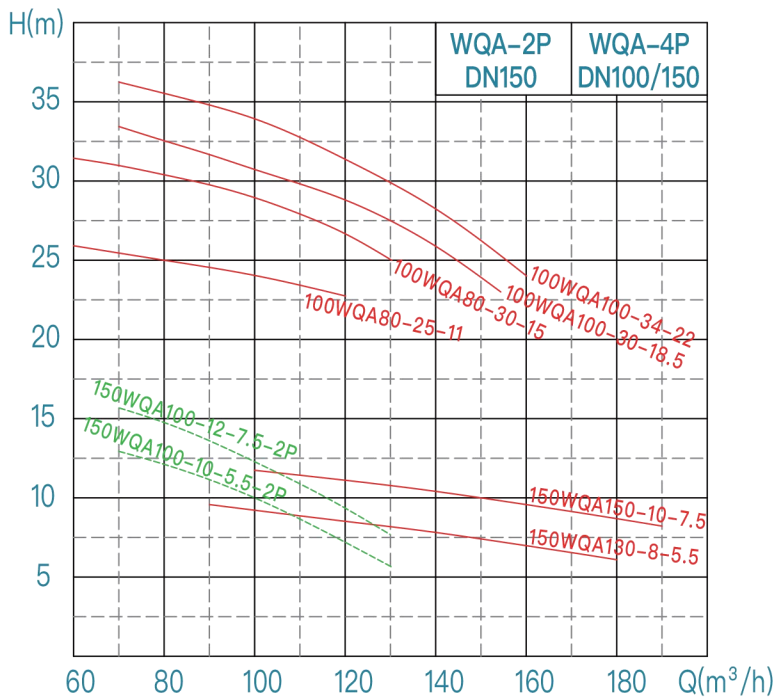
VATTURE PUMP

WQA
High-efficiency
Submersible sewage pump

WQA performance curve chart (50Hz)



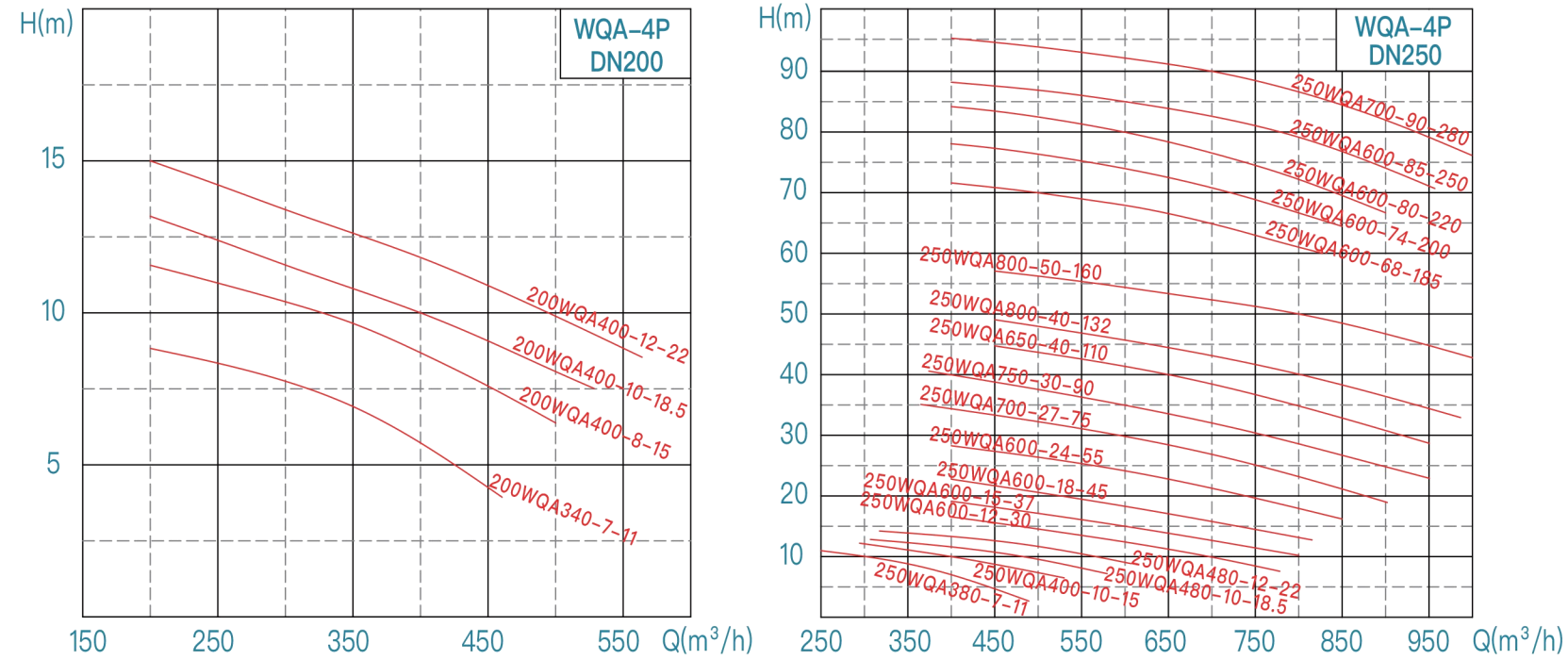
WQA performance curve chart (50Hz)



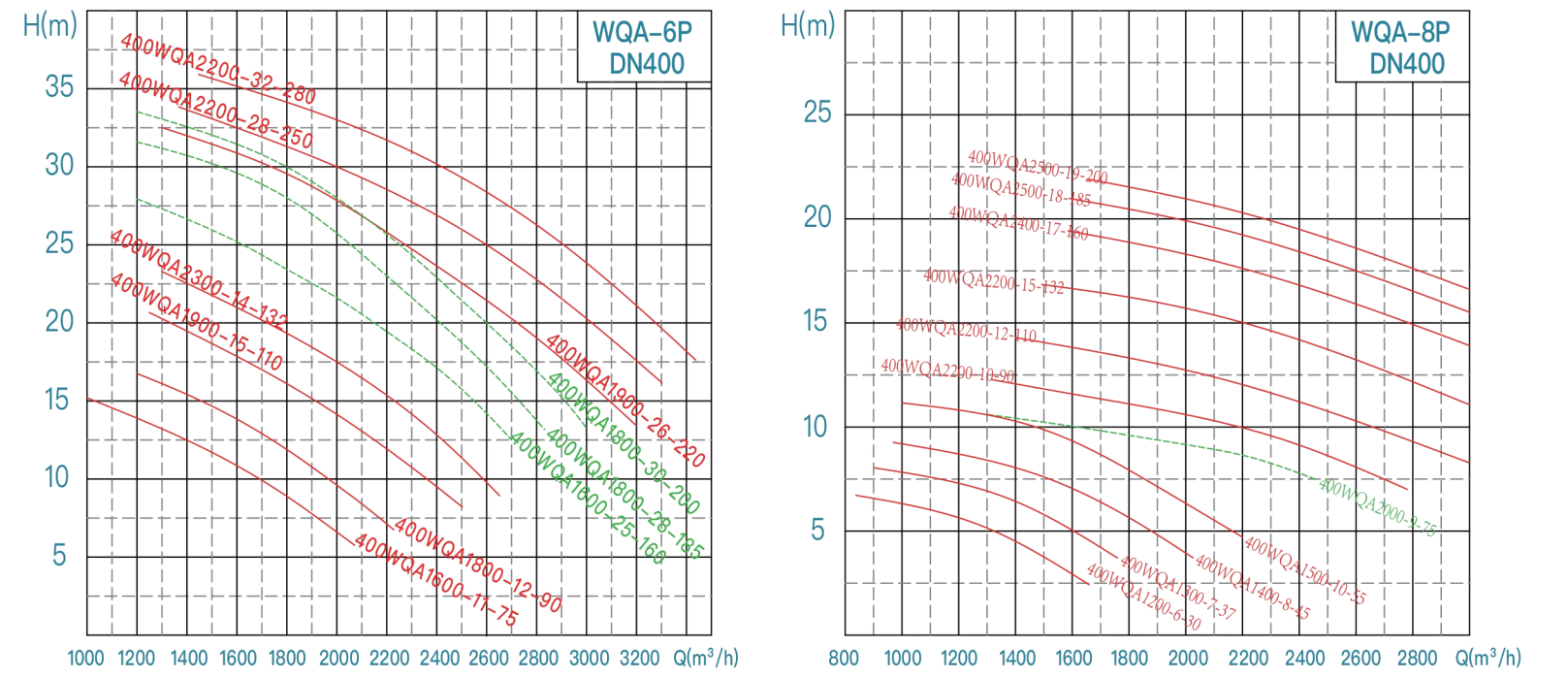
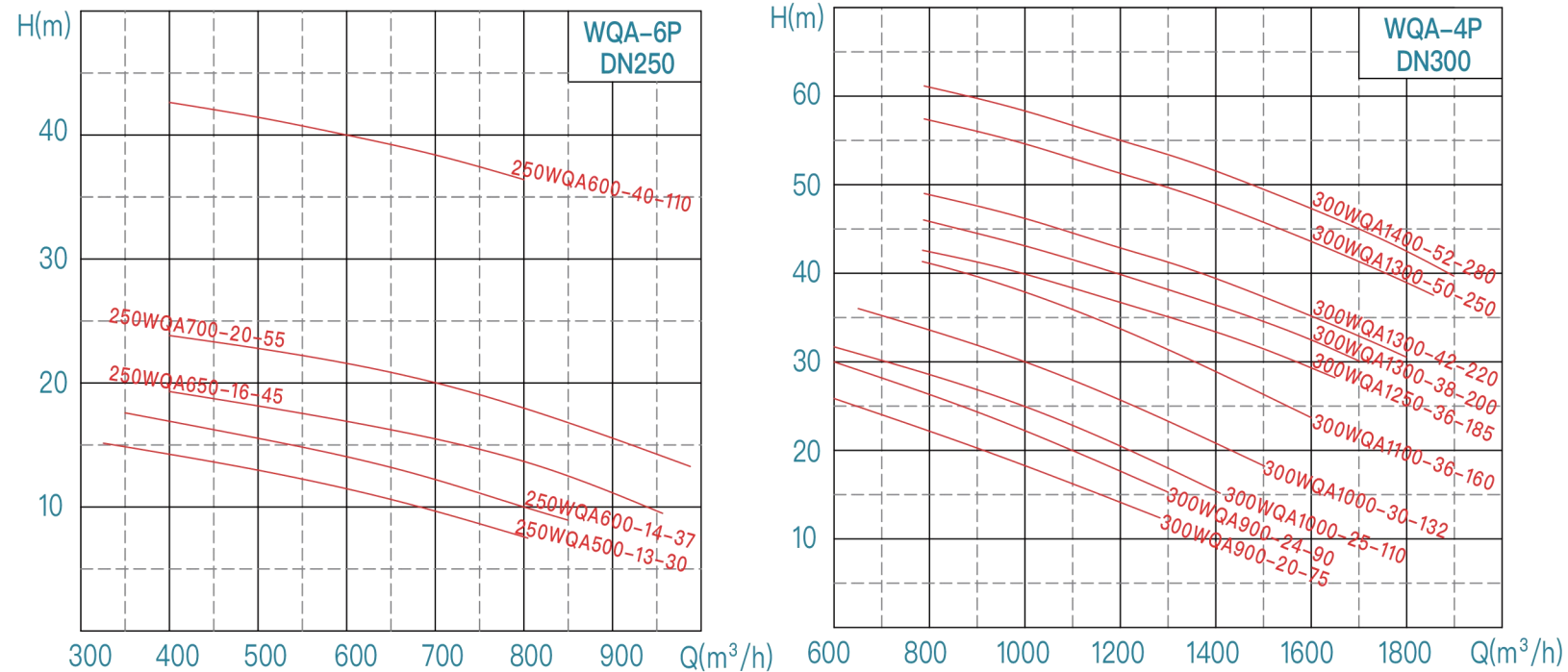
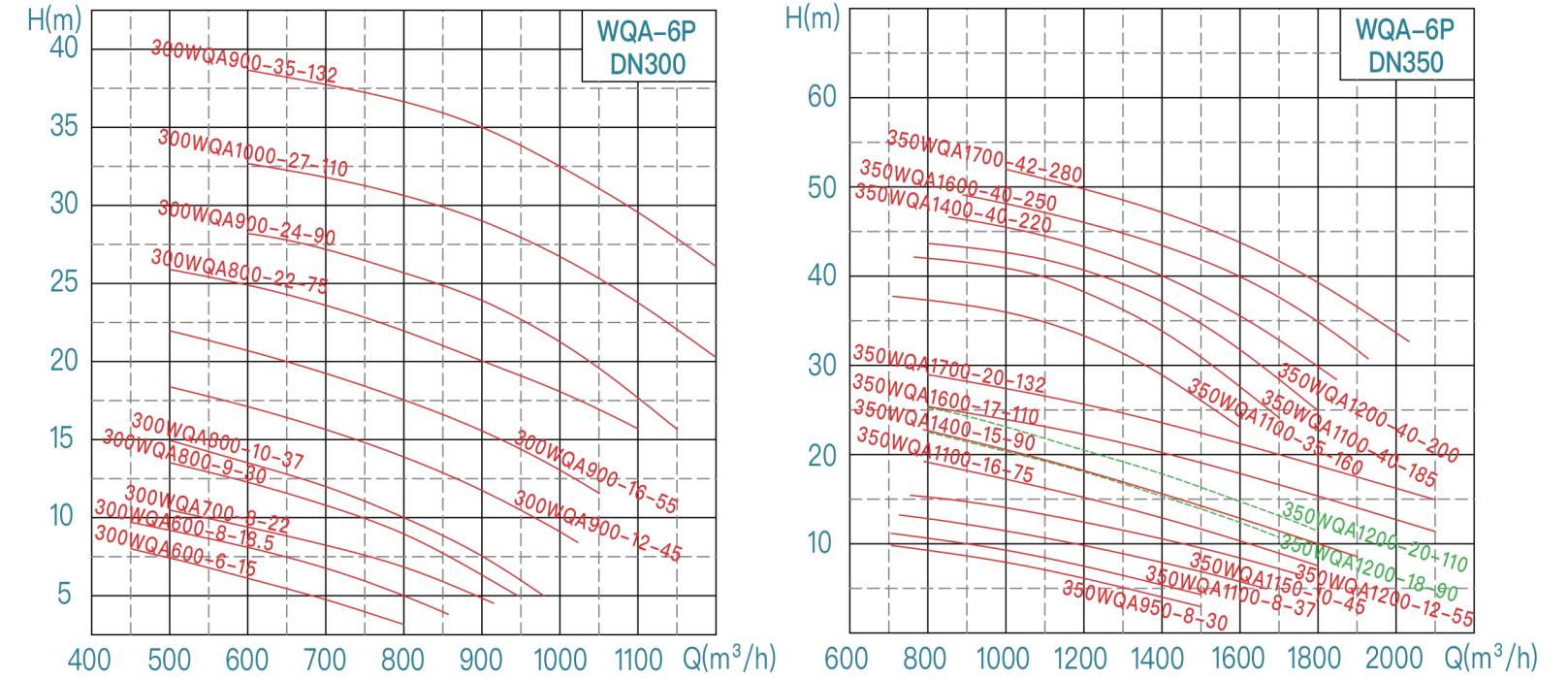
VATTURE PUMP

WQA
High-efficiency
Submersible sewage pump

WQA performance curve chart (50Hz)

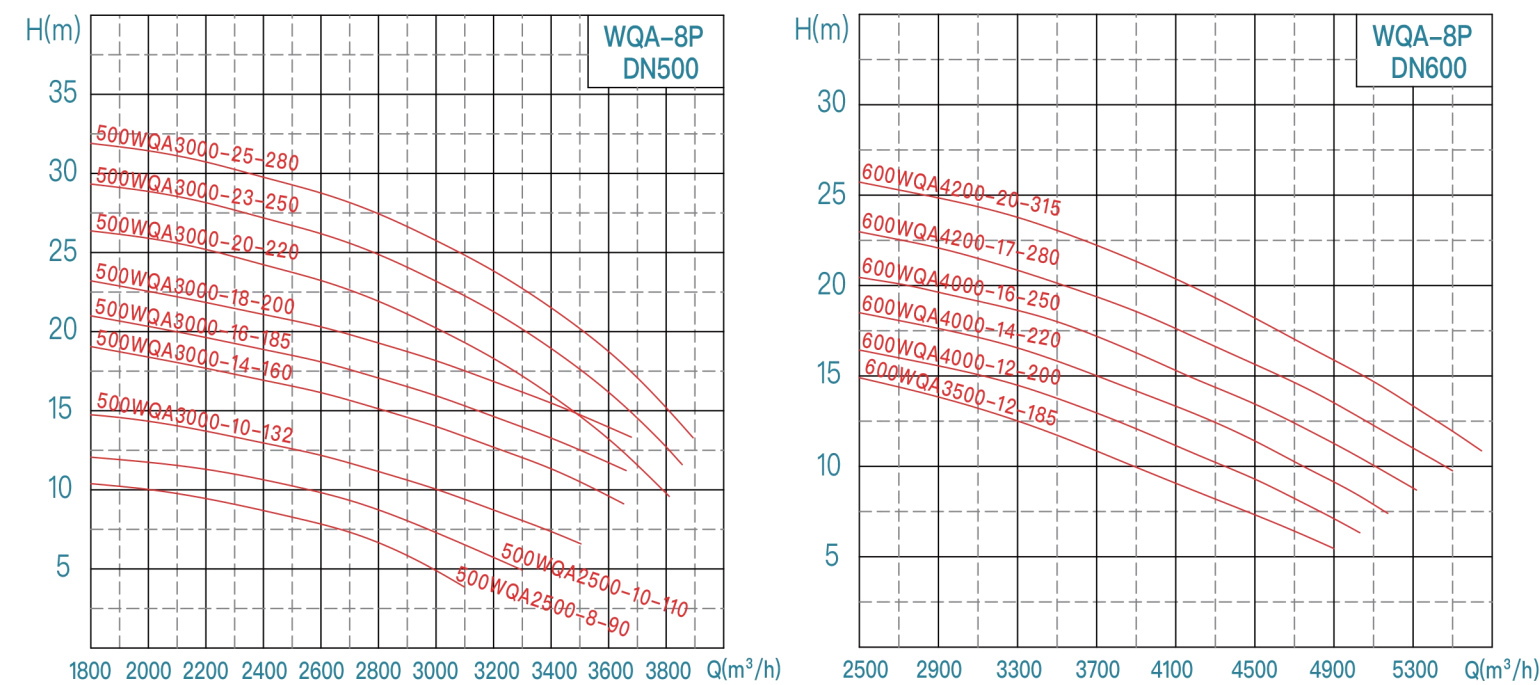


WQA performance curve chart (50Hz)



VATTURE PUMP

WQA performance curve chart (50Hz)



WQE economic
submersible sewage pump ►

WQE

Economic

Submersible sewage pump



Scope of Application:

municipal engineering, sewage treatment, flood control and drainage, hydraulic engineering, industry sewage, environmental protection ...

Operating Conditions:

Flow Rate: 7 ~ 2500 m³/h
Head: 7 ~ 75 m
Medium Temperature: T ≤ 40°C
Medium Density: ≤ 1100 kg/m³; Solid phase volume ratio in the medium is less than 3%
Medium pH Range: 4 ~ 10
Motor Insulation Class: Class F (standard), Class H (optional)
Protection Class: IP68
Minimum Operating Liquid Level: See "▽" in the installation dimension drawing (without motor cooling system); if the user's water level is lower than "▽", please contact the company's technical department.
The maximum diameter of solids in the medium should be less than the minimum size of the flow channel. The allowable solid passing diameter is detailed in the specific pump model size table.
Standard cable length is 9 meters. If a specific cable length is required, it can be specified in the order (Note: Voltage drop must be calculated).

Product Introduction:

The WQE series submersible sewage pumps are designed to provide better reliability and higher efficiency for our customers. Based on over 30 years of experience in submersible pump manufacturing and technological accumulation, we have optimized the hydraulic model. Additionally, we have comprehensively optimized the mechanical structure, sealing, and protection aspects, and adopted high-quality motor materials to ensure the stability of the unit. The WQE series consists of a total of 116 models.



Structure diagram of WQE products

Main materials and configuration table

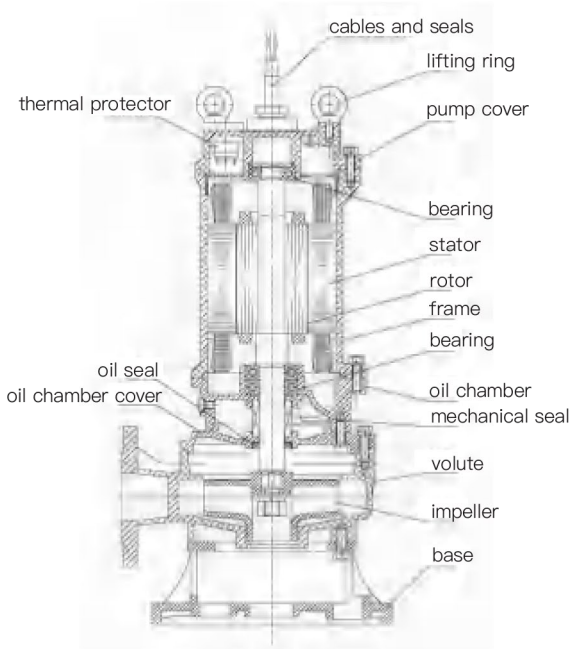
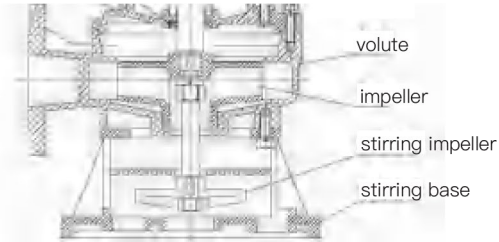


Figure 1



structure diagram for stirring base

No.	Name		Standard	Optional
1	Volute (pump body, pressurized water chamber)		HT200	/
2	Impeller		HT200	/
3	Oil chamber cover		HT200	/
4	Oil chamber, Motor frame Pump cover, Upper cover, Pump base		HT200	/
5	Motor insulation class		F (155℃)	H (180℃)
6	Shaft		2Cr13	/
7	Bearing brand		Domestic	SKF/NSK
8	Mechanical seal	Brand	Domestic	/
9		Motor side friction pair	Graphite/SiC (AQ1)	SiC/WC (Q1U1)
10		Pump side friction pair	SiC/SiC (Q1Q2)	SiC/WC (Q1U1)
11		Spring	Stainless steel	/
12		Rubber parts	(NBR)	/
13	O-ring		(NBR)	/
14	External leakage fastener		7.5kW and below: 8.8 11kW and above: A2-70	7.5kW and below: A2-70
15	Protection device (standard)	75-6P, 90-6P 110kW-132kW	Water leakage probe/Float switch /Overheating protection	Thermal protector for 3kW and below

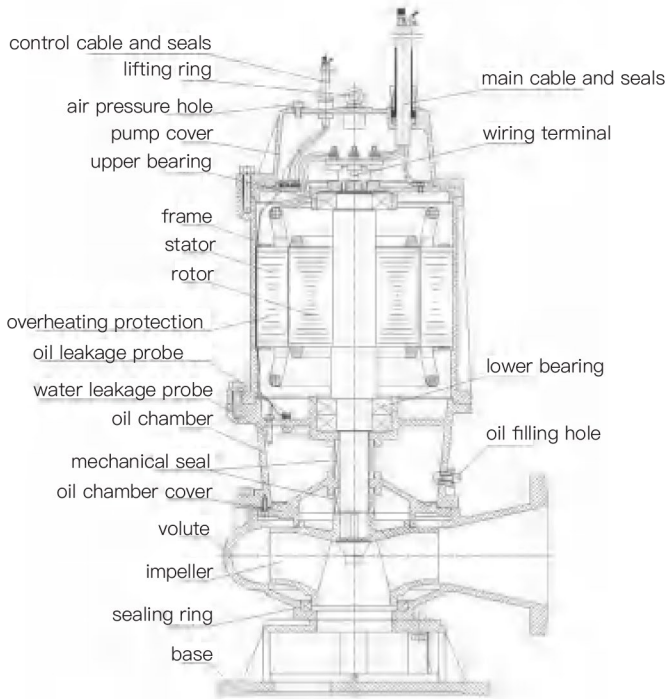


Figure 2

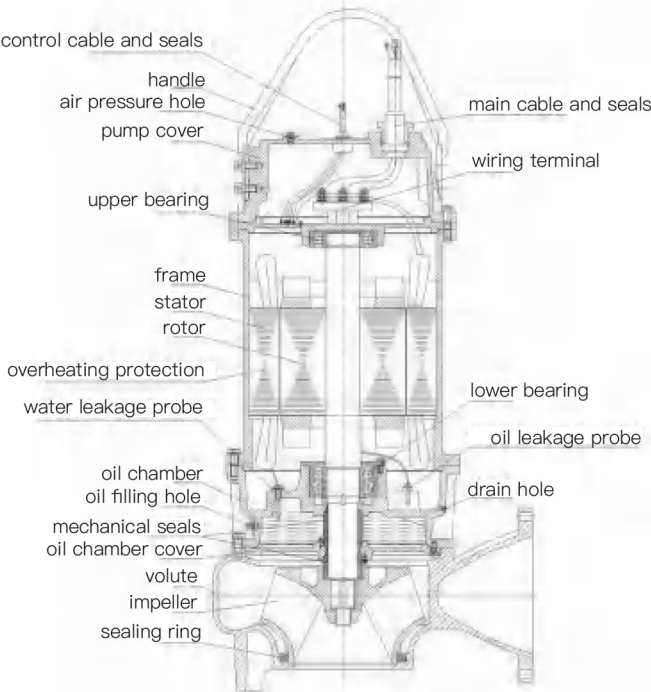


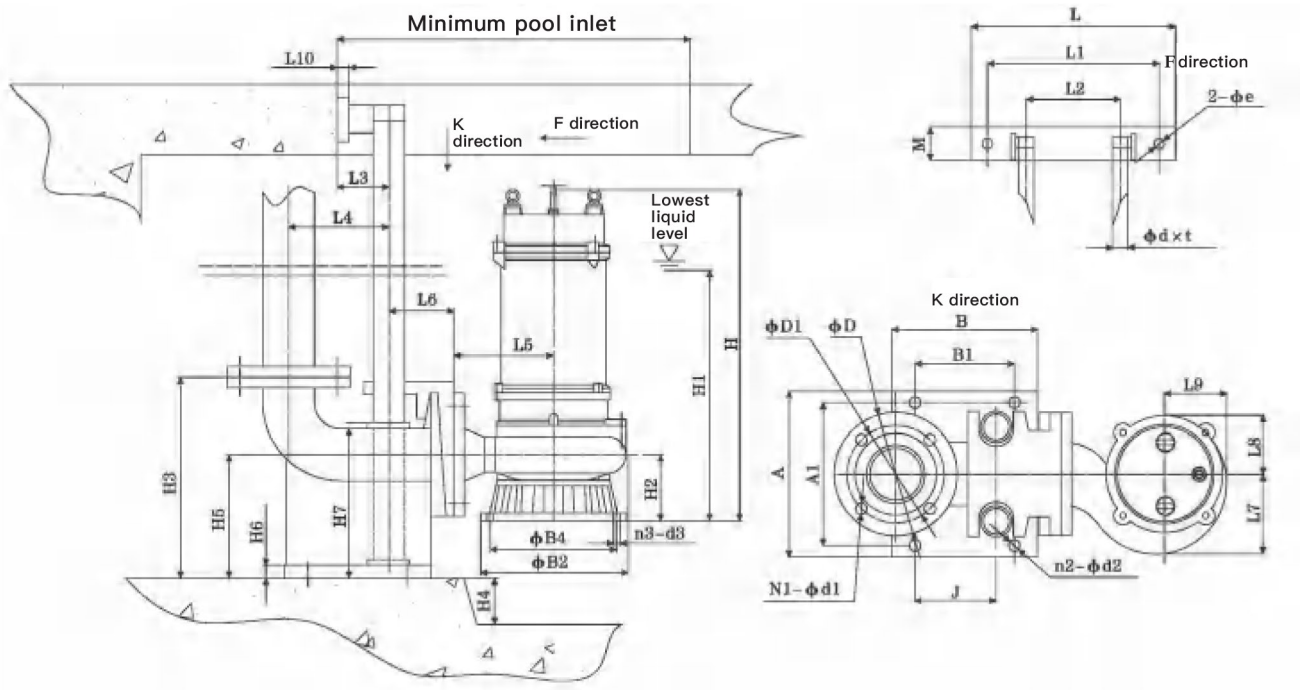
Figure 3

Structure diagram for 11kW and above

Specification/model of submersible motor cable

Motor power (kW)	Cable model	Standard main cable specification	Star delta	Model of controlling cable
0.55	YZW 300/500V	YZW 4×0.75	/	YZW 4×0.75 (Non–standard)
0.75				
1.1		YZW 4×1		
1.5				
2.2		YZW 3×1.5+1×1		
3				
4		YZW 3×2.5+1×1.5		
5.5				
7.5		YZW 3×2.5+1×4		
11/15–2P				
11/15–4P	2–YZW 3×2.5+1×1.5	YZW 4×1 (Non–standard)		
18.5	2–YZW 3×6+1×4			
22				
30	2–YCW 3×10+1×6			
37	2–YCW 3×16+1×16			
45	2–YCW 3×16+1×16			
55	YCW 3×50+1×16		2–YCW 3×25+1×10	
75–4P			2–YCW 3×35+1×10	
90–4P			2–YCW 3×25+1×10	
75–6P			2–YCW 3×35+1×10	
90–6P	2–YCW 3×35+1×10		YZW 3×1.5+1×1 (Standard)	
110	2–YCW 3×35+1×10			
132	2–YCW 3×50+1×16			

Installation dimension drawing



Flange coupling parts dimension table

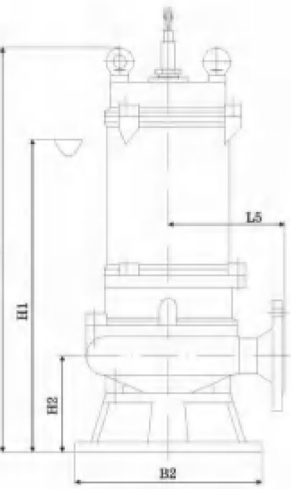
Model DN	Flange Connection Size			Coupling Base Size						H3	H4	H5	H6	H7	L	L1	L2	M	Φe	L3	L4	L6	L10	Φdxt	
	D	D1	N1-Φd1	A	A1	B	B1	J	n2-Φd2																
40	130	100	4-Φ14	108	65	138	68	68	4-Φ15	195	Adjust according to pump model	120	14	150	225	185	70	35	Φ14	65	125	85	13	Φ33×3	
50	140	110		197	168	208	130	120	4-Φ19	250		165		/	265	215	105	42	Φ14	66	135	90	15		
65	160	130		238	190	252	155	135		265		170	16		280	235	125	50	Φ14	70	155	85	18		
80	190	150	4-Φ19	255	220	225	153	125	310	190		315			265	145	53	Φ14	80	155	100	18	Φ48×3		
100	210	170		293	265	258	175	140	350			235	18		365	305	170	55	Φ15	100	200	110		20	
150	265	225	8-Φ19	400	285	410	300	210	4-Φ22	485		300	22	390	410	260	275	60			290	190		20	
200	320	280		400	300	445	350	250	4-Φ25	550		325		440							330	195		20	
250	375	335	12-Φ19	460	360	555	430	325		635		310	24	450	480	305	340	65		115	395	215		20	Φ60×3
300	445	400	12-Φ23	550	415	570	410	345	740	400		30	570	490							33	680		500	
350	505	460	16-Φ23	580	420	615	400	350	860	490		33	680	560	36	775	480	235	25						
400	565	515	16-Φ28	630	490	665	510	430	960	655		38	900	750	660	460	78	Φ20	565		250	26	Φ76×3.5		
500	670	620	20-Φ28	732	570	752	550	475	4-Φ28	1160		710	40	1020	830	740			560		660	275		30	
600	780	725	20-Φ31	830	720	850	700	590	4-Φ33	1320															

Lightweight flange coupling parts dimension table

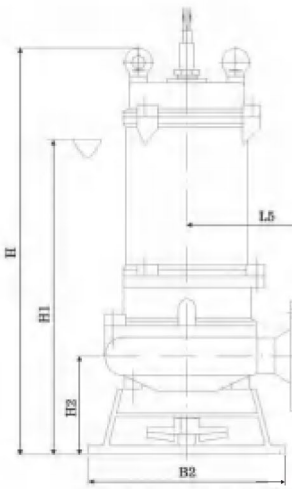
Model	Flange Connection Size			Coupling Base Size																						
DN	D	D1	N1-Φd1	A	A1	B	B1	J	n2-Φd2	H3	H4	H5	H6	H7	L	L1	L2	M	Φe	L3	L4	L6	L10	Φd×t		
50	140	110	4-Φ14	142	120	170	120	120	4-Φ14	235	100	150	11	180	225	185	72	36	Φ11	60	133	53	12	Φ33×3		
65	160	130		150	128	195	142	142		245		138	12	177	265	215				142	55					
80	190	150	4-Φ18	170	148	210	158	158	272	158		13	220	280	235	77	52			Φ15	77	153	82	18	Φ48×3	
100	205	170		190	158	220	145	143	4-Φ18	340		198	14	257	315						265	178	82			
150	260	225	8-Φ18	262	220	306	230	240	4-Φ22	425	150	268	18	350	365	305		95	52		Φ15	83	230	100	18	

WQE installition dimension table

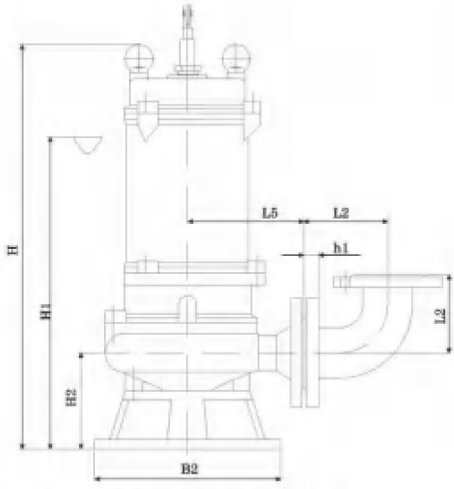
No.	WQE model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)										304 impeller	Stirring (JY) H、H1、H2 needs to be increased	Weight	Pressure grade of pump outlet flange																	
		mm	kW	r/min	V	mm	L5	B2	B4	n3-d3	H	H1	H2	L8	L9	L7			kg	kg																	
1	40WQE10-10-0.75	40	0.75	2950	380	10	125	175	/	/	/	/	/	/	/	/	/	/	/	/	6																
2	50WQE10-7-0.55	50	0.55																																		
3	50WQE10-10-0.75		0.75																																		
4	40WQE7-15-1.1	40	1.1			15	155	215																													
5	50WQE7-15-1.1	50																																			
6	50WQE15-15-1.5	50	1.5			235																															
7	50WQE15-20-2.2		2.2																																		
8	65WQE25-10-1.5		65																					1.5													
9	65WQE25-15-2.2	2.2																																			
10	80WQE40-10-2.2	80	30			165	235																														
11	100WQE50-7-2.2	100																																			
12	50WQE15-27-3	50	3			1475		25														150	270														
13	50WQE15-31-4		4																																		
14	50WQE15-37-5.5		5.5					30														185	270														
15	50WQE20-40-7.5	65	7.5																																		
16	65WQE30-15-3		3					30														165	235														
17	65WQE30-23-4		4																																		
18	65WQE30-29-5.5	65	5.5																			170	270														
19	65WQE30-35-7.5		7.5					80																													
20	80WQE40-12-3	80	3					180														235															
21	80WQE40-16-4		4																																		
22	80WQE40-22-5.5		5.5					35														175	270														
23	80WQE45-25-7.5	100	7.5																																		
24	100WQE60-9-3		3					45														210	330														
25	100WQE6-10-4		4																			165	270														
26	100WQE65-15-5.5	100	5.5																																		
27	100WQE80-15-7.5		7.5					150														210	330														
28	150WQE100-9-5.5	150	5.5																			210	270														
29	150WQE100-12-7.5		7.5																																		
30	150WQE135-10-7.5		7.5	80	290			340																													
31	65WQE20-56-11	65	11	1475		35	215	330																													
32	80WQE40-45-11	80	11																																		
33	80WQE45-55-15		15																																		
34	100WQE80-25-11	100	11	1475		35	330	410	357	4-Φ14	920	730	210	220	235	255	●	60	220	240																	
35	100WQE80-30-15		15																																		
36	100WQE100-25-15																																				
37	100WQE80-35-18.5		18.5																																		
38	100WQE100-30-18.5																																				
39	100WQE100-37-22		22																																		



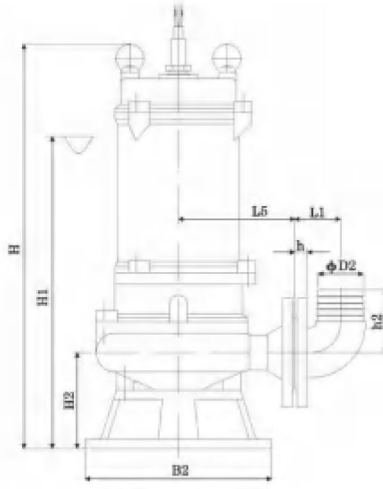
Dimension drawing of pump appearance



Dimension drawing of stirring pump (JY)



Hard pipe (double flange elbow/joint) mobile installation



Soft pipe (elbow) mobile installation

WQE installition dimension table

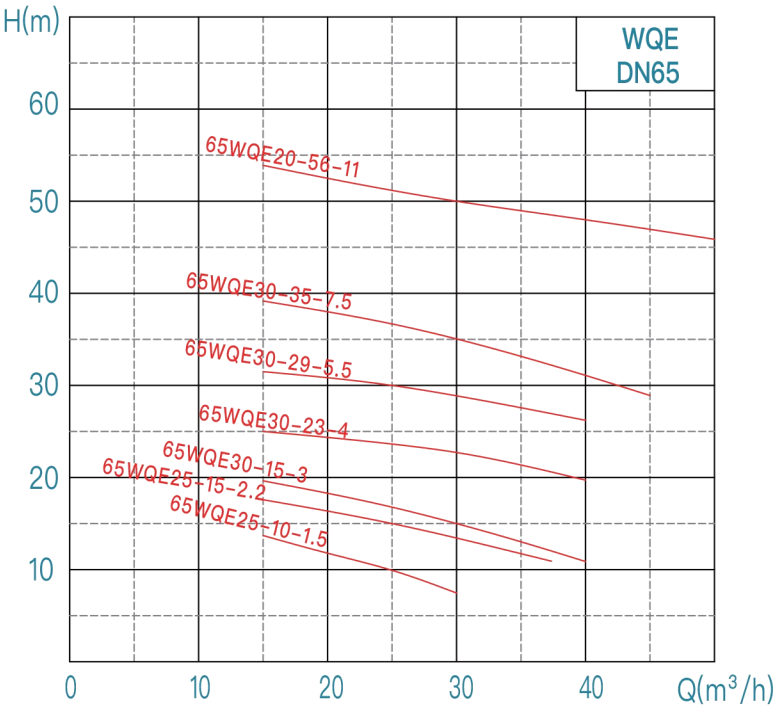
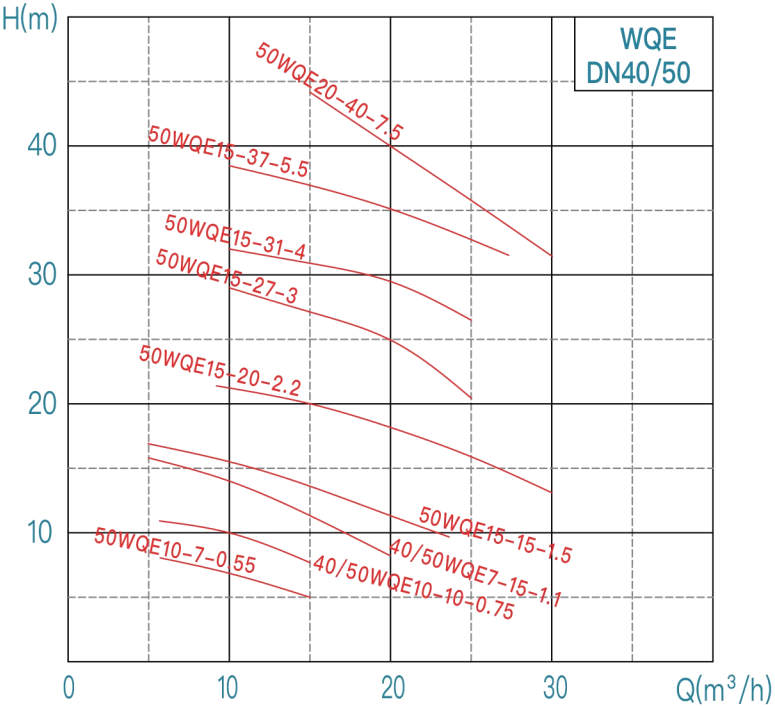
No.	WQE model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)									304 impeller	Stirring (JY) H、H1、H2 needs to be increased	Weight	Pressure grade of pump outlet flange				
		mm	kW	r/min	V	mm	L5	B2	B4	n3-d3	H	H1	H2	L8	L9					L7	kg	kg	
40	150WQE130-15-11	150	11	1475	380	45	355	430	380	4-Φ14	950	750	260	205	225	255	●	60	220	6			
41	150WQE170-18-15		15				355	430	380	4-Φ14	1000	800	260	205	225	255		60	240				
42	150WQE180-20-18.5		18.5				355	430	380	4-Φ14	1100	900	260	205	225	255		80	290				
43	150WQE180-25-22		22				355	430	380	4-Φ14	1150	950	260	205	225	255		80	300				
44	200WQE300-7-11	200	11			55	365	430	380	4-Φ14	950	750	260	215	235	265	●	60	230	6			
45	200WQE250-13-15		15				365	430	380	4-Φ14	1000	800	260	215	235	265		60	250				
46	200WQE250-15-18.5		18.5				365	430	380	4-Φ14	1100	900	260	215	235	265		80	290				
47	200WQE250-17-22		22				365	430	380	4-Φ14	1150	950	260	215	235	265		80	310				
48	250WQE400-6-11 *	250	11			80	350	400	340	4-Φ22	1000	800	245	210	260	310	/	/	255	10			
49	250WQE400-8-15 *		15				350	400	340	4-Φ22	1100	850	245	210	260	310			275				
50	250WQE400-9-18.5 *		18.5				370	400	340	4-Φ22	1120	910	235	235	285	325			315				
51	250WQE400-10-22 *		22				370	400	340	4-Φ22	1120	910	235	235	285	325			335				
52	100WQE120-42-30 *	100	30			35	360	515	435	4-Φ28	1380	970	285	260	265	270	/	/	435	6			
53	100WQE130-45-37 *		37				360	515	435	4-Φ28	1500	1050	285	260	265	270			510				
54	100WQE120-55-45 *		45				360	515	435	4-Φ28	1600	1150	285	260	265	270			520				
55	100WQE150-60-55 *		55				360	515	435	4-Φ28	1650	1200	285	260	265	270			650				
56	150WQE180-30-30	150	30			45	380	520	467	4-Φ16	1250	1000	290	250	280	310	●	80	435	6			
	150WQE250-22-30		37				380	520	467	4-Φ16	1250	1000	290	250	280	310		80	435				
57	150WQE180-34-37						380	520	467	4-Φ16	1250	1000	290	250	280	310		0	500				
	150WQE250-27-37						380	520	467	4-Φ16	1250	1000	290	250	280	310		0	500				
58	150WQE250-34-45	200	45			55	380	520	467	4-Φ16	1300	1050	270	250	280	310	/	0	510	6			
59	150WQE200-50-55 *		55				410	515	435	4-Φ28	1600	1150	245	265	285	310		/	/		640		
60	200WQE360-16-30		30				390	520	467	4-Φ16	1250	1000	290	250	280	310		80	445				
61	200WQE350-22-37	250	37				390	520	467	4-Φ16	1250	1000	290	250	280	310	●	0	520				
62	200WQE400-25-45		45				390	520	467	4-Φ16	1350	1100	300	270	300	330		0	530				
63	200WQE300-38-55 *		55				400	515	435	4-Φ28	1650	1200	265	265	270	290		/	/		670		
64	250WQE600-9-30	250	30			70	390	520	467	4-Φ16	1300	1050	300	270	300	340	●	80	455	10			
65	250WQE600-13-37		37				390	520	467	4-Φ16	1350	1100	300	270	300	340		0	530				
66	250WQE600-17-45		45				390	520	467	4-Φ16	1400	1150	300	270	300	340		0	540				
67	250WQE600-20-55 *	300	55				440	515	435	4-Φ28	1700	1250	285	275	320	360	/	710	10				
68	300WQE800-7-30 *		30				410	490	/			1400	1000	255	270	320		480					
69	300WQE900-7-37 *		37				410	490				1500	1050	255	270	320		550					
70	300WQE900-9-45 *	350	45				410	490				1550	1100	255	270	320		560					
71	300WQE800-15-55 *		55				410	490				1700	1250	255	270	320		730					
72	350WQE1000-6-30 *	350	30	980	1475	90	520	590	/			1550	1100	280	345	410	/	505	6				
73	350WQE1000-7-37 *		37				520	590				1550	1100	280	345	410		656					
74	350WQE1000-10-45 *		45				510	530				1600	1150	285	300	380		450		580			
75	350WQE1100-10-55 *		55				510	530				1700	1250	285	300	380		750					
76	150WQE200-55-75 *	150	75	1475	380	40	440	515	435	4-Φ28	1700	1200	255	295	315	335	/	720	6				
77	150WQE240-60-90 *		90				440	515	435	4-Φ28	1700	1200	255	295	315	335		880					

WQE installition dimension table

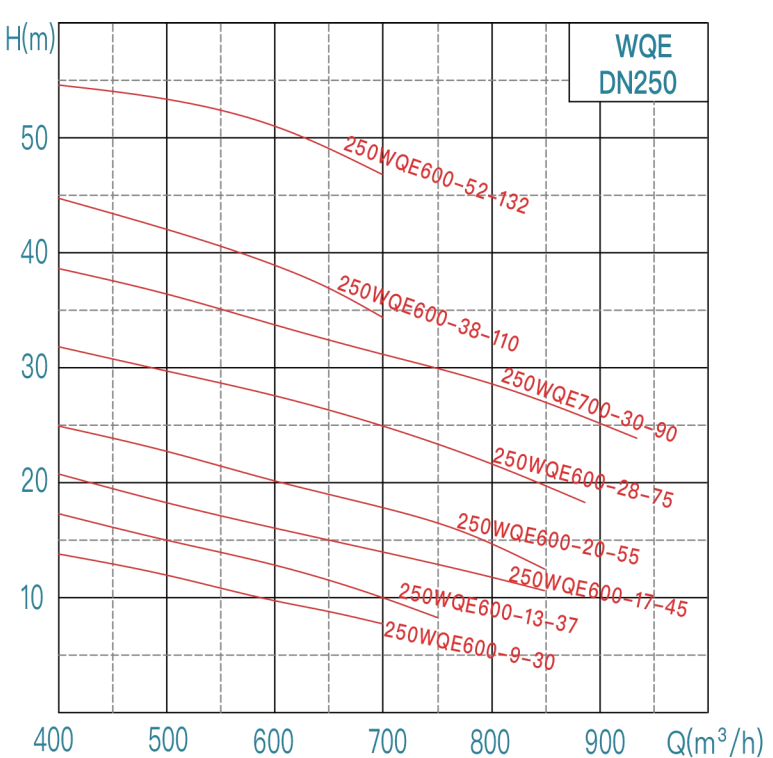
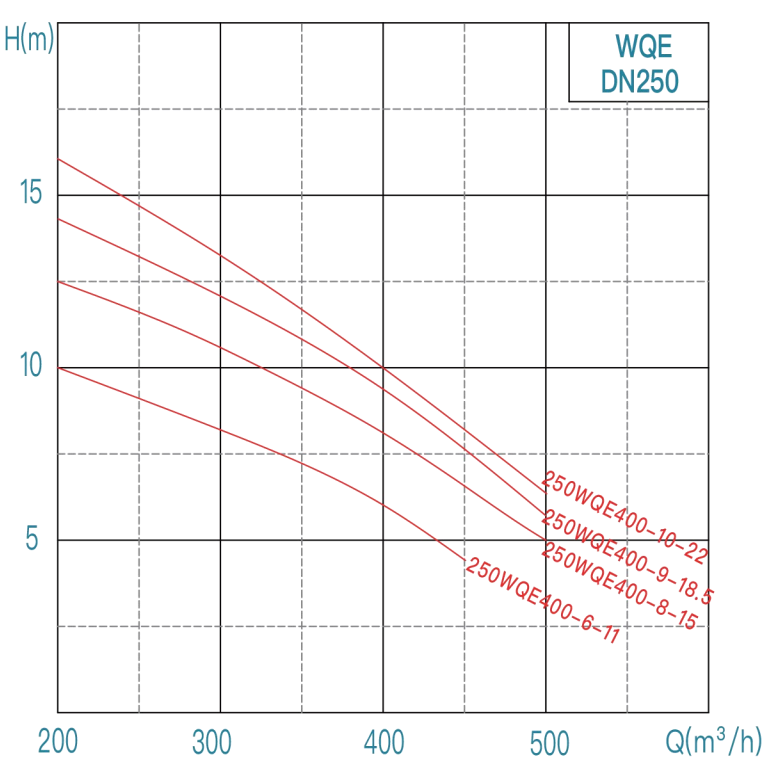
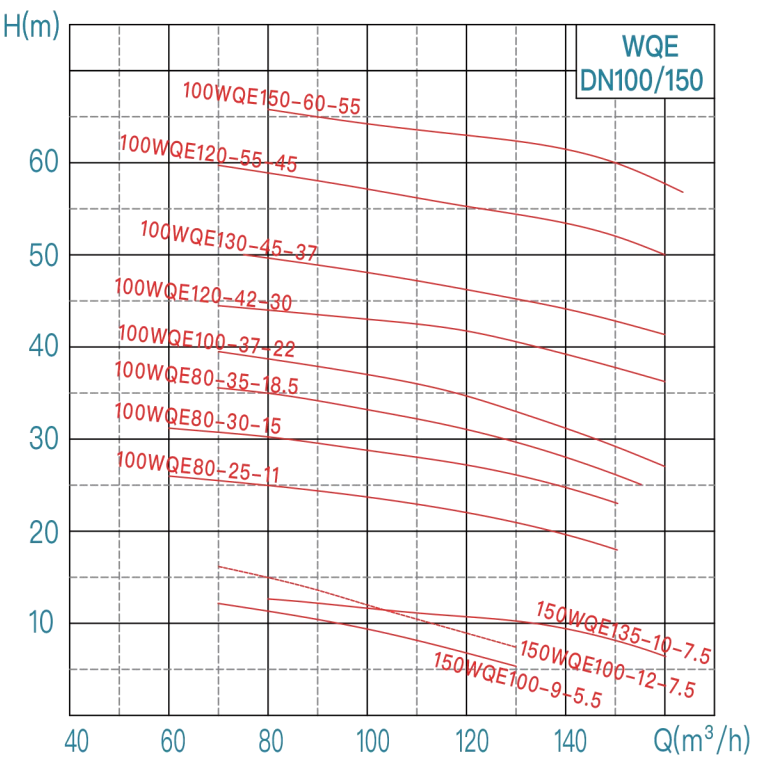
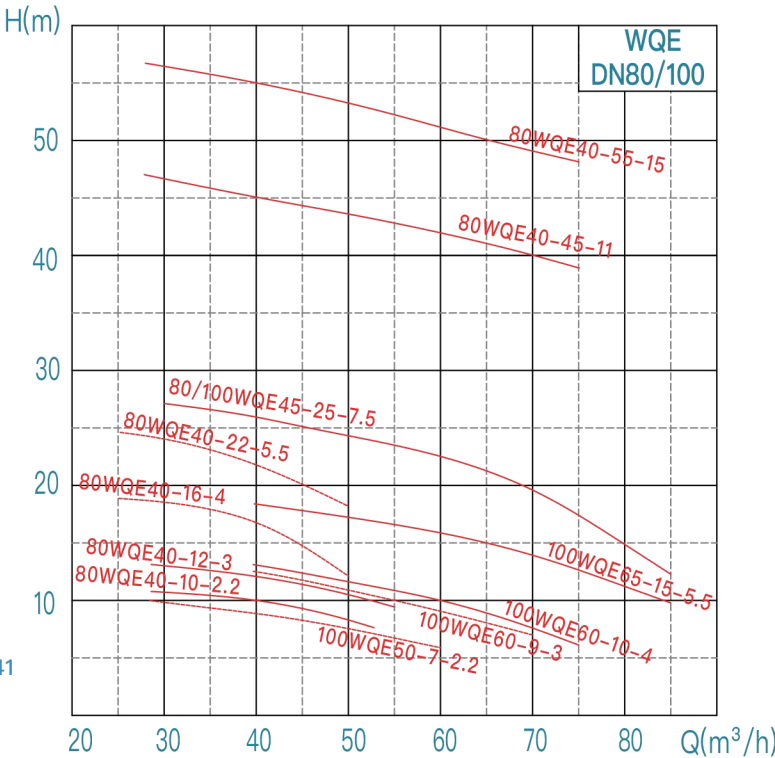
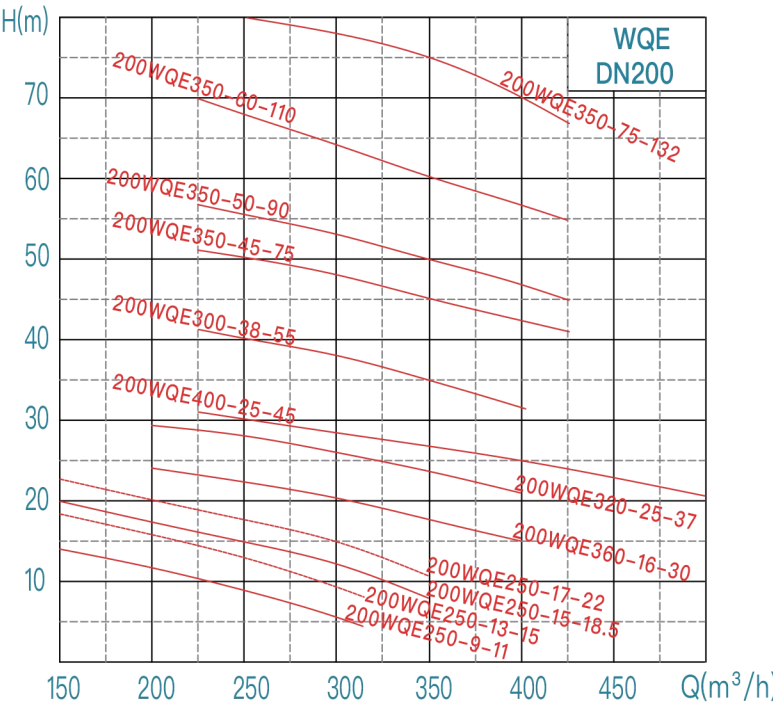
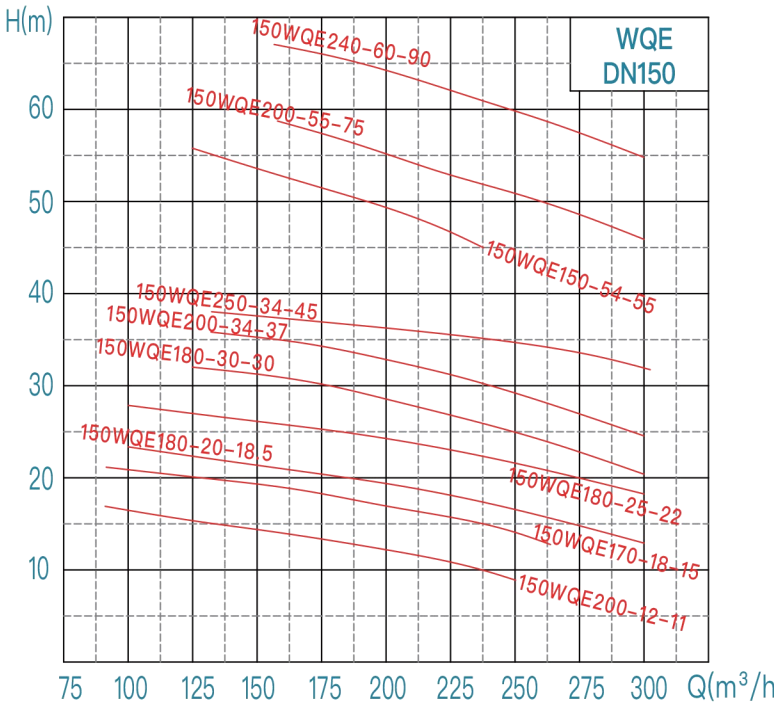
No.	WQE model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)										304 impeller	Stirring (JY) H、H1、H2 needs to be increased	Weight	Pressure grade of pump outlet flange		
		mm	kW	r/min	V	mm	L5	B2	B4	n3-d3	H	H1	H2	L8	L9	L7			kg	kg		
78	200WQE350-45-75 *	200	75	1475	380	50	460	515	435	4-Φ28	1750	1250	270	300	325	355	/	770	6			
79	200WQE350-50-90 *		90				460	515	435	4-Φ28	1850	1350	270	300	325	355		930				
80	200WQE350-60-110 *		110				545	580	/		1900	1400	215	340	360	385		1300				
81	200WQE350-75-132 *		132				545	580			2000	1500	215	340	360	385		1390				
82	250WQE600-28-75 *	250	75			60	480	515	435	4-Φ28	1800	1300	305	310	350	385		760				
83	250WQE700-30-90 *		90				480	515	435	4-Φ28	1900	1400	305	310	350	385		810				
84	250WQE600-38-110 *		110				75	540	730	660	4-Φ24	2000	1500	320	370	375		380		1300		
85	250WQE600-52-132 *		132					540	730	660	4-Φ24	2100	1600	320	370	375		380		1390		
86	300WQE800-18-75 *	300	75			75	460	515	/			1800	1300	255	280	320		360		830		
87	300WQE900-22-90 *		90				460	515				1900	1400	255	280	320		360		980		
88	300WQE900-27-110 *		110				90	485				580	2000	1500	255	385		400		420		1300
89	300WQE800-35-132 *		132					485				580	2200	1600	255	385		400		420		1420
90	350WQE1200-15-75 *	350	75	980		110	565	650	/			2000	1400	285	410	455	510	1165		10		
91	350WQE1100-18-90 *		90				565	650				2000	1400	285	410	455	510	1440				
92	350WQE1000-24-110 *		110	1475	90	565	650	2000	1500	285	410	455	510	1370								
93	350WQE1400-17-110 *		110	980	110	565	650	2100	1500	285	410	455	510	1640								
94	350WQE1000-30-132 *	132	1475	90	565	650	2000	1500	285	410	455	510	1450									
95	350WQE1500-18-132 *	132	980	120	710	730	660	4-Φ24	2350	1800	420	470	550	620	1650							
96	400WQE1300-8-55 *	400	55	980	110	590	640	/			1800	1300	310	380	455	510	926					
97	400WQE1400-12-75 *		75			590	650				2100	1500	315	410	455	510	1180					
98	400WQE1500-15-90 *		90			590	650				2100	1500	315	410	455	510	1470					
99	400WQE1500-17-110 *		110			590	650				2150	1550	315	410	455	510	1670					
100	400WQE2000-13-132 *	132	120		715	830	2250	1700	315	485	530	620	1680									
101	500WQE1800-7-55 *	500	55		110	110	690	800	/			1800	1300	365	425	520	600		985			
102	500WQE1800-9-75 *		75				690	800				2000	1450	365	425	520	600		1230			
103	500WQE2000-10-90 *		90				690	800				2000	1450	365	425	520	600		1500			
104	500WQE2500-10-110 *		110				690	800				2200	1650	365	425	520	600		1720			
105	500WQE2500-12-132 *		132				120	720				830	2300	1750	370	485	555		620	1740		

VATTURE PUMP

WQE performance curve chart (50Hz)

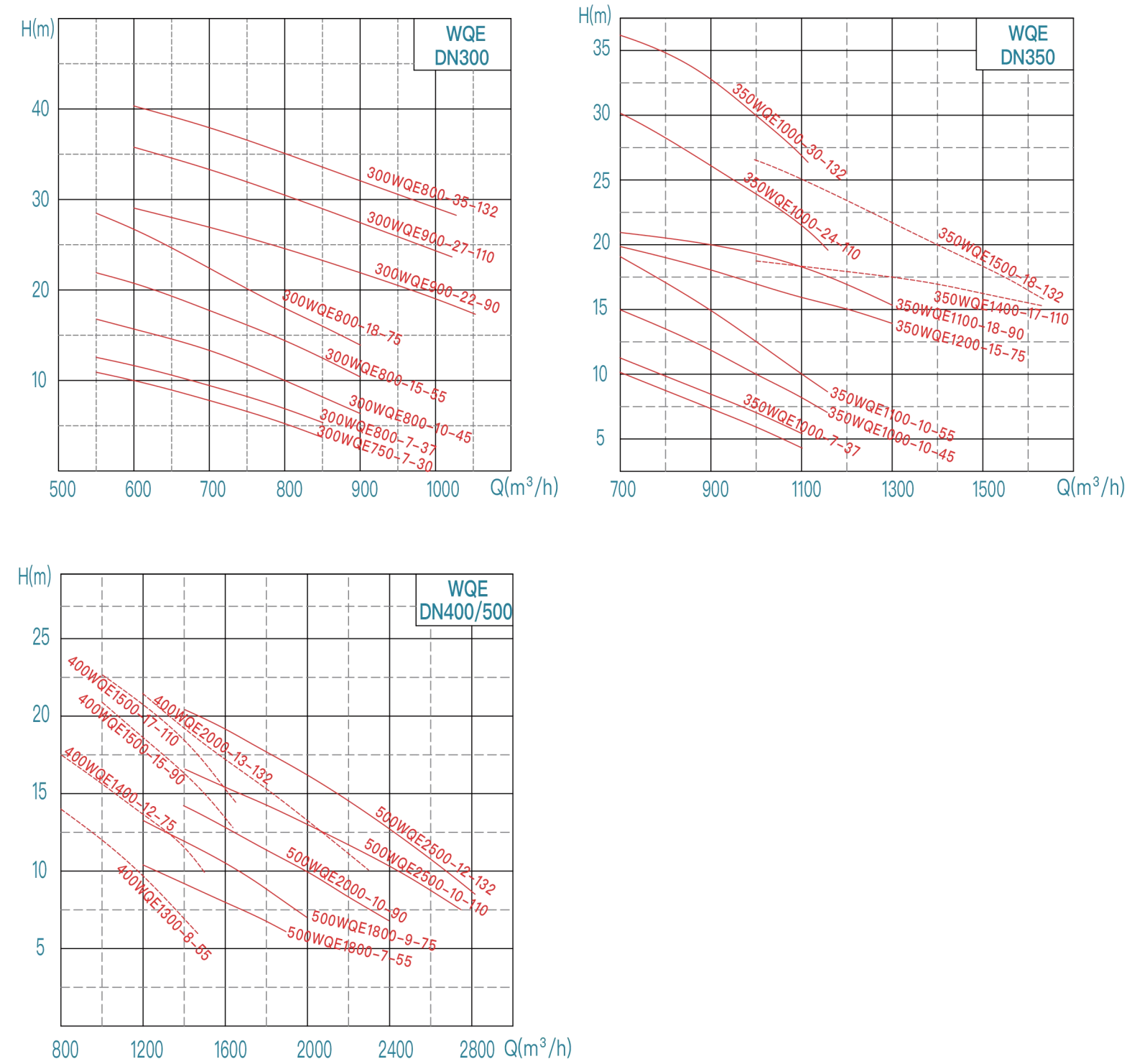


WQE performance curve chart (50Hz)



VATTURE PUMP

WQE performance curve chart (50Hz)



WQF stainless steel
submersible sewage pump ►

WQF

Stainless steel

Submersible sewage pump

Customizable Materials:

304/ 316/ 316L/

2205/ 2507



Scope of application:

municipal engineering、
sewage treatment、
chemical engineering、
hydraulic engineering、
seawater treatment、
environment treatment ...

Operating Conditions:

Flow Rate: 7 ~ 600 m³/h
Head: 7 ~ 55 m
Medium Temperature: T ≤ 40°C
Medium Density: ≤ 1100 kg/m³; Solid phase volume ratio in the medium is less than 3%
Medium pH Range: 4 ~ 11
Motor Insulation Class: Class F (standard), Class H (optional)
Protection Class: IP68
Minimum Operating Liquid Level: See "▽" in the installation dimension drawing (without motor cooling system); if the user's water level is lower than "▽", please contact the company's technical department.
The maximum diameter of solids in the medium should be less than the minimum size of the flow channel. The allowable solid passing diameter is detailed in the specific pump model size table.
Standard cable length is 9 meters. If a specific cable length is required, it can be specified in the order (Note: Voltage drop must be calculated).

Product Introduction:

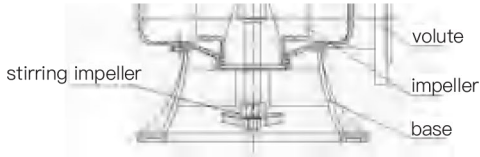
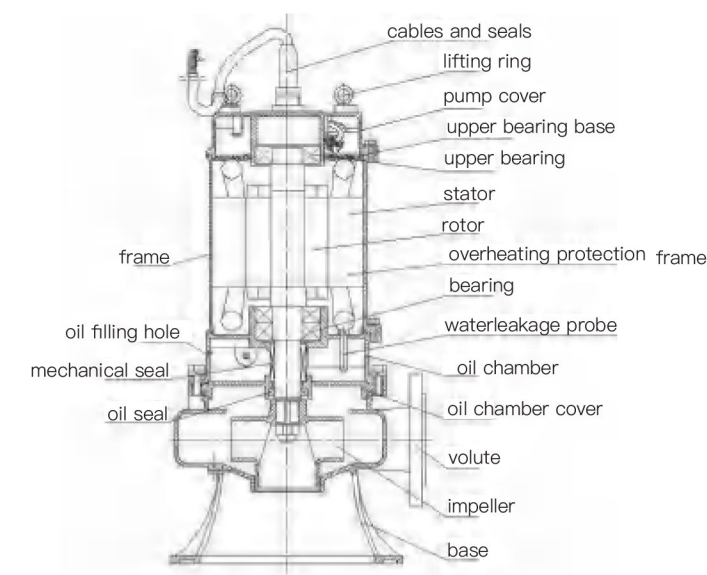
The WQF series stainless steel submersible sewage pumps from Hangzhou Xizi Pump Industry are specialized products developed with advanced technology. The pump's flow components are all made of stainless steel through precision casting, ensuring pure quality and an attractive appearance. They are self-pollution-free and corrosion-resistant, expanding the application fields of water supply and drainage.



VATTURE PUMP

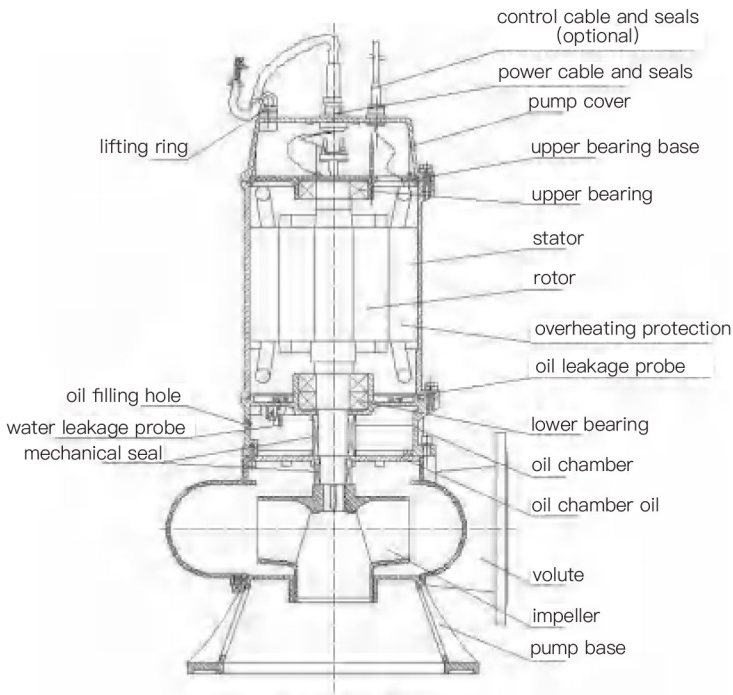
Structure diagram of WQF products

Main materials and configuration table

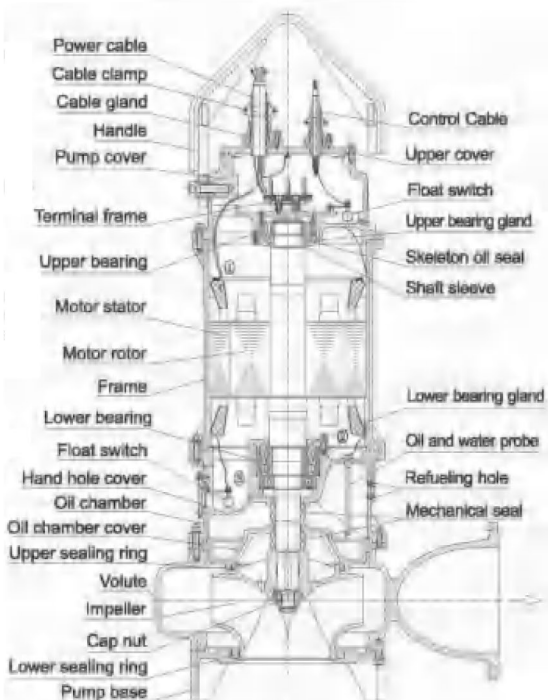


structure diagram for stirring base

Structure diagram for 7.5kW and below



Structure diagram for 11~45 kW



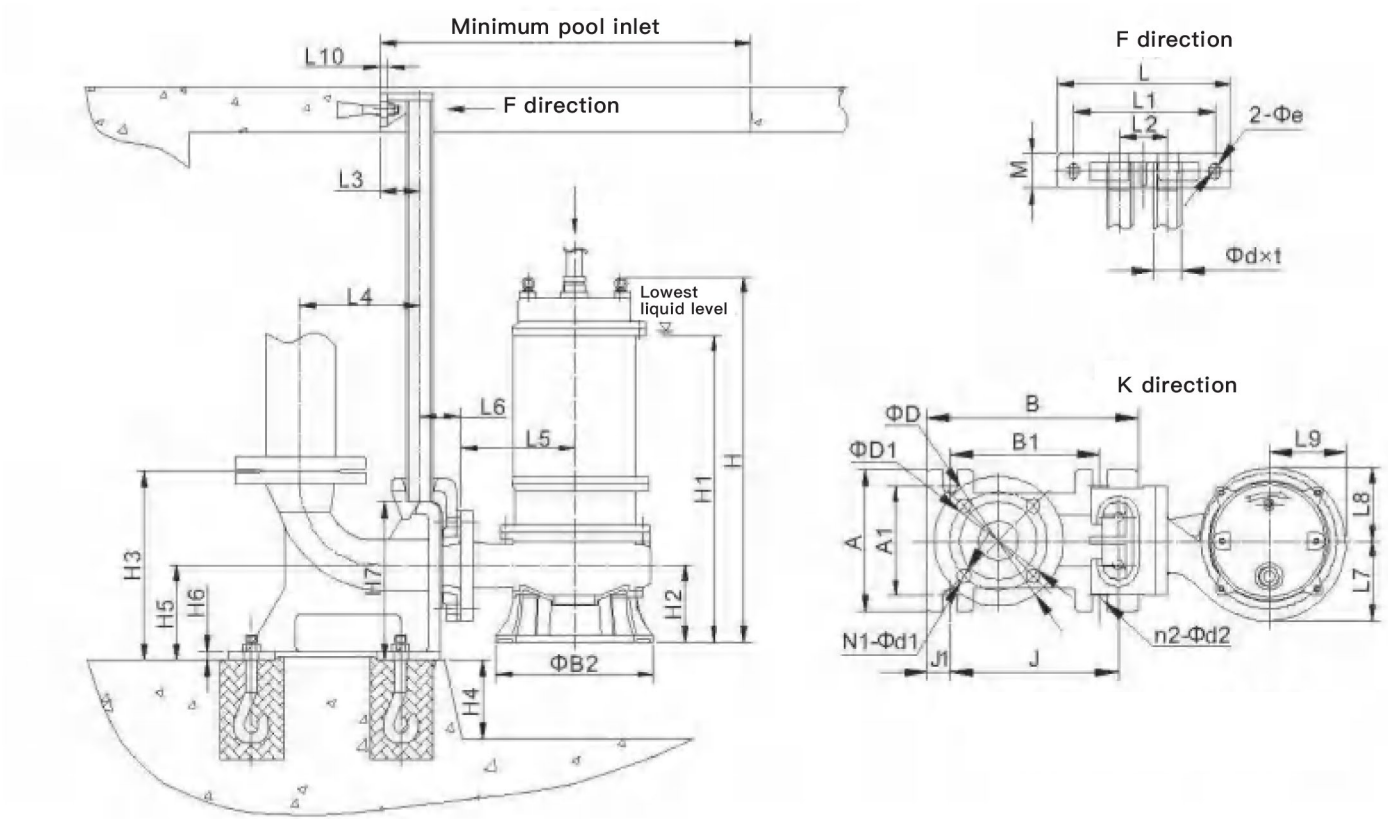
Structure diagram for 55kW and above

No.	Name		Standard	Optional
1	Volute (pump body, pressurized water chamber)		304	/
2	Impeller		304	/
3	Oil chamber cover		304	/
4	Oil chamber, Motor frame Pump cover, Upper cover, Pump base		304	/
5	Motor insulation class		F (155℃)	H (180℃)
6	Shaft		304	/
7	Bearing brand		Domestic	SKF/NSK
8	Mechanical seal	Brand	Domestic	Bergman
9		Motor side friction pair	Graphite/SiC (AQ1)	SiC/WC (Q1U1)
10		Pump side friction pair	SiC/WC (Q1U1)	WC/WC (U1U2)
11		Spring	Stainless steel	/
12	Rubber parts		(P)	/
13	O-ring		(P)	/
14	External leakage fastener		A2-70	/
15	Protection device (optional)	45kW and below	Water leakage probe/Float switch /Overheating protection	Order remarks according to customer requirements.

Specification/model of submersible motor cable

Motor power (kW)	Cable model	Standard main cable specification	Star delta	Model of controlling cable
0.55	YZW 300/500V	YZW 4×0.75	/	Multicore cable
0.75				
1.1				
1.5				
2.2		YZW 4×1		
3				
4				
5.5				
7.5		YZW 3×1.5+1×1		YZW 4×0.75 (Non–standard)
	YZW 3×2.5+1×1.5			
11/15–2P	YCW 450/750V	YZW 3×6+1×4	2–YZW 3×2.5+1×1.5	YZW 4×1 (Non–standard)
11/15–4P				
18.5			2–YZW 3×6+1×4	
22		YCW 3×10+1×6		
30		YCW 3×16+1×16	2–YCW 3×10+1×6	
37		YCW 3×25+1×10	2–YCW 3×16+1×16	
45				
55		YCW 3×35+1×10		YZW 6×1 (Standard)

Installition dimension drawing

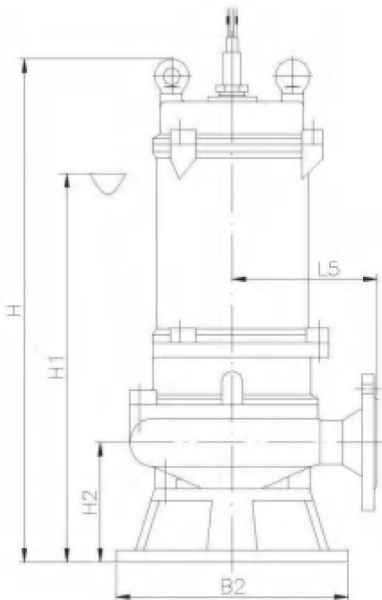


Fange coupling parts dimension table

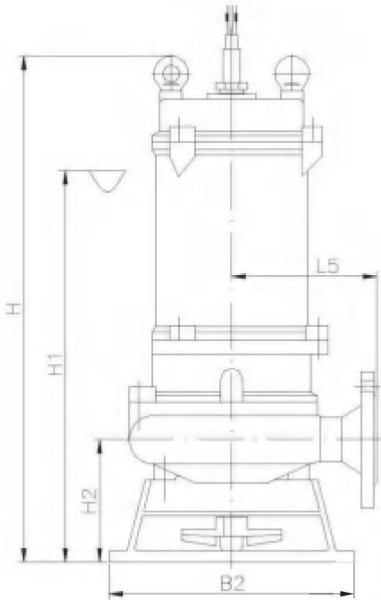
Model DN	Flange Connection Size			Coupling Base Size																						Φdxt
	D	D1	N1–Φd1	A	A1	B	B1	J	J1	n2–Φd2	H3	H4	H5	H6	H7	L	L1	L2	M	Φe	L3	L4	L6	L10		
50	165	125	4–Φ19	180	140	270	190	214	30	4–Φ19	240	100	120	12	200	220	180	60	44	Φ12	50	152	52	10	Φ33×3	
65	180	145		190	150	280	190	221	30		240	100	120	12	200	220	180	60	44		50	149	55	10		
80	195	160	8–Φ19	210	170	300	210	237	30		270	150	130	12	225	250	210	80	50	Φ15	57	165	63	10	Φ48×3	
100	215	180		230	190	300	210	237	30		300	150	150	14	260	250	210	80	50		57	185	63	10		
150	280	240	8–Φ23	300	250	460	330	367	50		380	150	180	18	320	330	280	120	60		62	305	76	12		
200	340	295		350	300	470	350	370	50		460	200	220	20	390	330	280	120	60		62	320	80	12		
250	395	350	12–Φ23	420	360	580	450	471	50	4–Φ25	500	200	240	20	450	340	280	160	70	Φ19	115	359	95	16	Φ76×3.5	
300	445	400		460	400	630	500	521	50		560	200	260	20	490	380	320	200	70		115	399	96	16		
350	505	460	16–Φ23	520	460	680	550	570	50		640	300	300	20	550	380	320	200	70		115	439	88	16		

WQF installition dimension table

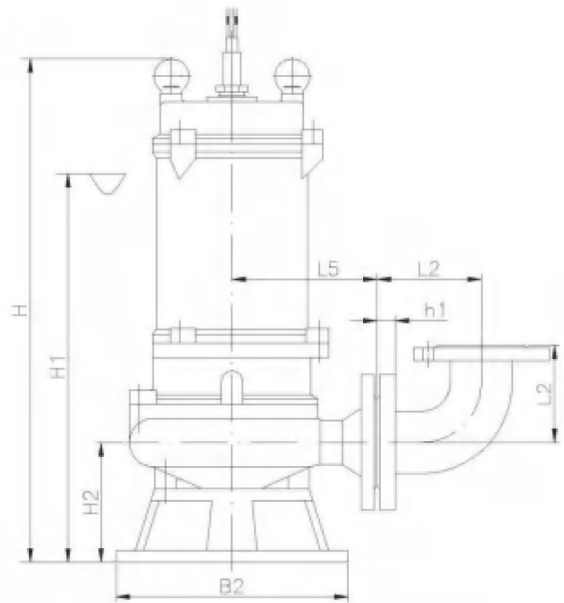
Pump appearance and moblie installition



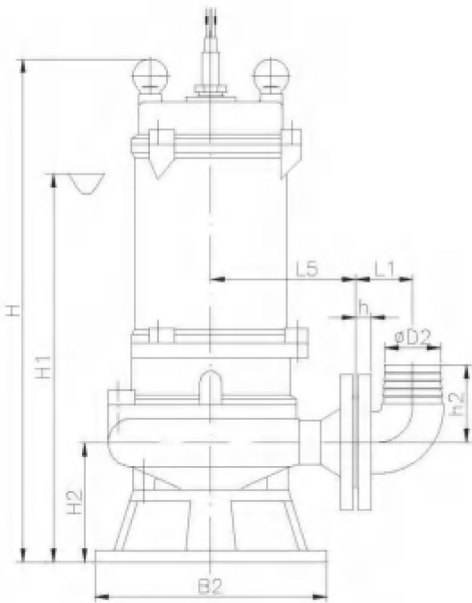
Dimension drawing of pump appearance



Dimension drawing of stirring pump (JY)



Hard pipe (double flange elbow/joint) mobile installition



Soft pipe (elbow) mobile installition

No.	WQF model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Stirring (JY) H、H1、H2 needs to be increased	Weight		
		mm	kW	r/min	V	mm	L5	B2	H	H1	H2	L8	L9	L7		kg		
1	50WQF10-7-0.55	50	0.55	2950	220/380	15	135	190	490	420	100	90	95	105	40	21		
2	50WQF10-10-0.75		0.75				135	190	490	420	100	90	95	105		21		
3	50WQF8-16-1.1		1.1				135	190	490	420	100	90	95	105		23		
4	50WQF15-9-1.1		1.1				135	190	490	420	100	90	95	105		23		
5	50WQF15-15-1.5		1.5				150	200	530	460	100	95	100	105		28		
6	50WQF15-22-2.2		2.2				150	200	530	460	100	95	100	105		31		
7	50WQF25-15-2.2		2.2				150	200	530	460	100	95	100	105		31		
8	50WQF15-30-3		3		380	20	150	200	550	480	100	105	110	115		36		
9	50WQF25-20-3		3				150	225	560	490	110	95	100	105		36		
10	50WQF15-35-4		4			15	170	240	600	520	134	120	125	130		49		
11	50WQF25-25-4		4				170	240	600	520	134	120	125	130		49		
12	50WQF15-40-5.5		5.5				170	240	600	520	134	120	125	130		54		
13	50WQF25-40-7.5		7.5				185	320	680	560	140	125	132	140		85		
14	65WQF25-8-1.5	65	1.5		220/380	25	160	200	530	460	95	90	100	115	28			
15	65WQF30-10-2.2		2.2		160		200	530	460	95	90	100	115	32				
16	65WQF35-16-3		3		380	25	160	225	560	490	110	90	100	115	36			
17	65WQF30-22-4		4				165	240	600	520	120	120	130	136	50			
18	65WQF20-30-4		4				165	240	600	520	120	120	130	136	50			
19	65WQF30-30-5.5		5.5				165	240	600	520	120	120	130	136	55			
20	65WQF30-35-7.5		7.5				200	320	680	560	140	125	132	140	85			
21	80WQF40-10-2.2		80				2.2	220/380	25	165	250	550	480	130	105	115	125	33
22	80WQF40-12-3				3	380	40	165		250	570	500	130	105	115	125	0	38
23	80WQF60-12-4				4			165		240	640	550	150	120	130	140		51
24	80WQF40-22-5.5	5.5			165			240		640	550	150	120	130	140	60		
25	80WQF65-15-5.5	5.5			165			240		640	550	150	120	130	140	60		
26	80WQF50-25-7.5	7.5			190			320		710	590	175	130	140	150	85		
27	100WQF60-9-3	100	3		380			30	180	250	580	510	140	105	120	135	40	39
28	100WQF80-8-4		4			175	240		650	560	155	125	137	150	0	51		
29	100WQF65-15-5.5		5.5			175	240		650	560	155	125	137	150		62		
30	100WQF80-18-7.5		7.5			190	320		730	610	180	130	150	170		85		
31	150WQF100-10-5.5	150	5.5			380	40	200	240	650	560	150	115	130	150	/	66	
32	150WQF130-8-5.5		5.5	1475				275	320	765	645	205	175	200	225		108	
33	150WQF100-13-7.5		7.5	2950	200			320	760	640	200	160	180	195	89			
34	150WQF135-10-7.5		7.5	1475	275			320	885	765	205	175	200	225	111			
35	65WQF20-56-11	65	11	2950	15		240	320	820	680	165	137	145	152	/	106		
36	80WQF50-45-11	80	11				240	320	820	680	165	137	145	152		106		
37	80WQF50-55-15		15			240	320	850	700	165	137	145	152	115				
38	80WQF60-50-22		22			250	440	970	720	177	175	180	185	184				

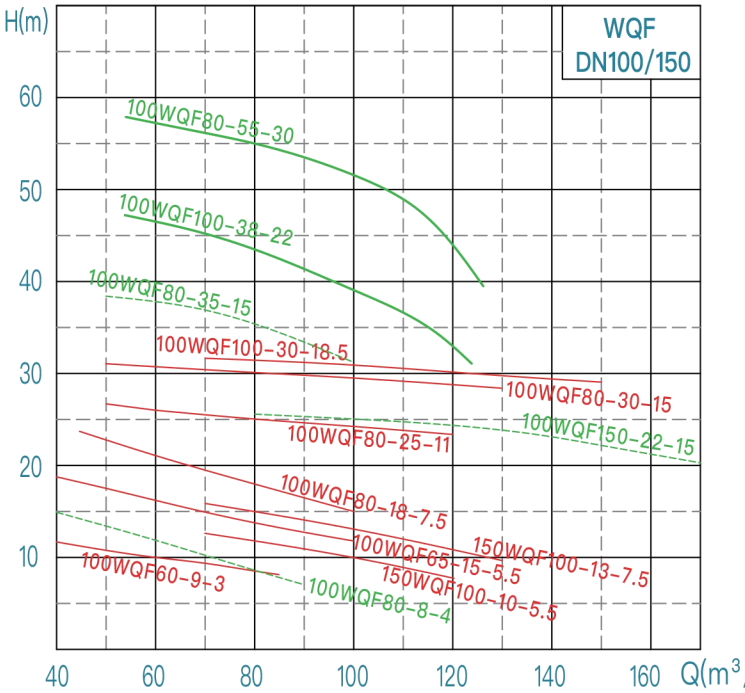
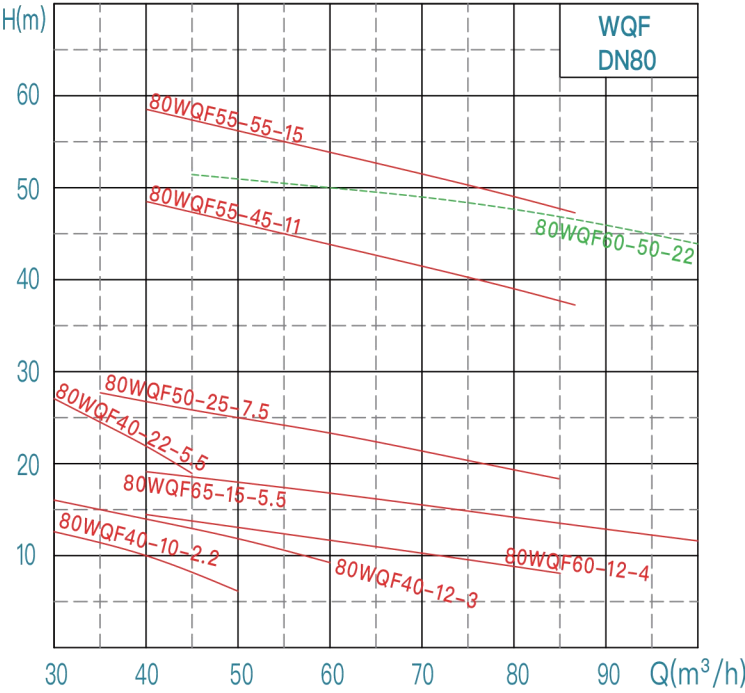
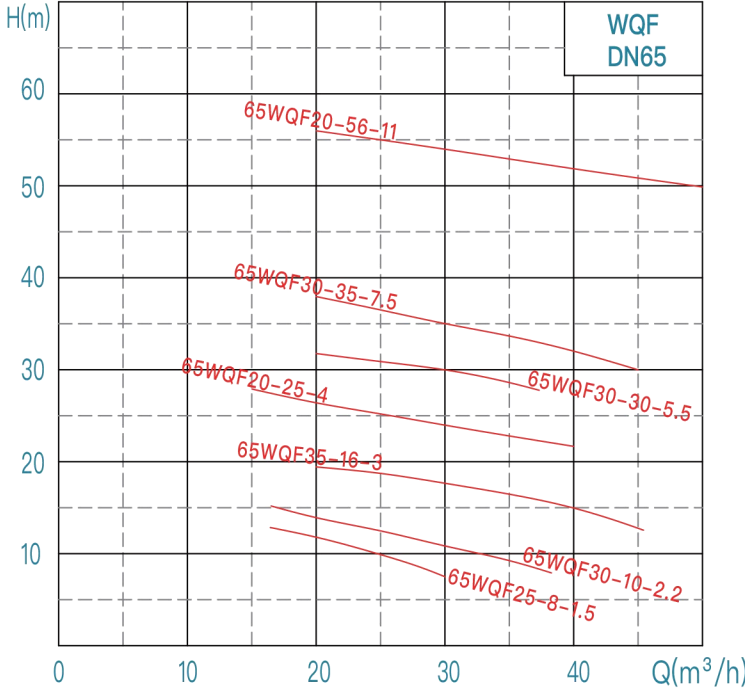
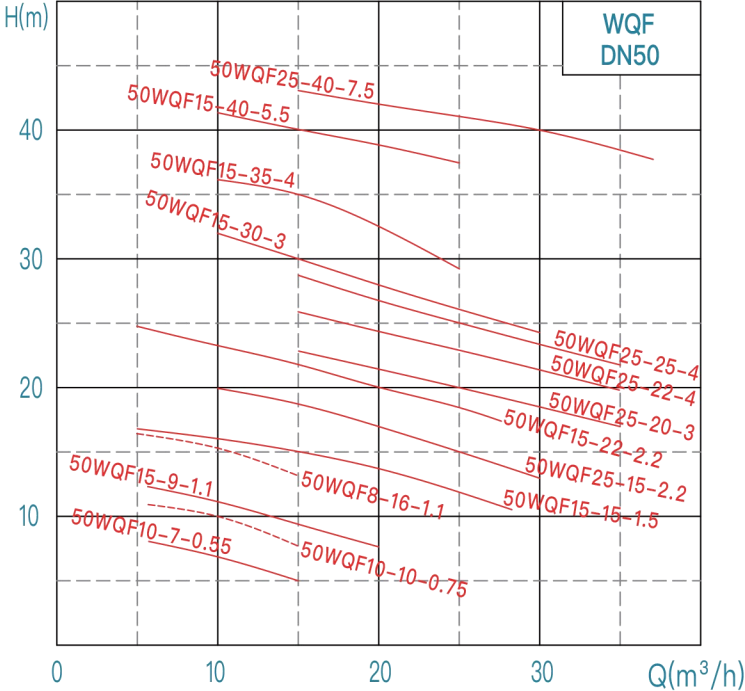
VATTURE PUMP

WQF
Stainless steel
Submersible sewage pump

WQF installition dimension table

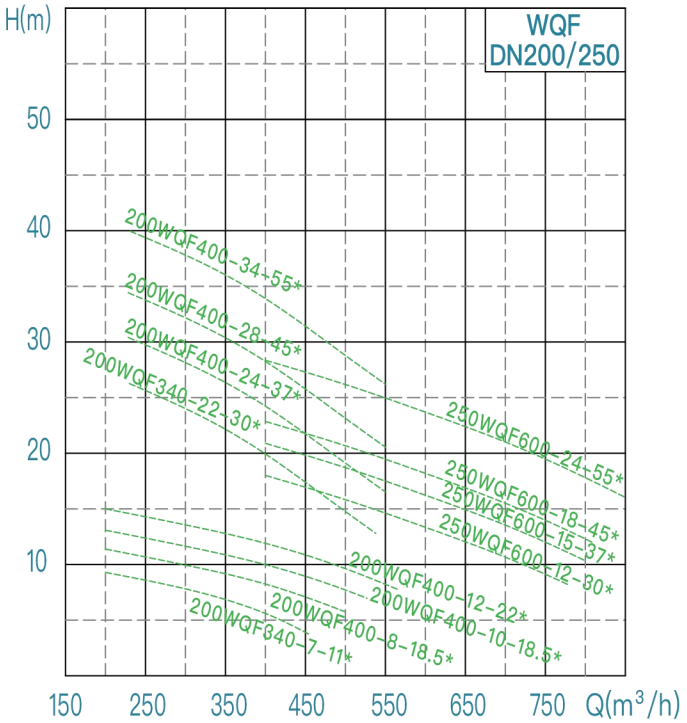
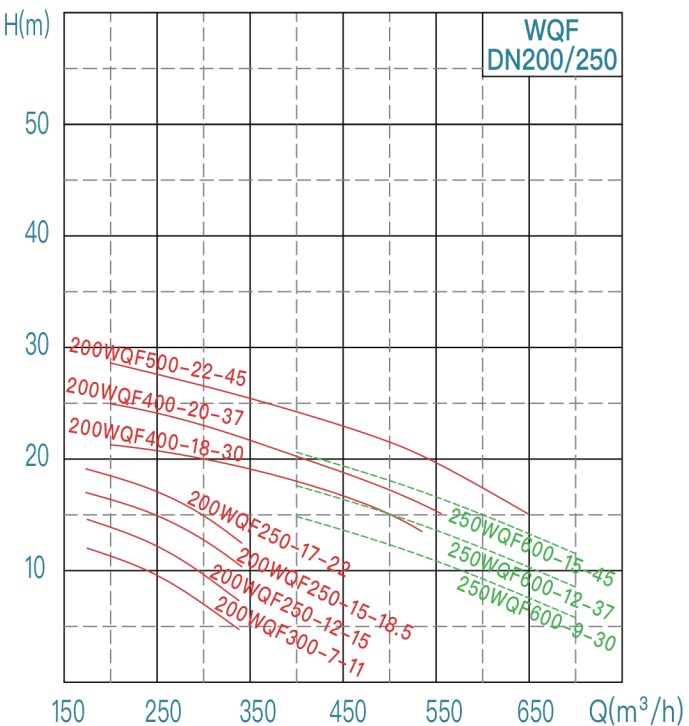
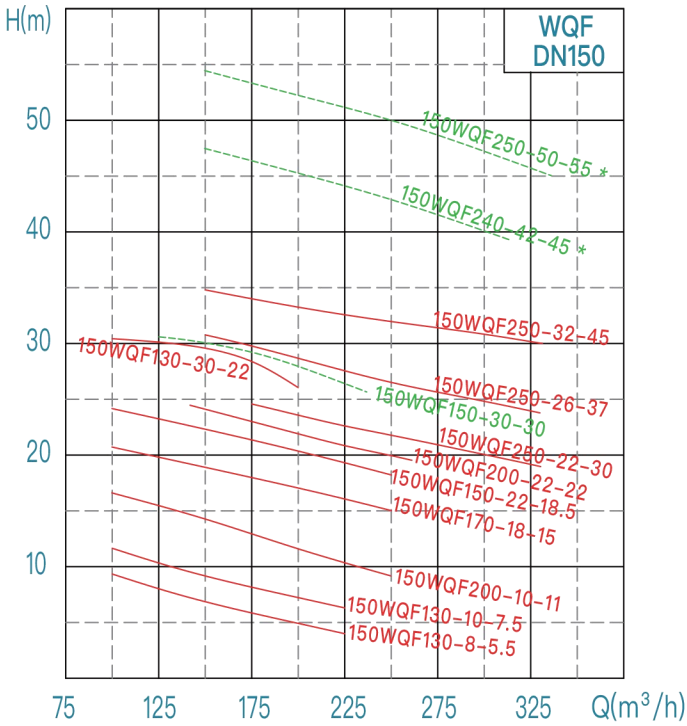
No.	WQF model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Stirring (JY) H、H1、H2 needs to be increased	Weight																		
		mm	kW	r/min	V	mm	L5	B2	H	H1	H2	L8	L9	L7		kg																		
39	100WQF80-25-11	100	11	1475	380	50	280	400	970	780	221	195	212	227	/	195																		
40	100WQF150-22-15		15				280	400	970	780	221	195	212	227		212																		
41	100WQF80-30-15															280	400	970	780	221	195	212	227	212										
42	100WQF80-35-15			2950		20	280	400	970	780	221	195	212	227		175																		
43	100WQF100-30-18.5															18.5	1475	50	280	400	1120	840	221	195	212	227	247							
44	100WQF100-34-22		22	2950		20	280	400	1170	890	221	195	212	227		264																		
45	100WQF80-55-30		30													280	400	1170	890	221	195	212	227	244										
46	150WQF200-10-11	150	11	1475		380	60	280	500	1100	830	243	223	240										258	195									
47	150WQF170-18-15		15													280	500	1100	830	243	223	240	258		212									
48	150WQF150-22-18.5		18.5													280	500	1150	860	243	223	240	258		255									
49	150WQF200-22-22		22													280	500	1200	910	243	223	240	258		264									
50	150WQF130-30-22																								50	350	500	1250	1000	230	242	260	278	383
51	150WQF150-30-30																																	350
52	150WQF250-22-30		30				37	50	350	500	1340	1100	230	242		260	278	440																
53	150WQF250-26-37																	45	350	500	1340	1100	230	242	260	278	449							
54	150WQF250-32-45																										55	500	400	1630	1050	210	260	275
55	150WQF 240-42-45 *		55				500	400	1630	1050	210	260	275	290		605																		
56	150WQF 250-50-55 *															200WQF300-7-11	200	1475	380	70	280	500	1100	830	243	248	265	285	203					
57	200WQF250-12-15	15	280	500		1100	830	243	248	265	285	221																						
58	200WQF250-15-18.5	18.5	280	500		1150	860	243	248	265	285	255																						
59	200WQF250-17-22	22	280	500		1200	910	243	248	265	285	273																						
60	200WQF400-18-30	30	320	500		1250	1000	245	250	270	285	391																						
61	200WQF400-20-37	37	320	500		1310	1050	245	250	270	285	458																						
62	200WQF500-22-45	45	320	500		1370	1150	245	250	270	285	467																						
63	250WQF600-9-30	250	30	1475		380	80	400	530	1350	1130	290	218	258		300	400																	
64	250WQF600-12-37		37					400	530	1400	1180	290	218	258		300	467																	
65	250WQF600-15-45		45					400	530	1400	1180	290	218	258		300	475																	
66	200WQF400-8-15 *		15					200	1475	380	80	420	500	1100		830	285	240	280	310	320													
67	200WQFW400-10-18.5 *	18.5	1150	860		330																												
68	200WQF400-12-22 *	22	1200	910		340																												
69	200WQF340-22-30 *	30	460	400		1560	980							215		250					280	310	523											
70	200WQF400-24-37 *	37				1640	1060	550																										
71	200WQF400-28-45 *	45						583																										
72	200WQF400-34-55 *	55				616																												
73	250WQF600-12-30 *	250	30	1475		380	80	530	400	1570	990	210	265	315		360	550																	
74	250WQF600-15-37 *		37							572																								
75	250WQF600-18-45 *		45							605																								
76	250WQF600-24-55 *		55							638																								
77																																		

WQF performance curve chart （50Hz）



VATTURE PUMP

WQF performance curve chart (50Hz)



WQA-QG cutting
submersible sewage pump ►

WQA-QG

Cutting

Submersible sewage pump



Scope of application:

municipal engineering、sanitary sewage、building works、industrial sewage, it can cut and convey ordinary plastic、fabrics、paper、fibers and food residues, etc

Operating Conditions:

Flow Rate: 10 ~ 180 m³/h
Head: 8 ~ 60 m
Medium Temperature: $T \leq 40^{\circ}\text{C}$
Medium Density: $\leq 1100 \text{ kg/m}^3$; Solid phase volume ratio in the medium is less than 3%
Medium pH Range: 4 ~ 10
Motor Insulation Class: Class F (standard), Class H (optional)
Protection Class: IP68
Minimum Operating Liquid Level: See "▽" in the installation dimension drawing (without motor cooling system); if the user's water level is lower than "▽", please contact the company's technical department.
The maximum diameter of solids in the medium should be less than the minimum size of the flow channel. The allowable solid passing diameter is detailed in the specific pump model size table.
Standard cable length is 9 meters. If a specific cable length is required, it can be specified in the order (Note: Voltage drop must be calculated).

Product Introduction:

The WQA-QG submersible sewage pump with a cutting impeller features a novel, aesthetically pleasing, and highly stable structure. Both the impeller and the cutting disc have sufficient hardness, providing excellent cutting performance for non-tough debris in the medium. Moreover, the cutting disc is equipped with a plum-shaped cutting edge to prevent entanglement at the inlet. (The length of debris that can be passed should not exceed twice the outlet diameter, and the particle diameter requirements are shown in the table.)

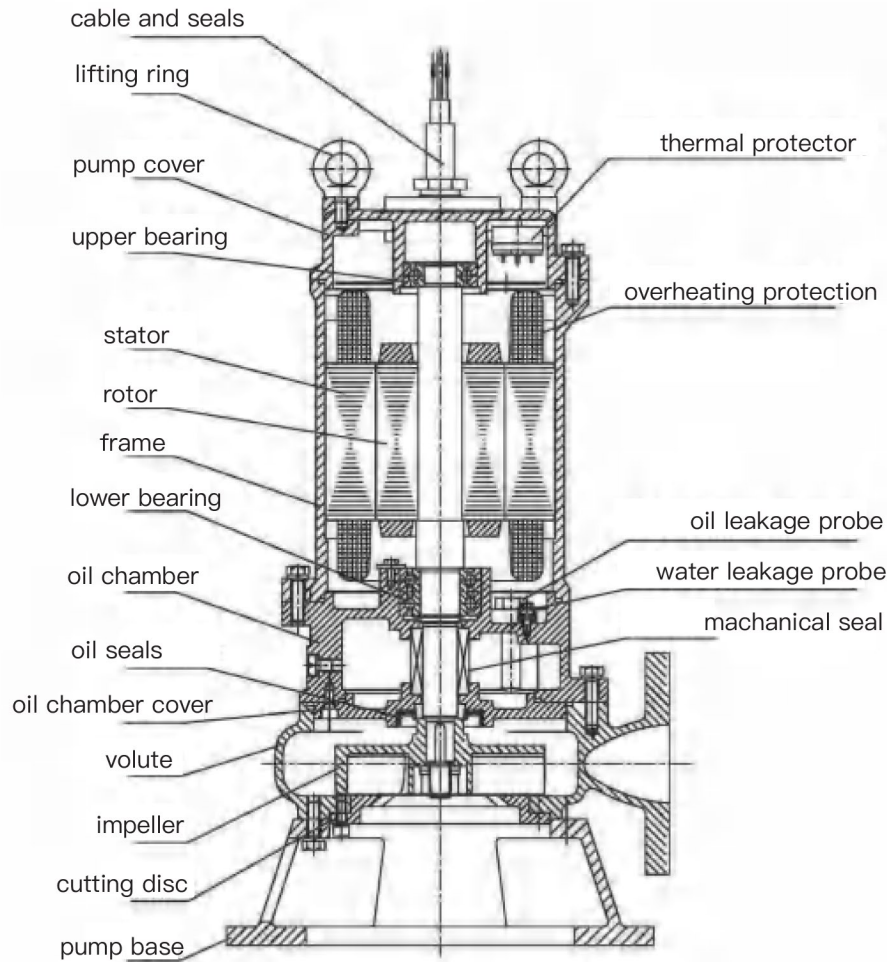
Limitations of Cutting Pumps

Although cutting pumps have strong cutting capabilities, they are not omnipotent. After prolonged use, the cutting head will wear out, leading to a decline in cutting performance. Additionally, the cutting head is prone to being entangled and blocked by long fibers and tough debris. Once this occurs, the cutting pump will fail to operate normally and may even result in damage to the cutting head. This indicates that cutting pumps may encounter difficulties in handling certain types of debris, such as long fibers and tough materials like hair and fabric scraps.



Structure diagram of cutting pump

Structure diagram of WQA-QG products



cutting disc /cutting impeller

Main materials and configuration table

No.		Name	Standard	Optional
1		Volute (pump body, pressurized water chamber)	QT500	/
2		Impeller	QT500	/
3		Cutting disc	QT500	/
4		Oil chamber, Motor frame Pump cover, Upper cover, Pump base	HT200	/
5		Motor insulation class	F (155℃)	H (180℃)
6		Shaft	2Cr13	/
7		Bearing brand	Domestic	SKF/NSK
8	Mechanical seal	Brand	Domestic	Bergman
9		Motor side friction pair	Graphite/SiC (AQ1)	SiC/WC (Q1U1)
10		Pump side friction pair	SiC/SiC (Q1Q2)	SiC/WC (Q1U1)
11		Spring	Stainless steel	/
12		Rubber parts	(P)	/
13		O-ring	(P)	/
14		External leakage fastener	A2-70	/
15	Protection device (optional)	15kW and below	Order remarks according to customer requirements.	Water leakage probe/Float switch /Overheating protection

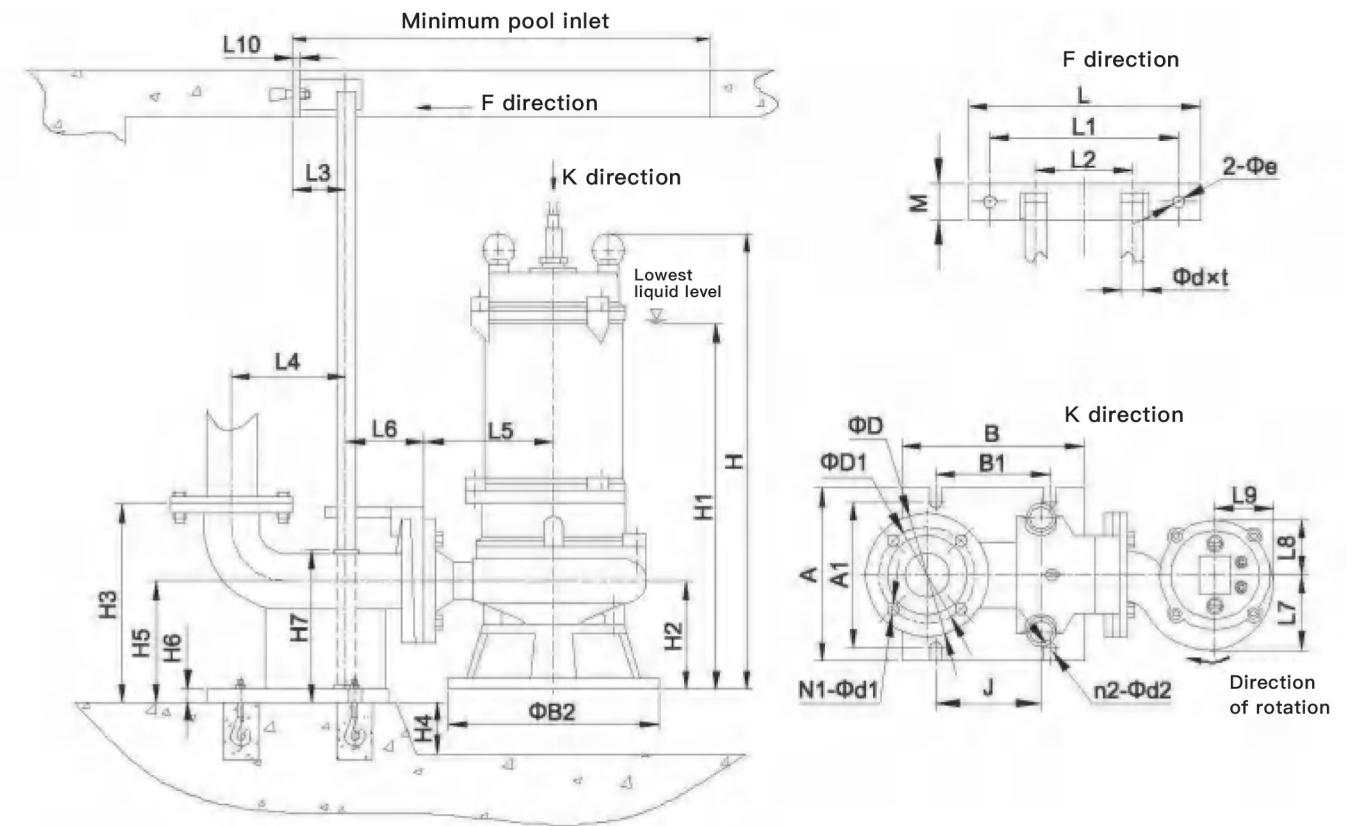
VATTURE PUMP

WQA-QG
Cutting
Submersible sewage pump

installtion dimension drawing

Specification/model of submersible motor cable

Motor power (kW)	Cable model	Standard main cable specification	Star delta	Model of controlling cable
0.55	YZW 300/500V	YZW 4×0.75	/	YZW 4×0.75 (Non-standard)
0.75				
1.1				
1.5				
2.2		YZW 4×1		
3				
4				
5.5				
7.5		YZW 3×2.5+1×1.5		
11/15-2P	YZW 3×6+1×4	2-YZW 3×2.5+1×1.5	YZW 4×1 (Non-standard)	

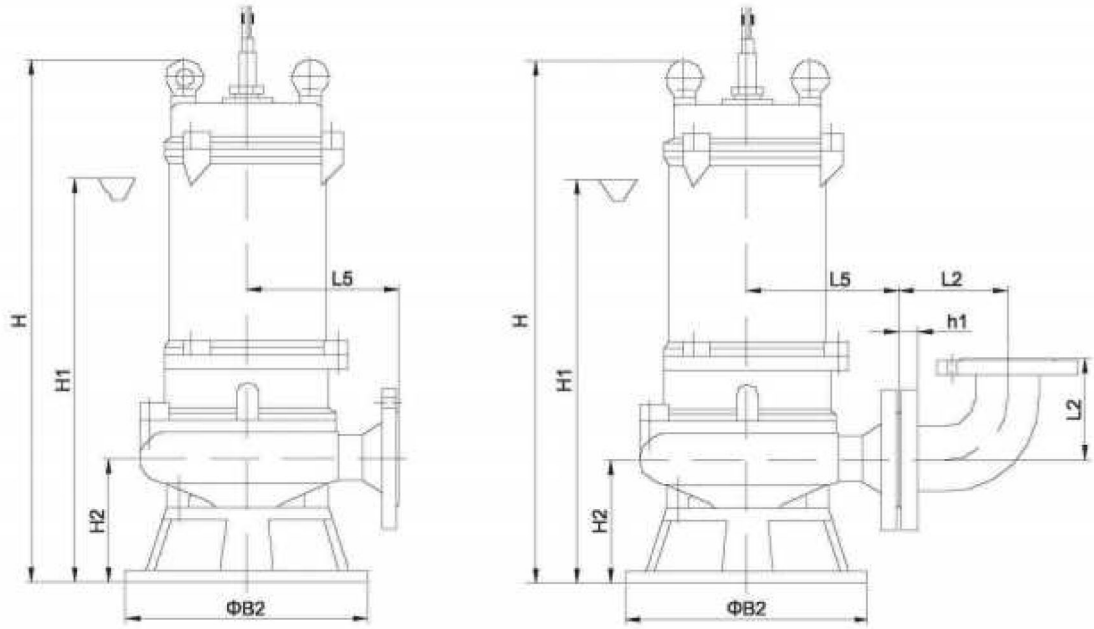


Flange coupling parts dimension table

Model DN	Flange Connection Size			Coupling Base Size																				
	D	D1	N1-Φd1	A	A1	B	B1	J	n2-Φd2	H3	H4	H5	H6	H7	L	L1	L2	M	Φe	L3	L4	L6	L10	Φd×t
50	140	110	4-Φ14	197	168	208	130	120	4-Φ19	250	100	165	14	/	265	215	105	42	Φ14	66	135	90	15	Φ33×3
65	160	130		238	190	252	155	135		265		170	16		280	235	125	50		70	155	85	18	
80	190	150	4-Φ19	255	220	225	153	125		310		190	/		315	265	145	53	Φ15	80	155	100	18	Φ48×3
100	210	170		293	265	258	175	140		350		235			18	365	305	170		55	100	200	110	
150	265	225	8-Φ19	400	285	410	300	210	4-Φ12	485	150	300	22	390	410	260	275	60						

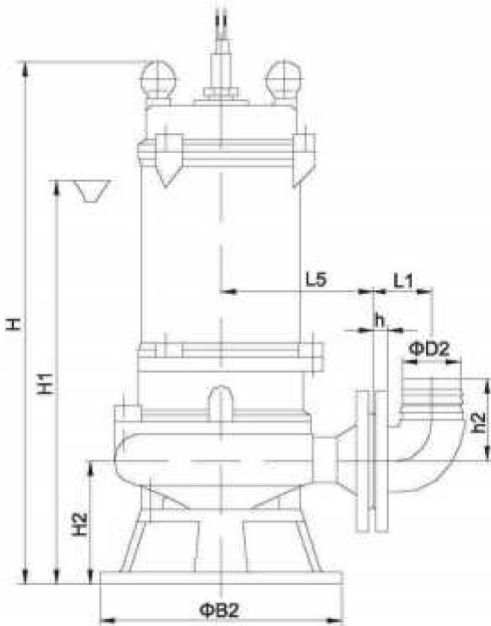
VATTURE PUMP

Pump appearance and mobile installation



Dimension drawing of pump appearance

Hard pipe (double flange elbow/joint) mobile installition

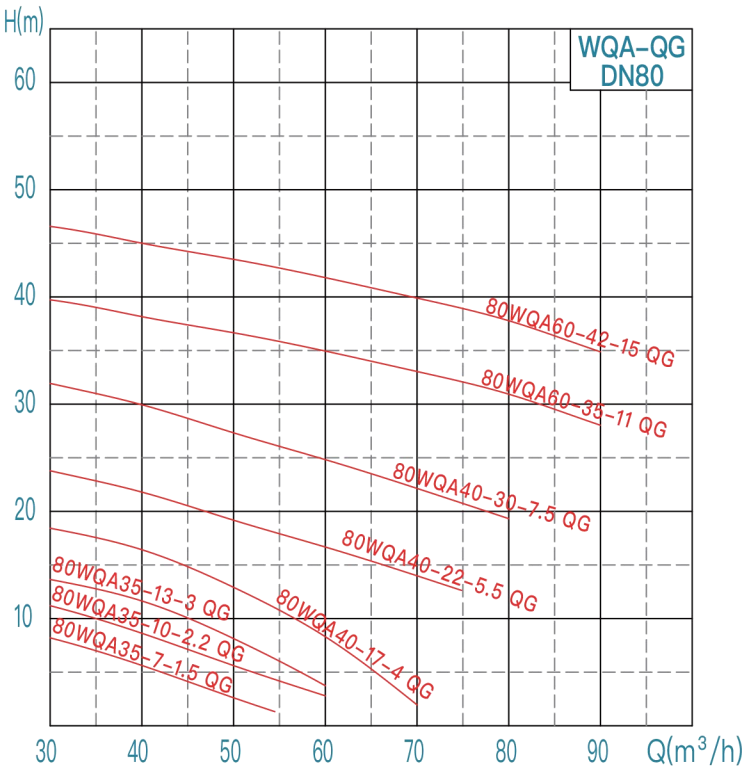
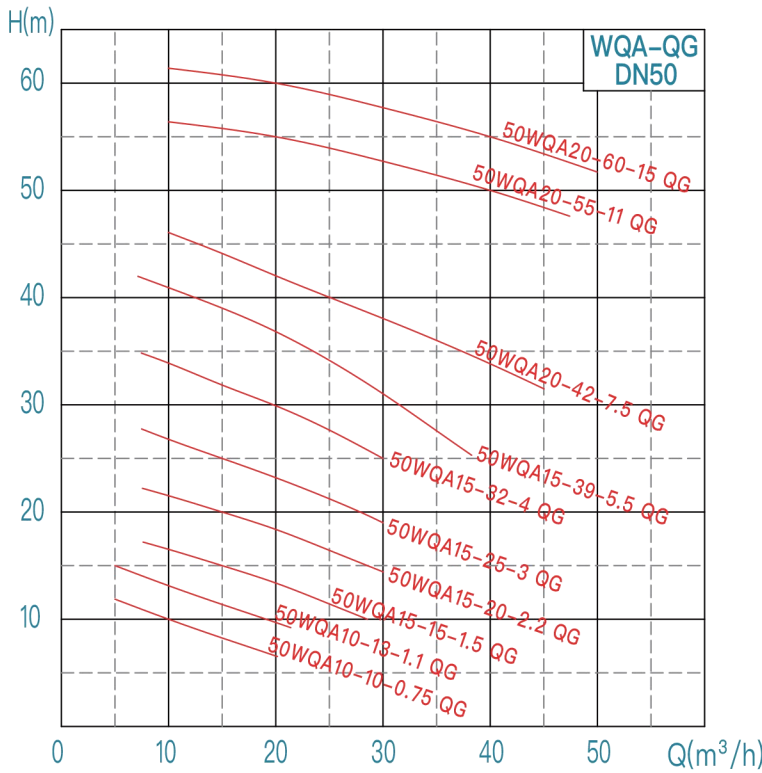


Soft pipe (elbow) mobile installition

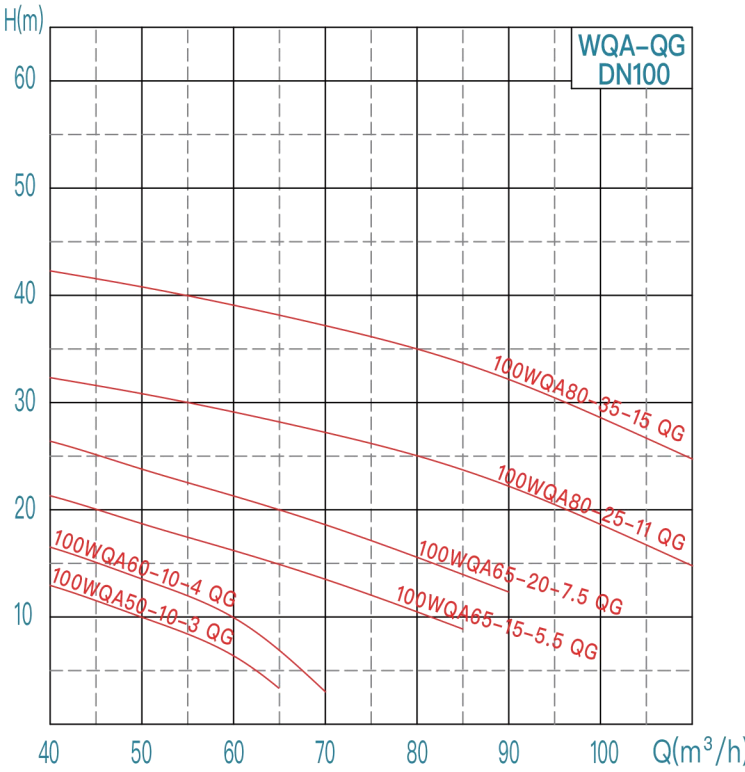
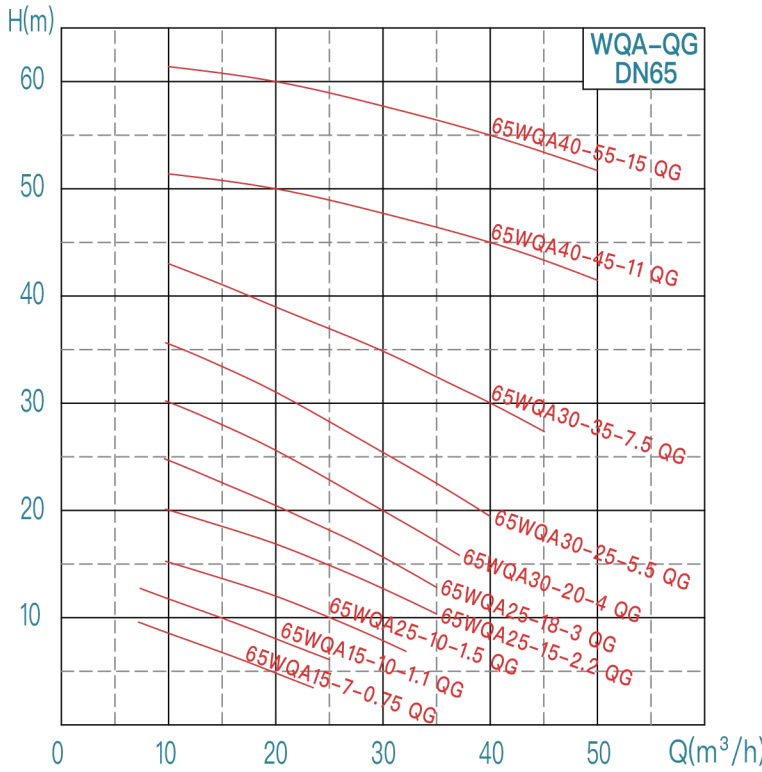
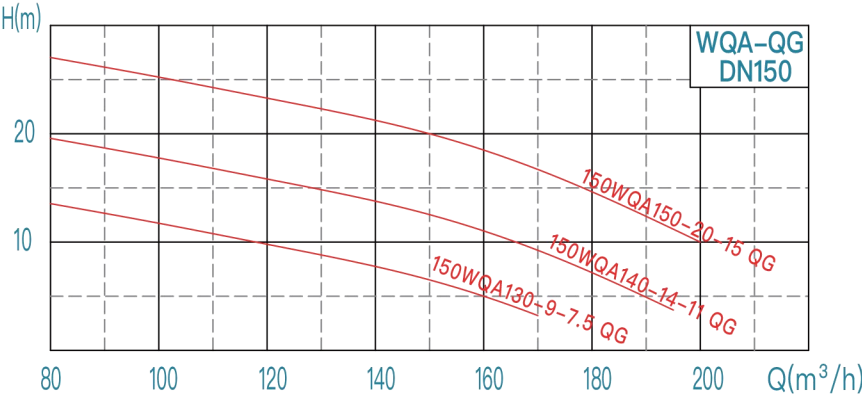
WQA-QG installition dimension table

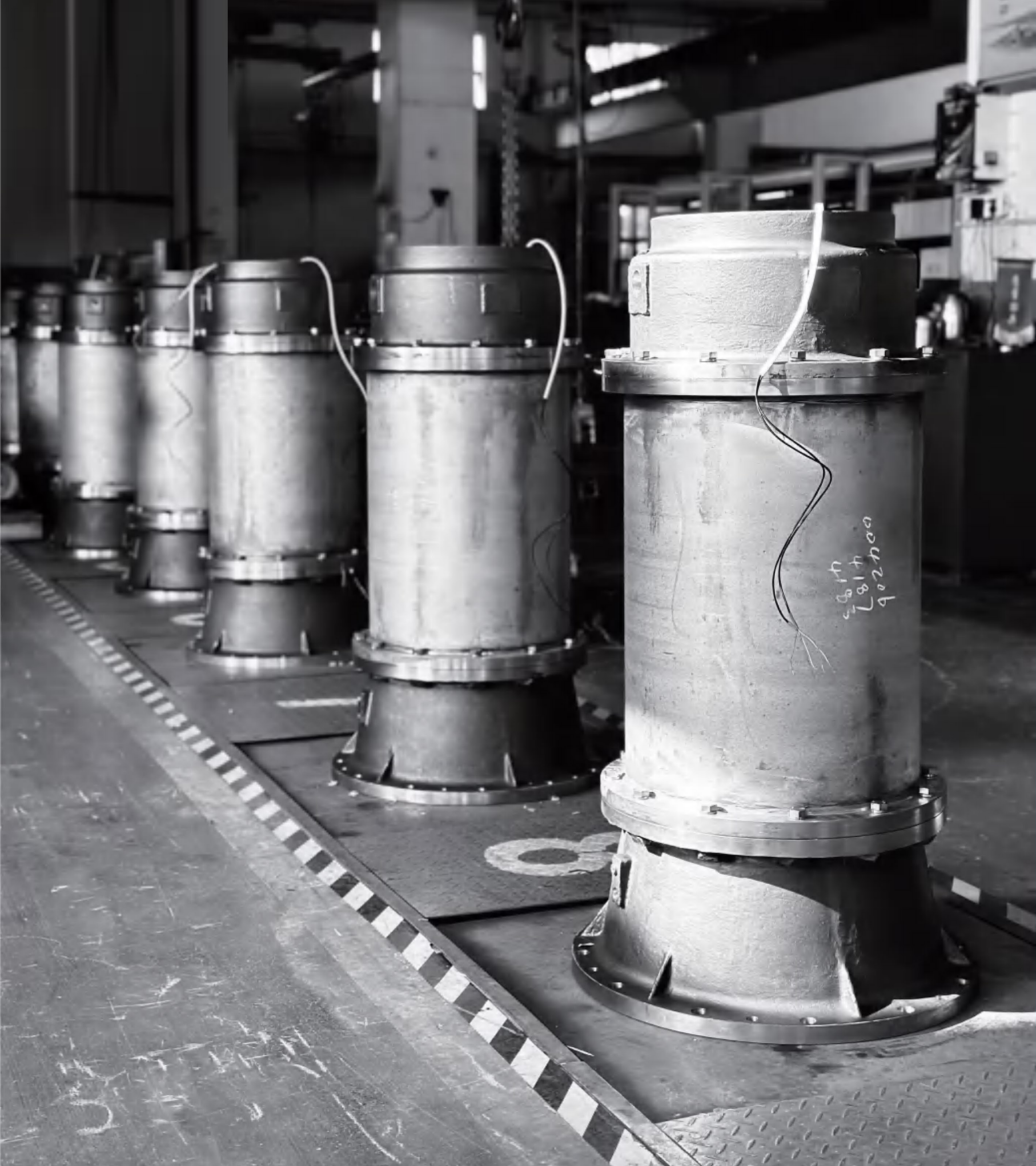
No.	WQA-QG model	Diameter	Power	Rotating speed	Voltage	Passable particle diameter	Appearance dimension table (mm)								Weight			
		mm	kW	r/min	V	mm	L5	B2	H	H1	H2	L8	L9	L7	kg			
1	50WQA10-10-0.75 QG	50	0.75	2950	220/380	15	135	200	460	380	100	82	90	95	26			
2	50WQA10-13-1.1 QG		1.1				145	270	485	400	115	100	105	110	28			
3	50WQA15-15-1.5 QG		1.5						515	425					32			
4	50WQA15-20-2.2 QG		2.2						535	445					37			
5	50WQA15-25-3 QG		3		380		170	270	560	460	115	117	120	130	42			
6	50WQA15-32-4 QG		4						585	485					59			
7	50WQA15-39-5.5 QG		5.5				180	320	650	540	135	140	135	145	70			
8	50WQA20-42-7.5 QG		7.5				180	320	630	520	135	140	135	145	90			
9	50WQA20-55-11 QG		11				190		710	600		130						
10	50WQA20-60-15 QG		15				135	200	740	630	100	82	90	95	138			
11	65WQA15-7-0.75 QG	65	0.75		220/380				485	400					26			
12	65WQA15-10-1.1 QG		1.1						515	425					28			
13	65WQA25-10-1.5 QG		1.5		145		270	535	445	115		100	105	110	32			
14	65WQA25-15-2.2 QG		2.2					560	460	115		117	120	130	37			
15	65WQA25-18-3 QG		3					585	485						42			
16	65WQA30-20-4 QG		4		380		170	270	560	460	115	117	120	130	59			
17	65WQA30-25-5.5 QG		5.5				180	320	585	485					67			
18	65WQA30-35-7.5 QG		7.5						630	520					135	140	135	145
19	65WQA40-45-11 QG		11				190	320	710	600	135	140	145	150	130			
20	65WQA40-55-15 QG		15				170	270	740	630					110	115	120	138
21	80WQA35-7-1.5 QG	80	1.5		220/380				495	405	125	110	115	120	40			
22	80WQA35-10-2.2 QG		2.2		180		270	525	435	44								
23	80WQA35-13-3 QG		3					555	455	49								
24	80WQA40-17-4 QG		4		380		180	270	585	485	130	115	125	135	62			
25	80WQA40-22-5.5 QG		5.5						610	510					73			
26	80WQA40-30-7.5 QG		7.5				200	320	645	530	145	140	140	150	95			
27	80WQA60-35-11 QG		11						720	610					137			
28	80WQA60-42-15 QG		15						750	640					144			
29	100WQA50-10-3 QG	100	3		380		170	270	555	455	125	110	115	120	49			
30	100WQA60-10-4 QG		4						585	485		130	115	125	135	62		
31	100WQA65-15-5.5 QG		5.5				180	270	610	510						73		
32	100WQA65-20-7.5 QG		7.5						200	320	645	530	145	140	140	150	95	
33	100WQA80-25-11 QG		11				720	610			137							
34	100WQA80-35-15 QG		15				750	640			144							
35	150WQA130-9-7.5 QG	150	7.5		50	240	320	670	560	165	145	160	175	128				
36	150WQA140-14-11 QG		11					755	645					142				
37	150WQA150-20-15 QG		15					785	675					150				

WQA-QG performance curve chart (50Hz)



WQA-QG performance curve chart (50Hz)





Ordering, Installation and
After-Sales Service Guidelines ►

VATTURE PUMP

Order description

To make the pump you choose more in line with working site requirements, users are warmly welcome to call our technical department.

Please specify when ordering:

- 1. Pump model, flow, head, speed, power, motor power, medium temperature, medium composition, medium density
- 2. Parts material: pump body, impeller
- 3. Installation method, outlet diameter
- 4. Please specify starting method in the order if there are some requirements.
- 5. The standard water pump cable is 9 meters, specify it if other lengths are required.
- 6. The complete set of supply parts is provided according to the determined installation method.
- 7. Necessary parts, optional parts and spare parts need to be ordered separately.
- 8. Follow the principle of "spread before turning" when connecting the spinal canal and the elbow joint on the discharge pipeline.
- 9. Fill in the selection form.

No.	Pump model:	Configuration: standard Optional (specify in the order)
1	Flow: Q= m³/h	Starting method:
2	Head: H= m	Wiring method:
3	Pump immersion depth:h= m	Medium temperature :Normal °C; Max °C; Min °C
4	Outlet diameter: mm	Corrosion component:
5	Insulation class: F(standard) H(optional)	Oxide concentration(PPM):
6	Motor rated power: kW	Sediment content:
7	Voltage on site: V	Maximum particle diameter: mm
8	Pump speed: r/min	Fiber type and length:
9	Frequency: Hz	Ambient temperature:Normal °C; Mak °C; Min °C

Supply list

Supply list		Installation method				
		Automatic coupling installation(Z)	Fixed base installation (P)	Hard pipe mobile installation(Y)	Soft pipe mobile installation(R)	Single pump
Complete supply parts	Pump (9-meter cable)	✓	✓	✓	✓	✓
	Coupling base	✓				
	Gusset plate	✓				
	Coupling rod	✓				
	Pump base (1pc/set)	✓	✓	✓	✓	✓
Essential parts	Guide rod	✓				
	Anchor bolt	✓	✓			
	Expansion bolt	✓				
	Hard pipe (1 pc/set)		✓	✓		
	Soft pipe (1 pc/set)				✓	
Optional parts	Submersible pump monitoring device	✓	✓	✓	✓	✓
	Stainless steel wire rope and rope clamp for lifting pump	✓	✓	✓	✓	✓
	Spinal tube	✓	✓	✓	✓	✓
	Mating flange	✓	✓	✓		✓
	Flange joint		✓	✓		✓
	Gate valve/butterfly valve	✓	✓	✓	✓	✓
	Check valve	✓	✓	✓	✓	✓
	Electric control cabinet	✓	✓	✓	✓	✓
	Terminal box	✓	✓	✓	✓	✓
	Float switch (liquid level)	✓	✓	✓	✓	✓
Spare parts	Impeller	✓	✓	✓	✓	✓
	Bearing	✓	✓	✓	✓	✓
	Mechanical seal	✓	✓	✓	✓	✓
	Seal ring	✓	✓	✓	✓	✓
	O-ring seal	✓	✓	✓	✓	✓

VATTURE PUMP

Installation instructions

● installation

- 1.Check the pump,motor, and fasteners before installation.
2. The weight of the pipeline should not be added to the pump to avoid deformation, vibration.etc.
3. The anchor bolts must be tightened during installation, and the guide rod and coupling gusset must be fixed.

● Start up

1. The liquid level shall not be lower than the minimum liquid level when starting, the minimum liquid level is shown in the installation diagram▽.
2. Start the motor, check rotation direction. The pump should rotate clockwise looking down from the motor side.
3. (1)For centrifugal type impeller, close the valve and pressure gauge on the outlet pipeline.
(2)For mixed-flow and axial-flow impellers, open the valve according to the pump model.
4. Start the motor,turn on the pressure gauge.As the speed rises,gradually adjust the valve opening extent on the outlet pipe to achieve the required flow.

● Stop

1. First close the outlet valve, close the pressure gauge, and then cut off the motor power supply.
2. In case of long-term shutdown, it is recommended to lift the pump up, clean it up, put it in a dry place, and keep it properly.

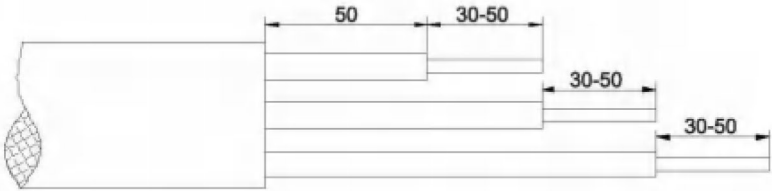
● Maintainance

1. Check the motor current value regularly
 - ①When the ambient temperature is motor rated temperature, the current must not exceed the rated current.
 - ②When the ambient temperature is lower than motor rated temperature, the current value can be slightly increased, please refer to the motor data for details.
 - ③When the current is abnormal, please find out the cause immediately.
2. After long-term operation, the pump should be shut down for inspection due to the wear of mechanical seals, bearings, impellers, seal rings and other parts. And wearing parts like mechanical seals, bearings, O-rings and seal rings should be replaced. The general inspection cycle is normally one year.The service life of the mechanical seal is determined by the on-site working conditions, and the designed service life is 8000 hours.
3. Check the oil chamber regularly. If oil emulsification occurs, replace 32# engine oil in time. Executive standard: GB443-89

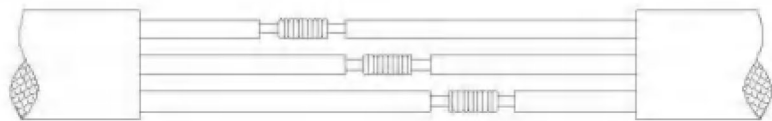
Diving cable connection

When the length of the cable cannot meet users' installation requirements, an external cable is required. The wiring should be operated by a full-time electrician. The cross-sectional area of the cable is determined by the installation length, motor power and starting method. The motor cable and the external cable joints are required to be reliably sealed, insulated, and have certain strength. The wiring process is briefly as follows.

1. Strip the cable on the sewage pump as shown in the figure below, and strip the copper core by 30~35mm long. Wipe it with gauze and copper wire to make it shine. Also strip the copper wire of the external three-core cable by 30~ 35mm,and wipe it clean with gauze..

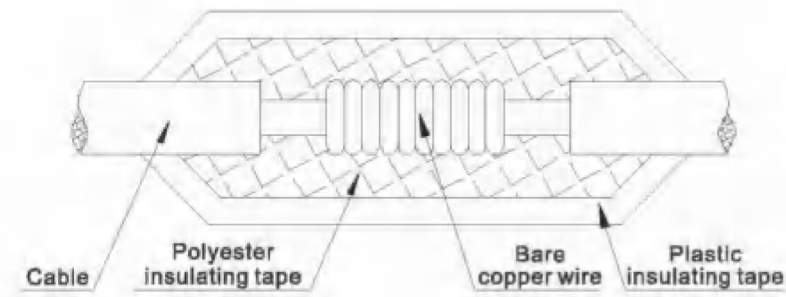


2. As shown in the figure below, insert the stripped copper wire parts of the three-core cable and external cable together, and then use a thin copper wire to bind tightly as shown in the figure, cut off the remaining part, flatten it with scissors, and do not tie your hands. Tie the three wires in the same way.

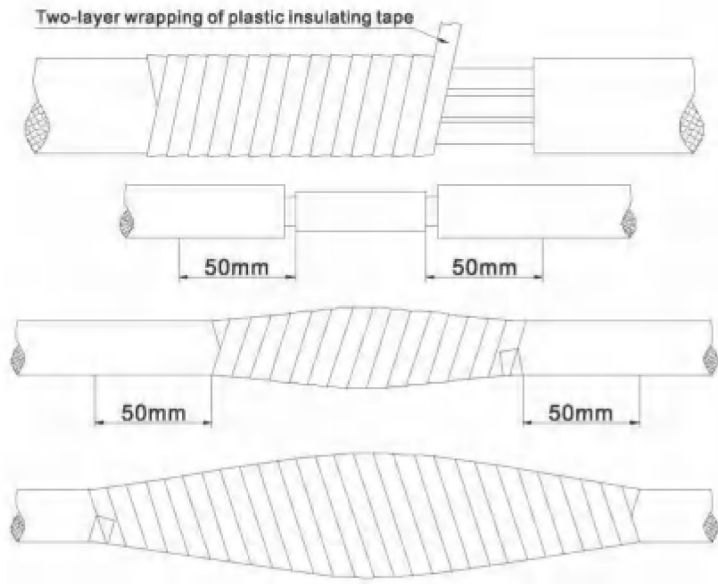


3. Prepare a small iron box or small iron pot that can stick the three wire ends, put solder into the pot and heat it on fire until it melts, and then apply proper amount of soldering oil to the three wire ends,quickly put into the pot and weld it firmly. The surface of the welding head is required to be smooth, free of burrs and false welding. If the welding is not strong or not smooth, it should be re-welded until it meets the requirements.

4. As shown in the figure below, when wrapping with polyester insulating tape, be sure to press half of the first circle (shift wrapping method) for 8~12 layers. After wrapping, wrap two more plastic tape layers for strength protection.



5. As shown in the figure below, wrap the three wires together with plastic tape by two layers. The first layer exceeds the end of each wire insulation layer by more than 50mm, and the second layer exceeds the first layer by more than 50mm. It needs to be tightly wound to exclude air space to the largest extent.



6. After wrapping, take a basin of cold water and completely soak the banded thread in the water. Measure the insulation with a 500V megohmmeter after 12 hours.The insulation should not be less than 50 megohms, otherwise it should be re-wrapped until it meets the requirements.

7. The grounding wire of the submersible electric pump also needs to be wrapped according to the wiring process requirements of the submersible cable.

Note: Customer needs to calculate voltage drop when connecting additional cable.Pay attention to voltage change during operation which should be generally controlled within±5% of the rated voltage.

VATTURE PUMP

Common malfunctions and solutions

Malfunctions	Cause analysis	Solutions
None or insufficient pump water flow	- Motor reverse rotation - The impeller passage or pipeline is blocked - Tubing resistance is too large - The impeller is severely worn - Gas mixed in the medium - Check valve direction is reversed - Head on customer's site is not enough - Coupling leaks	- Adjust two phase power sequence - Remove impurities, it is best to add a thin grille at the water inlet ①Reduce pipeline bends, increase diameter for long pipe ②Check whether the valve is open ③Check whether the impeller is scraped - Replace the impeller - Exhaust gas, increase liquid depth to reach the minimum water level requirement "Δ" - Adjust the direction of the check valve - Check whether customer's test method is correct after excluding the above reasons - Check whether the installation is proper and ensure that the guide rod is vertical
The pump fails to start	- Lack of phase - Impeller sticks - Short circuit of winding joint or cable - Stator winding burnt out - Control cabinet error - Low power supply voltage	- Check the circuit, eliminate problem of lack-phase - Clear impurities - Recover after checking with ohmmeter - Replace the winding or stator, it is better to add a temperature measuring element - Check the control cabinet and remove fault - Solve power supply voltage problems
Large fluctuations in discharge pressure	- The liquid level of suction pool is too low - The suction elbow is not tightly sealed, making air entering the pump - Medium temperature is high	- Control the minimum liquid level of the suction pool - Check the pipe connection and eliminate the cause - Reduce medium temperature. If the temperature cannot be lowered, increase the pump minimum liquid level and replace high-temperature motor
Overloading current	- The head of the selected pump exceeds the actual head. Or the head of the device is greatly reduced, indicating that the pump is running at a large flow rate - The density or viscosity of the medium is too high - Bearing is damaged - There are impurities at the neck ring - Power supply voltage is too low	- Reduce outlet pipe valve opening or the outer diameter of small impeller, or replace a pump that matches the actual working conditions on site - Dilute medium - Replace bearing - Clean up impurities - Solve power supply voltage problems
Heating bearing	- Bearing wears - Bearing grease is too little or too much - Grease is degenerative	- Replace the bearing - The amount of grease added is about 1/3~1/2 of the oil chamber cavity - Change grease

Keep improving
Infinite progress !
精益求精，无限进步