



AT PUMP

Focus on industrial submersible pumps



Fax:+86(0)-0537-6258619
Add:Economic development zone,Yutai,Shandong,China
Web:<http://www.pumpanlitai.com>
Service Hotline:0086+4000327899

Jining Antai Mine Equipment Manufacturing Co., Ltd.

Specialization•Scale•Branding•Internationalization



**KEEP FAITH IN MIND
AND DO OUR BEST**



COMPANY PROFILE

200,000 ^{m²}
Covers an area

50,000 ^{sets}
Annual capacity

300 ⁺
Excellent staff

Established in 2005, Jining Antai Mine Equipment Manufacturing Co.,Ltd.is one of the leading industrial submersible pump manufacturers in China, which is specialized in the research, development, manufacture, marketing and service of submersible pumps. After 18 years of development, Antai Pump currently covers an area of 200,000 square meters, with fixed assets of 600 million Yuan. The company now has an annual production capacity of more than 50,000 sets of mining and industrial explosion-proof sewage submersible pump. Antai Pump has 6 series of pumps as total of 800 models which covers explosion-proof submersible drainage pumps for mine, high-voltage explosion-proof submersible pumps for mine, explosion-proof submersible sewage pumps for industrial, pneumatic desilting pump, pneumatic diaphragm pump, pneumatic submersible pump. Our products are of reasonable price and excellent quality and are widely used in the mining, petrochemical, natural gas engineering, civil engineering, industrial wastewater, sewage treatment, flood control and more.

So far, Antai Pump is the national high-tech enterprise and has obtained 86 invention patents and scientific & technological achievements, in addition, our trademark has been appraised as "China famous trademark". The company has passed the ISO9001, ISO14001, OHSAS18001, CE and other international certifications.

Antai Pump has built long-term strong relationship with many well -know companies, including China Shenhua, China National Coal Group, CNPC, SINOPEC, Sinohydro Group Ltd., YANCON GROUP etc. Zijin Mining, the company has also established stable and good cooperation with business partners from Russia, Australia, Peru, Chile and South Africa etc.

Antai Pump holds the belief that " only use the best material for the most durable pumps", keeping the focus on the customers' requirement. With excellent quality and service, Antai Pump warmly welcomes customers from at home and abroad to build cooperation with us !

CHINA'S INTELLIGENT MANUFACTURING BENCHMARKING ENTERPRISE

OUR ADVANTAGES

1. Our foundry-to control material from the source.
2. First-class R&D team-design independently according to special usage scenarios.
3. Largest testing platform in China.
4. Modern automated processing centers- more accurate and efficient.
5. Sufficient inventory.



Automatic welding



Automatic components machining line



Automatic casting line



Automatic assembly production line



01



02



03



04



05

APPLICATION FIELDS

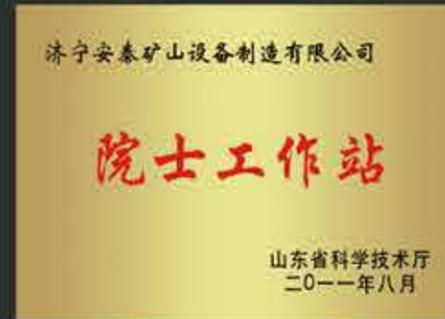


ENTERPRISE QUALIFICATION

Jining Antai Mine Equipment Manufacturing Co., Ltd. adheres to innovation and pursues excellence, and is committed to building the first brand of China's mining pumps, creating the "Antai speed" which is the envy of the industry. With its professional and dedicated enterprise advantages, it has rapidly grown into a leading enterprise in the domestic mining pump industry, among the "China Industrial Influential Enterprise", "China Top 10 Mining Pump Manufacturing Enterprises", "China Industrial Pioneer Demonstration Unit", "Shandong Province SRDI (Specialized; Refinement; Differential; Innovation) Small and Medium Enterprises", "Shandong Province Invisible Champion", "Shandong Province Gazelle Enterprise". The company was also awarded the honorary title of "Enterprise Growth Star" in the 2019 World Manufacturing Congress, leaping into the ranks of global high-growth enterprises with continuous innovation capability and strong driving effect in a new posture.



Famous Trade of China



Academician Workstation



ISO 14001



ISO 45001



ISO 9001



CE



BQS Energy-saving product certification



BQS Energy-saving product certification

Cooperative Unit



Gazelle Enterprise in Shandong



"Specialized Fined Peculiar and Innovative" Small and Medium-Sized Enterprise in Shandong



Little Giant Enterprise



AT PUMP MEMBER DISPLAY



BQ series



FQW series



BQG series



QYF series



BQS series



WQ(B) series



Stainless steel pump



Intelligent pump



BQS series

CONTENTS

01-08	BQ BQ series mining high voltage explosion-proof submersible pump
09-20	BQS BQS series mining explosion-proof submersible drainage pump
21-27	WQB WQ(B) series explosion-proof submersible sewage pump
28-29	BQG / FQW BQG series mining pneumatic diaphragm pump FQW series mining pneumatic submersible pump
30-31	QYF QYF series mining pneumatic desilting pump
32-33	After-sales service

BQ SERIES MINING HIGH VOLTAGE EXPLOSION-PROOF SUBMERSIBLE PUMP

Outstanding features

-  Energy-efficiency
-  Safety and anti-explosion
-  Large flow and high head.
-  Easy installation and operation
-  Advanced and reliable technology





Main application

This series of products are designed and manufactured according to GB3836.1-2010 explosive environment standard.

Part I: Facility general requirements and GB3836.2-2010 explosive environment standard.

Part II: Equipment standard of explosion-proof shell "d" protection, type of anti-explosion is explosion-proof, known as EXdI, which is applicable for mines containing an explosive gas, such as methane or coal dust and so on, where the mine is drained for routine operation, rescue and relief work or mine-recovery.

Working condition

1. Voltage: 6000V or 10000V
2. Medium: PH4-10
3. Water temperature: $\leq 50^{\circ}\text{C}$
4. Solid content: $\leq 10\%$
5. Installation: vertical, horizontal or inclined
6. Submergence depth: $\leq 700\text{m}$. The minimum submerging level should be above than the check valve's output flange.
7. Customized design is available to meet customers' demands according to user's special environment requirements.

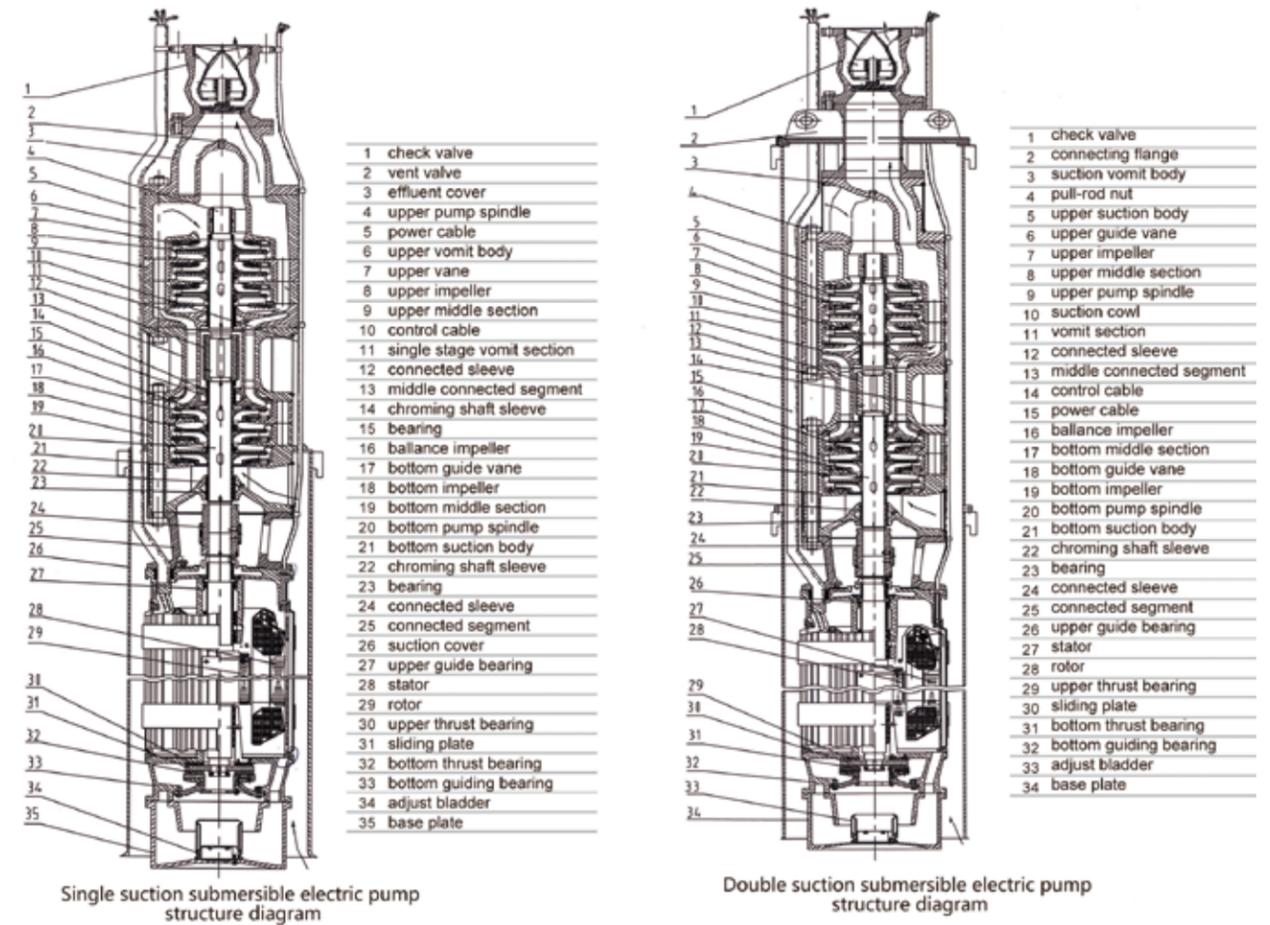
Complete set of supply range

The whole electric pump consists of three parts:

- (1) Main engine: pump, electric motor, pump-motor connecting unit, pump-motor coupling band and fasteners.
- (2) Installation system: suction cover, connecting flange, check valve, lifting pipe, sluice valve, etc.
- (3) Control system: cable, electric control cabinet.

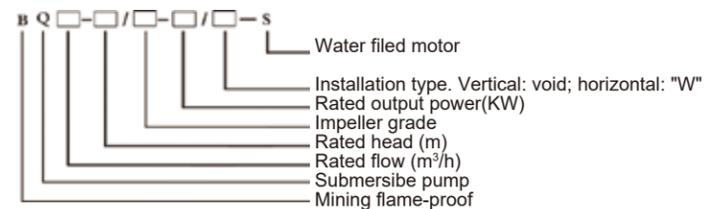
BQ series mining explosion-proof submersible electric pump is also equipped with installation system and automatic control system connected with the mining monitoring internet in order to achieve the ground monitoring.

Structure introduction

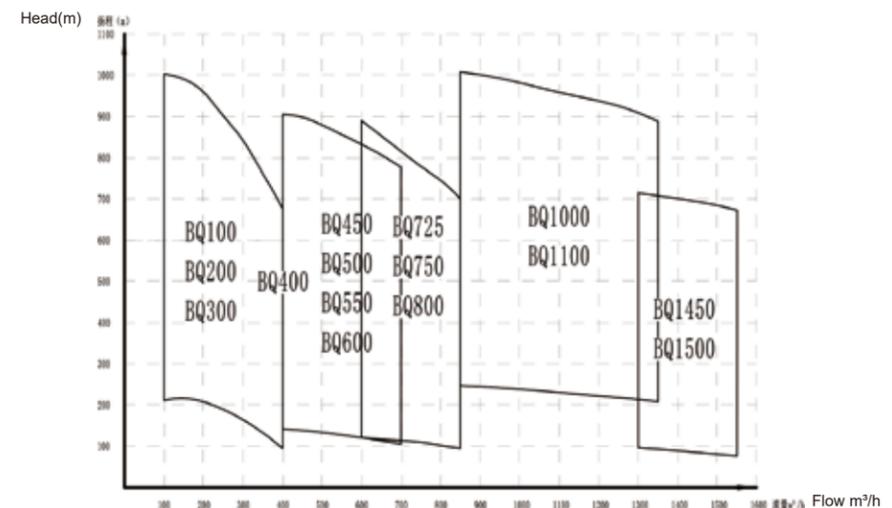
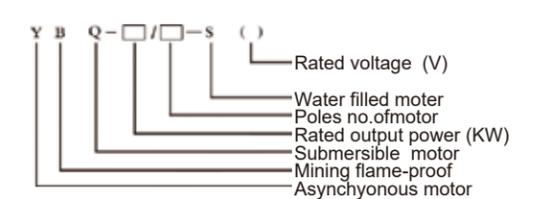


Model and meaning

a) Pump Model



b) Electric Motor Model

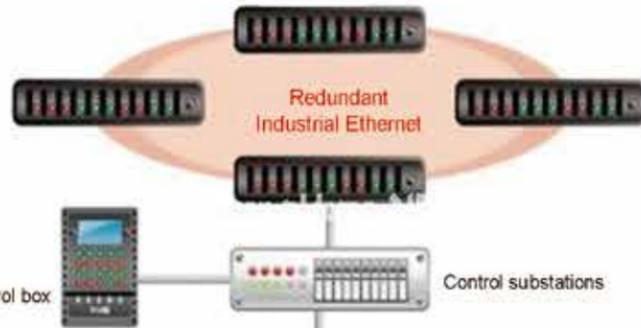




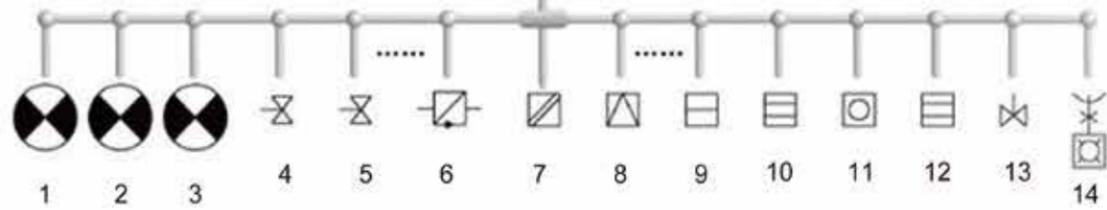
Centralized control system software



Centralized control console



High voltage soft start cabinet



- 1-Pump 2-Pump2 3-Pump 3 4-Solenoid valve 5-Electric gate valve 6-Current transmitter
- 7-Voltage transmitter 8-Temperature sensors 9-Flow sensor 10-Flow rate sensor 11-Start/stop sensors
- 12-Liquid level sensors 13-Pressure sensor 14-Electric bell

System description

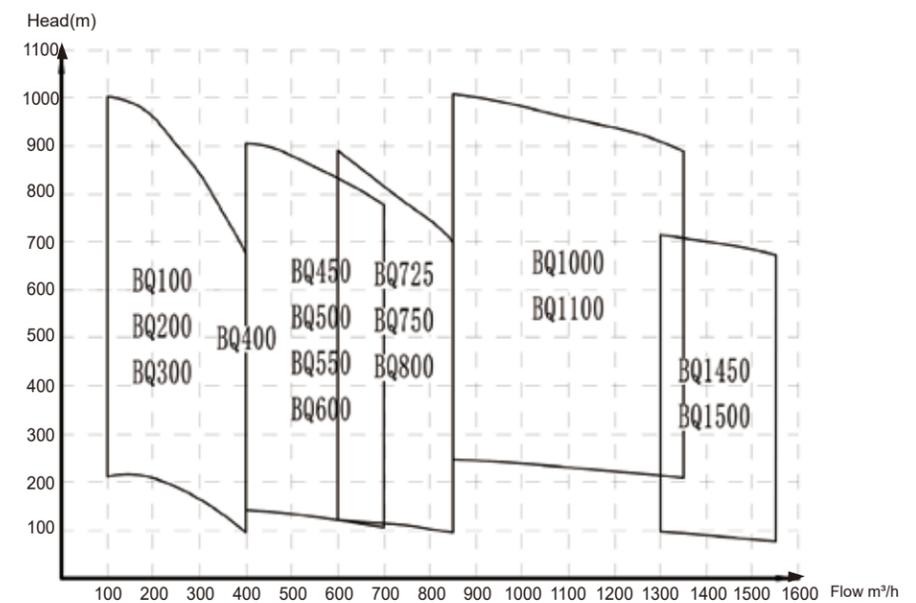
The system is based on industrial control computer or explosion-proof PLC, through all kinds of advanced and reliable sensors, protective devices, electric actuators and so on to monitor the working state of the mine underground drainage system equipment, the automatic control of the underground pump drainage system is realized, the pump drainage system is safe, reliable, energy-saving, efficient, economic and reasonable operation, thus realizing the goal of reducing people and increasing efficiency, safe production. The system can also be used for long-distance monitoring and control of large and medium-sized pumping stations and pumps in factories and mining enterprises.



Model	Flow (m³/h)	Head (m)	Impeller grade	Efficiency of pump (%)	Synchronous speed (r/min)	Rated output power (kW)	Rated voltage (KV)	Outlet diameter (mm)					
BQ100-595/6-355/WS	100	595	6	71.32	1500	355	6/10	100					
BQ100-600/7-400/WS		600	7			400							
BQ100-680/8-400/WS		680	8			400							
BQ100-765/9-450/WS		765	9			450							
BQ100-850/10-500/WS		850	10			500							
BQ100-935/11-560/WS		935	11			560							
BQ100-1020/12-630/WS		1020	12			630							
BQ100-1110/13-710/WS		1110	13			710							
BQ150-450/5-400/WS	150	450	5	72.63	1500	400	6/10	150					
BQ150-510/6-400/WS		510	6			400							
BQ150-600/7-500/WS		600	7			500							
BQ150-680/8-560/WS		680	8			560							
BQ150-765/9-630/WS		765	9			630							
BQ150-850/10-710/WS		850	10			710							
BQ150-935/11-800/WS		935	11			800							
BQ150-1020/12-900/WS		1020	12			900							
BQ200-350/4-400/ WS	200	350	4	74.55	1500	400	6/10	200					
BQ200-425/5-450/ WS		425	5			450							
BQ200-510/6-500/WS		510	6			500							
BQ200-600/7-630/WS		600	7			630							
BQ200-680/8-710/WS		680	8			710							
BQ200-765/9-800/WS		765	9			800							
BQ200-850/10-900/WS		850	10			900							
BQ200-935/11-1000/WS		935	11			1000							
BQ200-1020/12-1000/WS		1020	12			1000							
BQ200-1110/13-1120/WS		1110	13			1120							
BQ280-340/4-400/WS		280	340			4			78.73	1500	400	6/10	250
BQ280-425/5-500/WS			425			5					500		
BQ280-540/6-630/WS	540		6	630									
BQ280-650/7-800/WS	650		7	800									
BQ280-730/8-900/WS	730		8	900									
BQ280-850/9-1000/WS	850		9	1000									
BQ280-920/10-1120/WS	920		10	1120									
BQ280-1035/11-1200/WS	1035		11	1200									
BQ280-1200/12-1400/WS	1200		12	1400									
BQ280-1330/13-1600/WS	1330		13	1600									
BQ280-1445/14-1800/WS	1445		14	1800									
BQ300-270/3-400/WS	300		270	3	78.78	1500	400	6/10			250		
BQ300-360/4-500/WS		360	4	500									
BQ300-450/5-630/WS		450	5	630									
BQ300-510/6-710/WS		510	6	710									
BQ300-595/7-800/WS		595	7	800									
BQ400-255/3-450/WS		400	255	3			78.80		1500	450		6/10	250
BQ400-340/4-630/WS	340		4	630									
BQ400-425/5-800/WS	425		5	800									
BQ400-510/6-900/WS	510		6	900									
BQ400-600/7-1000/WS	600		7	1000									
BQ400-680/8-1120/WS	680		8	1120									
BQ400-765/9-1400/WS	765		9	1400									
BQ400-850/10-1600/WS	850		10	1600									
BQ400-935/11-1800/WS	935		11	1800									
BQ400-1020/12-1900/WS	1020		12	1900									

Model	Flow (m³/h)	Head (m)	Impeller grade	Efficiency of pump (%)	Synchronous speed (r/min)	Rated output power (kW)	Rated voltage (KV)	Outlet diameter (mm)					
BQ450-170/2-355/WS	450	170	2	78.82	1500	355	6/10	250					
BQ450-255/3-500/WS		255	3										
BQ450-350/4-630/WS		350	4										
BQ450-425/5-800/WS		425	5										
BQ450-510/6-1000/WS		510	6										
BQ500-240/3-500/WS	500	240	3	78.82	500	500	6/10	250					
BQ500-280/3-560/WS		280	3										
BQ500-340/4-630/WS		340	4										
BQ500-360/4-710/WS		360	4										
BQ500-440/5-900/WS		440	5										
BQ500-520/6-1000/WS		520	6										
BQ500-560/6-1120/WS		560	6										
BQ500-630/7-1200/WS		630	7										
BQ500-720/8-1400/WS		720	8										
BQ500-810/9-1600/WS		810	9										
BQ500-920/10-1800/WS		920	10										
BQ500-1000/11-2000/WS		1000	11										
BQ500-1080/12-2200/WS	1080	12											
BQ550-170/2-400/WS	550	170	2	78.83	1500	400	6/10	250					
BQ550-255/3-560/WS		255	3										
BQ550-340/4-800/WS		340	4										
BQ550-430/5-1000/WS		430	5										
BQ550-515/6-1200/WS		515	6										
BQ550-600/7-1400/WS	550	600	7	78.83	1500	1200	6/10	250					
BQ550-690/8-1600/WS		690	8										
BQ550-770/9-1800/WS		770	9										
BQ550-855/10-2000/WS		855	10										
BQ550-940/11-2200/WS		940	11										
BQ550-1105/13-2500/WS		1105	13										
BQ550-1275/15-2800/WS		1275	15										
BQ550-1445/17-3150/WS		1445	17										
BQ550-1630/19-3550/WS		1630	19										
BQ550-1710/20-4000/WS		1710	20										
BQ600-170/2-450/WS		600	170			2			78.85	1500	450	6/10	250
BQ600-255/3-710/WS			255			3							
BQ600-340/4-900/WS	340		4										
BQ600-430/5-1120/WS	430		5										
BQ600-515/6-1400/WS	515		6										
BQ600-600/6-1800/WS	600		6										
BQ725-132/3-400/WS	725	132	3	78.85	1500	400	6/10	250					
BQ725-160/4-500/WS		160	4										
BQ725-215/5-630/WS		215	5										
BQ725-265/6-710/WS		265	6										
BQ725-290/7-800/WS		290	7										
BQ725-320/8-900/WS		320	8										
BQ725-360/9-1000/WS		360	9										
BQ725-400/10-1120/WS		400	10										
BQ725-480/12-1200/WS		480	12										
BQ725-520/13-1400/WS		520	13										
BQ725-600/15-1600/WS		600	15										
BQ725-640/16-1800/WS		640	16										
BQ725-690/17-1900/WS		690	17										
BQ725-720/18-2000/WS		720	18										
BQ725-765/19-2200/WS		765	19										
BQ750-840/12-2800/WS	750	840	12	750	1500	2800	6/10	250					
BQ750-910/13-3150/WS		910	13										
BQ750-960/14-3550/WS		960	14										
BQ800-289/8-1000/WS	800	289	8	78.86	1500	1000	6/10	300					
BQ1000-100-400/WS	1000	100	1	79.24	1500	400	6/10	350					

Model	Flow (m³/h)	Head (m)	Impeller grade	Efficiency of pump (%)	Synchronous speed (r/min)	Rated output power (kW)	Rated voltage (KV)	Outlet diameter (mm)
BQ1000-200/2-800/WS	1000	200	2	79.24	1500	800	6/10	350
BQ1000-270/3-1120/WS		270	3					
BQ1000-395/4-1600/WS		395	4					
BQ1000-450/5-1800/WS		450	5					
BQ1000-560/6-2200/WS		560	6					
BQ1000-600/7-2500/WS		600	7					
BQ1000-725/8-2800/WS		725	8					
BQ1000-810/9-3150/WS		810	9					
BQ1000-880/10-3550/WS		880	10					
BQ1000-960/11-4000/WS		960	11					
BQ1000-1050/12-4500/WS		1050	12					
BQ1100-100-450/WS		1100	100			1		
BQ1100-170/2-800/WS	170		2					
BQ1100-255/3-1200/WS	255		3					
BQ1100-340/4-1600/WS	340		4					
BQ1100-430/5-2000/WS	430		5					
BQ1100-510/6-2500/WS	510		6					
BQ1100-595/7-2800/WS	595		7					
BQ1100-680/8-3150/WS	680		8					
BQ1100-780/9-3550/WS	780		9					
BQ1100-850/10-4000/WS	850		10					
BQ1100-935/11-4500/WS	935		11					
BQ1450-85/2-500/WS	1450	85	2	79.52	1500	500	6/10	350
BQ1450-135/3-710/WS		135	3					
BQ1450-160/4-900/WS		160	4					
BQ1450-200/5-1000/WS		200	5					
BQ1450-240/6-1200/WS		240	6					
BQ1450-280/7-1400/WS		280	7					
BQ1450-295/7-1600/WS		295	7					
BQ1450-320/8-1800/WS		320	8					
BQ1450-360/9-2000/WS		360	9					
BQ1450-400/10-2200/WS		400	10					
BQ1500-420/6-2800/WS	1500	420	6	79.64	1500	2800	6/10	350
BQ1500-490/7-3150/WS		490	7					
BQ1500-560/8-3550/WS		560	8					
BQ1500-630/9-4000/WS		630	9					
BQ1500-680/10-4500/WS		680	10					



Model	Rated Power (kw)	Rated voltage (kv)	Rated current (A)	Efficiency (%)	Powey facto (cos) r	Synchronous speed (r/min)	Connection	Starting current ratio	Starting torque ratio	Maximum rorque ratio		
YBQ-355/4S(6000)	355	6	44.8	89	0.85	1500	Y	6.5	1.8	0.8		
YBQ-400/4S(6000)	400		49.6									
YBQ-450/4S(6000)	450		55.3									
YBQ-500/4S(6000)	500		61.5									
YBQ-560/4S(6000)	560		68	90	0.86							
YBQ-630/4S(6000)	630		72.4									
YBQ-710/4S(6000)	710		85.5									
YBQ-800/4S(6000)	800		96.6									
YBQ-900/4S(6000)	900		107.2	91	0.87							
YBQ-1000/4S(6000)	1000		118.8									
YBQ-1120/4S(6000)	1120		133	91.5	0.88							
YBQ-1200/4S(6000)	1200		142									
YBQ-1400/4S(6000)	1400		168.4									
YBQ-1600/4S(6000)	1600		192.5									
YBQ-1800/4S(6000)	1800		216.6	92	0.89							
YBQ-1900/4S(6000)	1900		243.6									
YBQ-2000/4S(6000)	2000		251.7									
YBQ-2200/4S(6000)	2200		266.6									
YBQ-2500/4S(6000)	2500		300.4	91	0.88							
YBQ-2800/4S(6000)	2800		336.5									
YBQ-3150/4S(6000)	3150	374.4										
YBQ-3550/4S(6000)	3550	417.2										
YBQ-4000/4S(6000)	4000	470.1	92	0.89								
YBQ-4500/4S(6000)	4500	528.8										
YBQ-355/4S(10000)	355	10			29	89	0.85	1500	Y	6.5	1.8	0.8
YBQ-400/4S(10000)	400				31.6							
YBQ-450/4S(10000)	450		35.6									
YBQ-500/4S(10000)	500		39.3									
YBQ-560/4S(10000)	560		44.1	90	0.86							
YBQ-630/4S(10000)	630		48.7									
YBQ-710/4S(10000)	710		55.8									
YBQ-800/4S(10000)	800		61.5									
YBQ-900/4S(10000)	900		68.4	91	0.87							
YBQ-1000/4S(10000)	1000		75.6									
YBQ-1120/4S(10000)	1120		83.8	91.5	0.88							
YBQ-1200/4S(10000)	1200		89.5									
YBQ-1400/4S(10000)	1400		103.4									
YBQ-1600/4S10000)	1600		116.7									
YBQ-1800/4S(10000)	1800		130.6	92	0.89							
YBQ-1900/4S(10000)	1900		139.7									
YBQ-2000/4S(10000)	2000		144.5									
YBQ-2200/4S(10000)	2200		153.6									
YBQ-2500/4S(10000)	2500		184.3	91	0.88							
YBQ-2800/4S(10000)	2800		201.9									
YBQ-3150/4S(10000)	3150	224.6										
YBQ-3550/4S(10000)	3550	250.3										
YBQ-4000/4S(10000)	4000	282.1	92	0.89								
YBQ-4500/4S(10000)	4500	317.3										

BQS SERIES MINING EXPLOSION-PROOF SUBMERSIBLE DRAINAGE PUMP



-  No overpower at all head points
-  Independent cascade mechanical seal and double-end faces mechanical seal
-  Smooth operation, high reliability and low energy consumption
-  IPx8/IP68 motor protection grade
-  F/H insulation grade

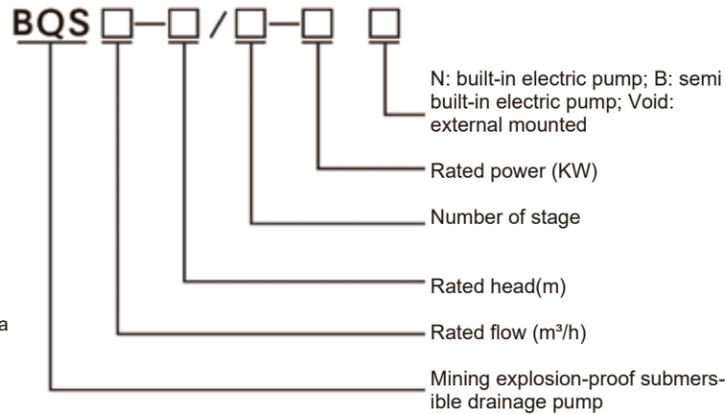
Main application

It is applicable to dangerous sites which contain methane (commonly known as gas) and coal-dust explosion, capable of handling sewerage which contains a mixture of insoluble solid contents such as sediment, coal slime, cinders, fibrous material, etc. It is also applicable for transporting rain water and sewage containing solid particles at constructions, hospitals, residential areas, municipal projects, roads, factory sewage, etc.

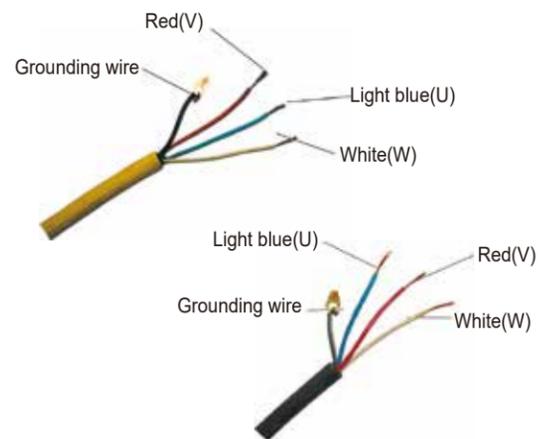
Working condition

1. Voltage: 380V/660V, 660V/1140V, three phase, 50HZ, can be customized.
2. Medium density is generally no more than 40°C, PH5—9, medium weight $\leq 11\text{KN/M}^3$.
3. Based on the impeller center, submerged depth is no more than 20M.
4. Customized design is available for high corrosive fluid.
5. Diameter of solid contents in the fluid should be conform to MT/T671-2005 standard, notify us while ordering for customized design.
6. MT818.5-1999 coal mine with flame-retardant cable, can be customized.

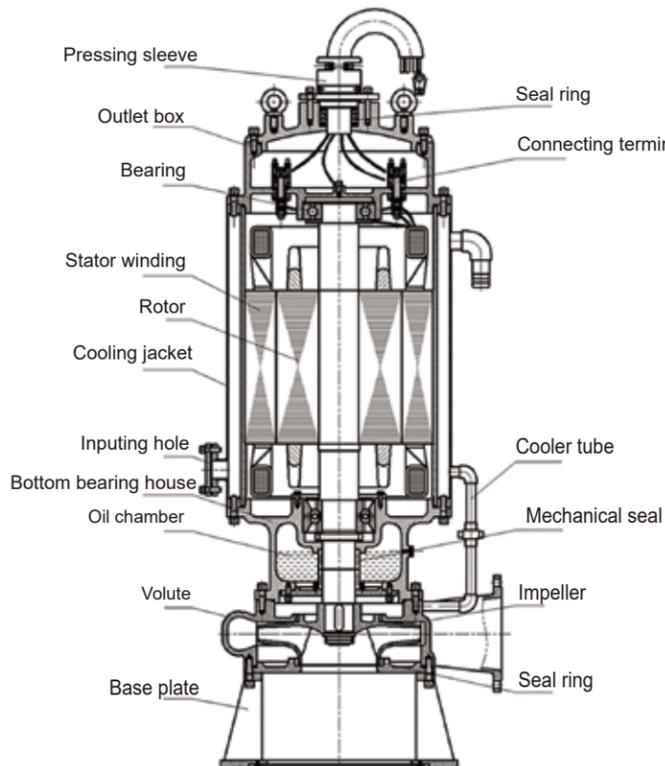
Model and meaning



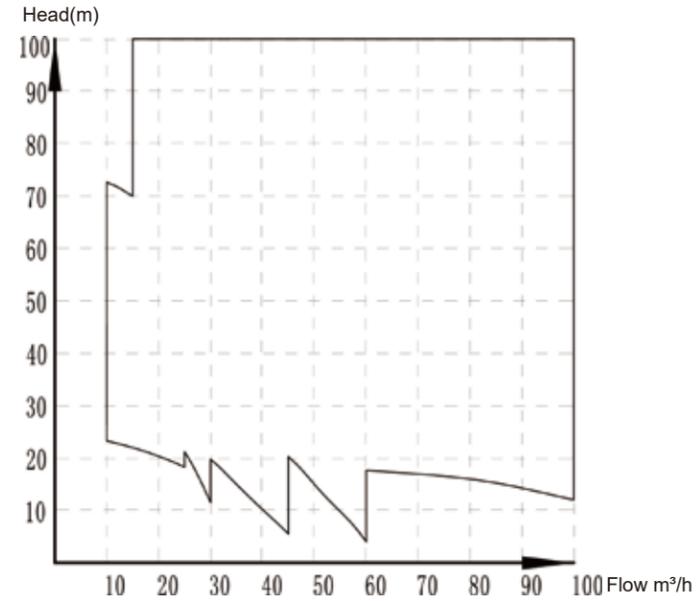
Cable description



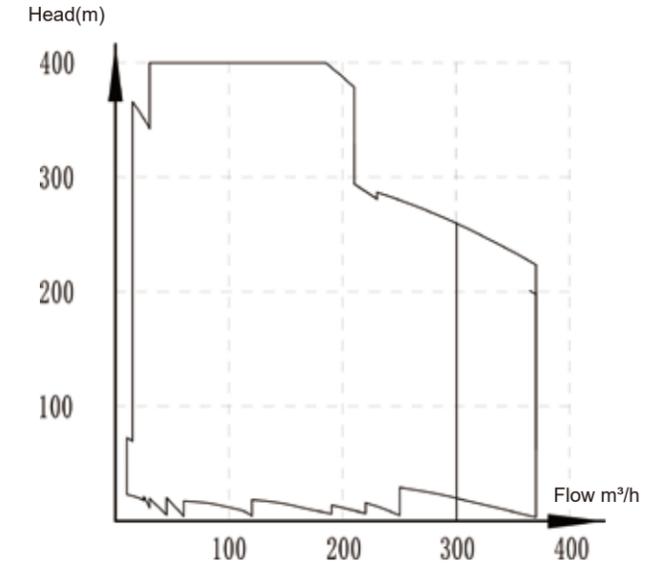
Light blue(U), red(V), white(W), three phase power line.
Grounding wire: black.



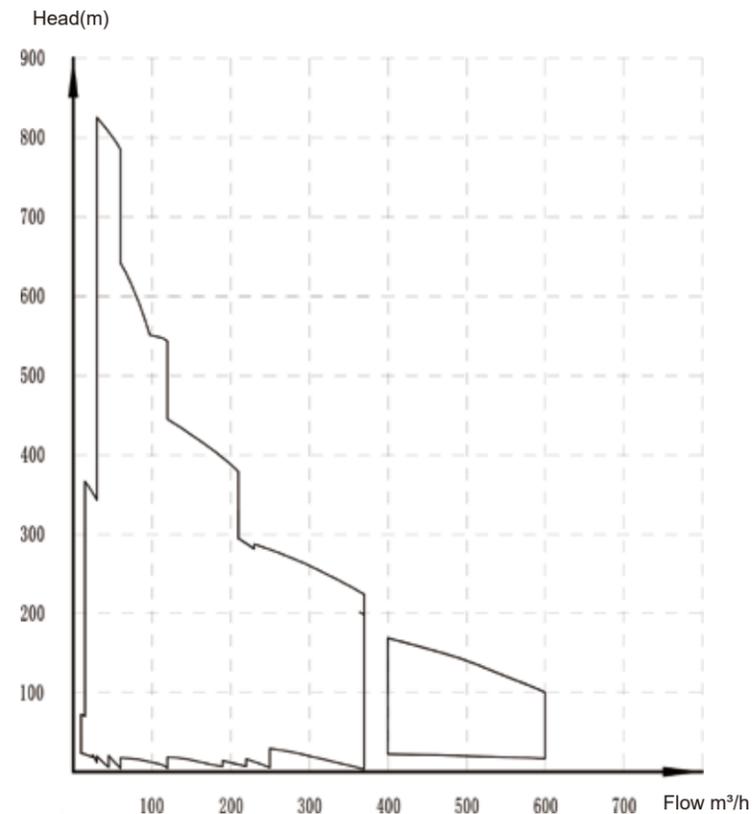
BQS series mining explosion-proof submersible drainage pump (Flow $\leq 100\text{m}^3/\text{h}$, Head $\leq 100\text{m}$)



BQS series mining explosion-proof submersible drainage pump (Flow $\leq 400\text{m}^3/\text{h}$, Head $\leq 400\text{m}$)

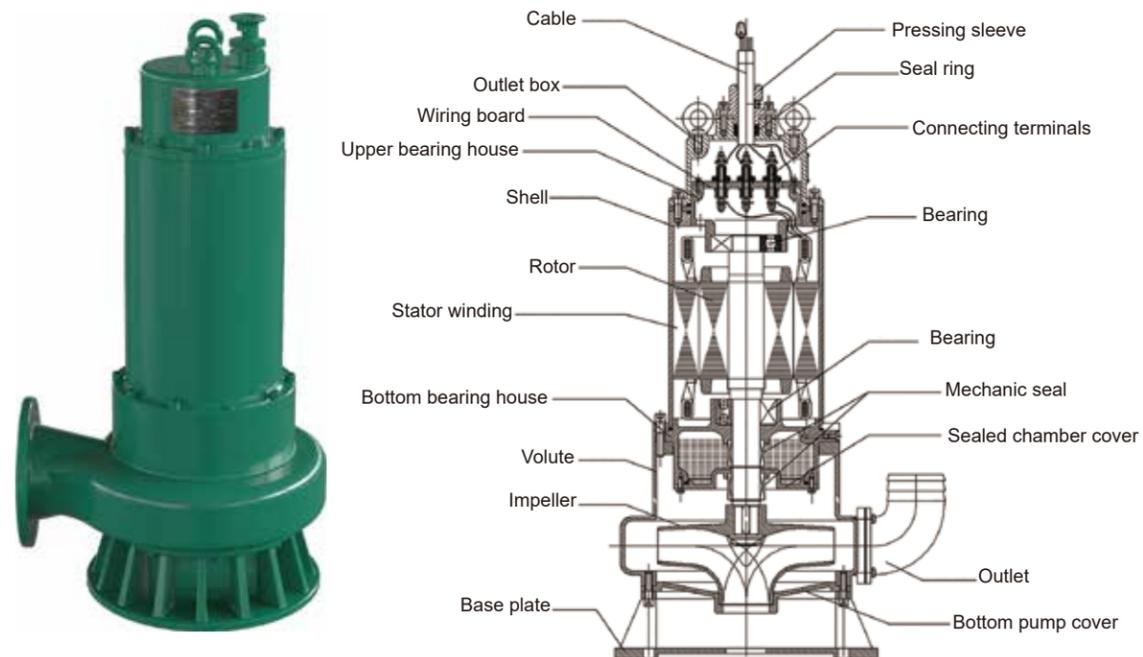


Note: BQS samples + statistical experimental reports are combined to form the maximum range, while not counting BQS pumps with flows above 500 m³/h



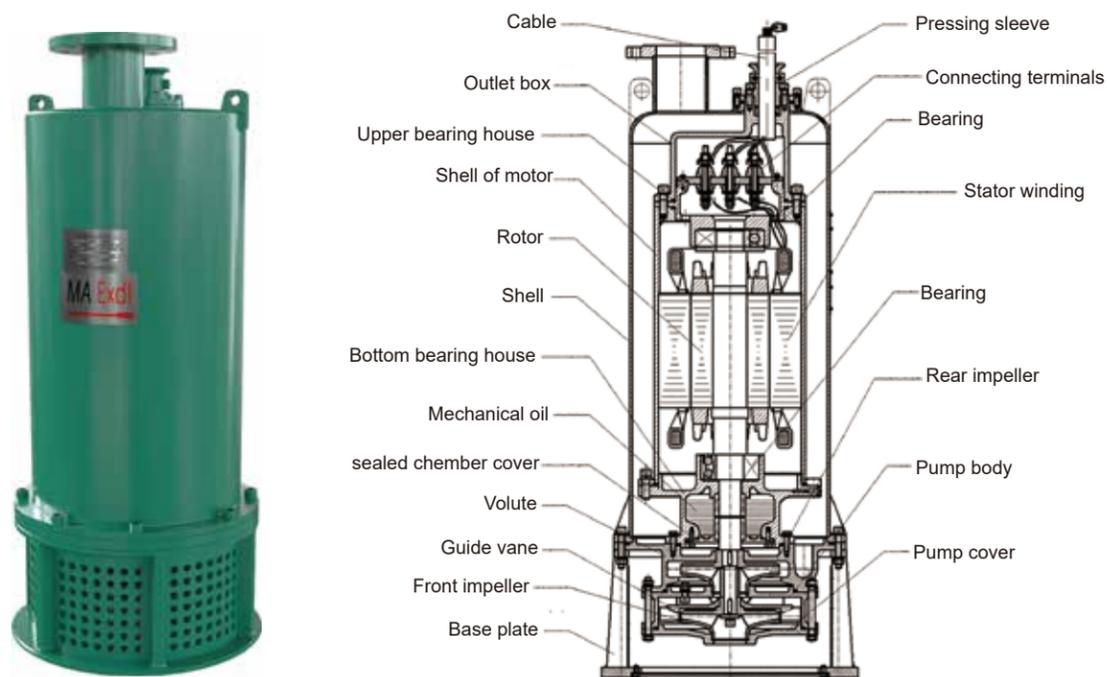
BQS series-external mounted type

External mounted electric pump has the water outlet located at the bottom of pump. Water is discharged directly from the pump body through the water outlet. Generally, the power of this type of single-stage, single suction small pump is below 22kw. Its features are simple structure, portability, strong discharge. It is suitable for sites where water contains coal slurry, gravel and other impurities.



BQS series-built-in type

The overall structure of the built-in electric pump is vertical and downward type with built-in motor structure. The motor housing has an interlayer. When water drains, the water flows from the interlayer and goes out from the top to cool the motor. Even without water, the interlayer outside the motor still has water cooling the motor to ensure that the motor will not be overheated and burnt. There is no need for supervision, greatly reducing the cost of labor. Most of our single-stage and multi-stage pumps utilise the built-in structure.



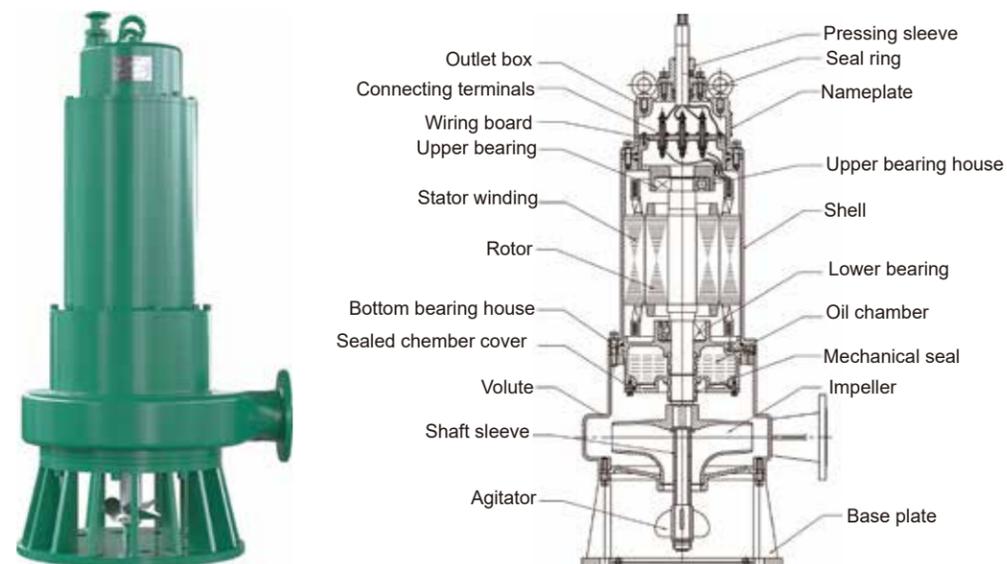
BQS series-stainless steel electric pump

BQS2.2kw-90kw mining explosion-proof sewage desilting submersible pump is specially designed by our company with stainless steel construction to pump corrosive fluids containing sand. The volute casing, impeller and other flow passage parts utilise wear-resistant, corrosion-resistant casted alloy materials with precision. The pump base and shell utilise 304 stainless steel material to greatly improve product service life, which meets the needs of mine drainage.

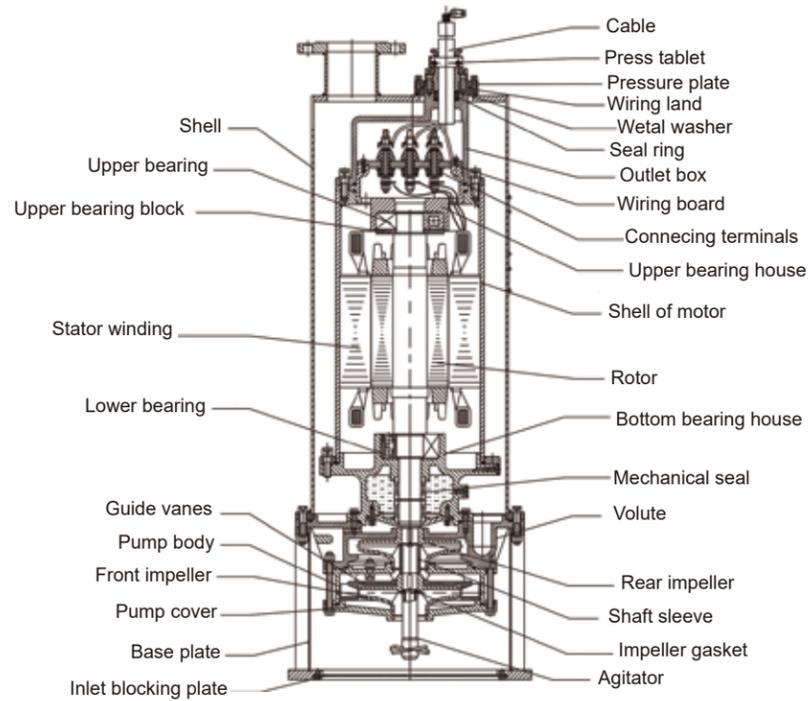


BQS series-agitator type

BQS2.2kw-315kw full head mining explosion-proof sewage desilting agitator pump is jointly designed and developed by our company and JiangSu University, according to MT/T671-2005 standard, which is suitable for coal mines which may have a lot of coal slime. Based on the original mining explosion-proof sewage desilting submersible pump, the product's innovative design equips a stirrer at the bottom of pump. Which effectively discharge the sewage such as coal slurry and slime. This series product utilises two patents from JiangSu University, the impeller and volute casing are designed into double flow channels, outlet width between two impeller blades is more than 30mm, which ensures strong overflow capacity. The impeller blade curve utilises patent technology to ensure that input power will not exceed the motor power (no overload) under any condition. One pump can servemuti-purpose to provide users with great convenience, and can save over 10% of electrical energy. In order to make the pump operate with or without water, we have designed the product with a strong cooling interlayer structure. So this submersible electric pump series can completely meet the needs of underground coal mines. Compared with the similar products in China, it has the features of advanced technology, superior performance, energy saving and longer life.

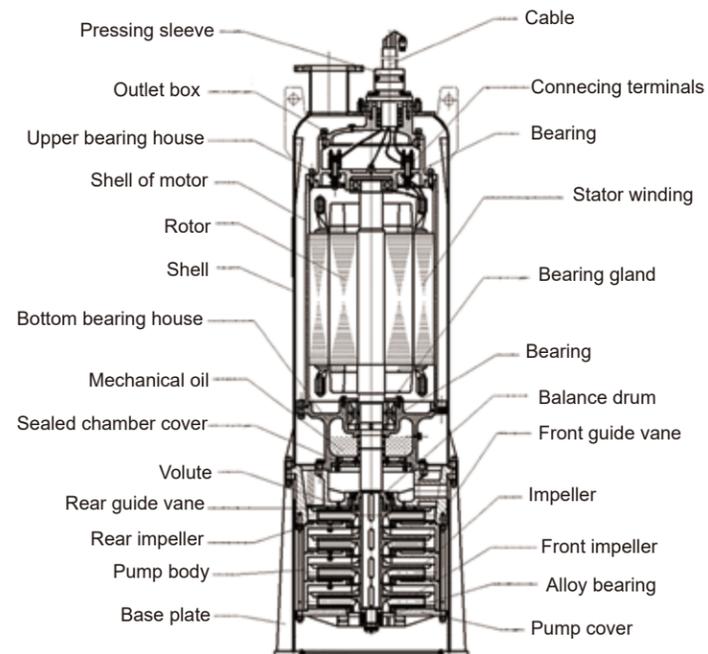


BQS series built-in agitator type



BQS110~315KW large power mining explosion-proof submersible drainage pump

- 1.Utilises built-in motor, downward structure, effectively cooling the motor and providing easy installation and maintenance.
- 2.Optimized motor design makes the motor highly efficient and reliable.
- 3.Utilises an excellent hydraulic model for high efficiency pump hydraulic performance.
- 4.Utilises the core technology for the impeller, guide vane and volute casing parts with no overload design throughout whole pump head range.
- 5.Utilises patent mechanical seal technology to give reliable performance and long service life.
- 6.Utilises high-chromium wear-resistant new materials in impeller, seal ring, guide vane to resist mud and sand abrasion.
7. Impeller utilises a wide flow channel design allowing solid particles to pass through and providing good performance without blocking. This series of products optimises and innovates the hydraulic model, mechanical structure, mechanical seal and other aspects. High sewage disposal capacity, large flow volume and high pump head are proven in many challenging drainage projects.



BQS

BQS series IoT pump
A new generation of digital, information intelligent products



The mobile terminal of Cloud SCADA supports remote monitoring and management of devices through APP, WeChat applet and WeChat official account
Main modules: screen monitoring, real-time data monitoring, fault alarm, and account management

What does Cloud SCADA do?

- 1.Adopt integrated modular design
- 2.Intelligent digitization
- 3.Cloud SCADA ecological intelligence
- 4.Remote device diagnostics
- 5.Video
- 6.Permission Management
- 7.Third party data connection



Main application

It is suitable for normal production drainage and disaster relief drainage in underground coal mine tunnels and mining working faces; it can also be used for drainage in Coal Handling and Preparation Plant, tunneling projects, water conservancy projects and other places. It is suitable for discharging sewage containing solid particles such as suspended coal dust, rock chips, coal particles, sand, gravel and silt.

Working condition

- Working condition
- (1)Rated voltage: 380V/660V or 660/1140V(Allowable Deviation $\pm 5\%$)
 - (2)Rated frequency: 50Hz
 - (3)Submergence depth: $\leq 5\text{m}$
 - (4)Medium temperature: $\leq 40^\circ\text{C}$
 - (5)Environmental temperature: $0-40^\circ\text{C}$
 - (6)Medium PH: 4-10
 - (7)Sediment solids content weight ratio: $\leq 20\%$
 - (8)Soilds passage: Not more than 50% of the minimum size of the flow section of the pump passage
 - (9)Medium density: $\leq 1100\text{Kg/m}^3$
 - (10)NPSHr: $\leq 4.8\text{m}$



Outstanding features

1. Amphibious and multi-use machine

Safety and anti-explosion, explosion-proof structure, submerged operation, good heat dissipation of motor, no overload throughout whole head design which ensures the safe operation. Motor cannot be burned out because of overload. The pump can be used both submerged in water or on land by connecting suction pipes. According to the use of location, flexible choice of use and one machine multi-purpose.

2. Use water to cool the motor. Start-up and operation can be carried out without water

The electric pump adopts built-in motor structure, there is a water interlayer outside the motor.

When the electric pump delivers water, the water flows through the interlayer between the motor and the pump shell to force cool the shell of motor. So the motor cooling effect is good and the overload performance of the motor is improved.

In the case of no water operation, Pump impeller idles with motor, the load is very small and the effective power output of the motor is small, so the heat is small, so it will not cause the motor to overheat and will not damage the motor.

The motor bearings and mechanical seals adopt an effective cooling method, which will not be damaged under water-free operation. In the pump, the rear pump continues to pressurize for drainage, to achieve the effect of doubling the head and high head drainage.

3. A variety of installation methods

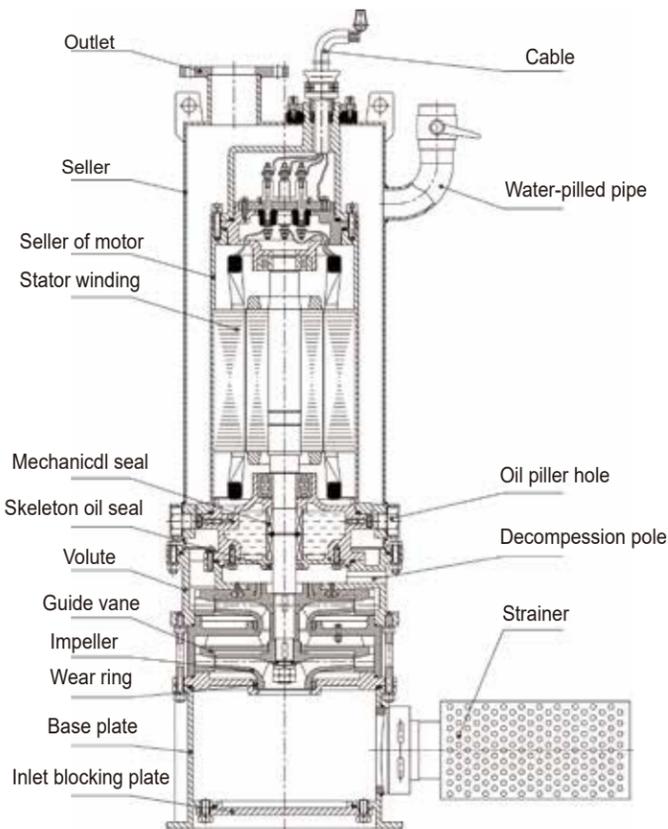
This electric pump can be installed in series to achieve high head drainage. It can adopt submersible installation, land installation, hanging installation, and a variety of tandem installation methods. Electric pump specially designed tandem interface, two or more electric pumps can be installed in tandem. The water conveyed by the front pump is pumped into the rear pump, and the rear pump continues to pressurize to drain the water, to achieve the effect of doubling the head and realizing high head drainage.

Main application

It is suitable for normal production drainage and disaster relief drainage in underground coal mine tunnels and mining working faces; it can also be used for drainage in Coal Handling and Preparation Plant, tunneling projects, water conservancy projects and other places. It is suitable for discharging sewage containing solid particles such as suspended coal dust, rock chips, coal particles, sand, gravel and silt.

Working condition

- (1) Rated voltage: 380V/660V or 660/1140V (Allowable Deviation $\pm 5\%$)
- (2) Rated frequency: 50Hz
- (3) Submergence depth: $\leq 20\text{m}$
- (4) Medium temperature: $\leq 40^\circ\text{C}$
- (5) Environmental temperature: $0\text{-}40^\circ\text{C}$
- (6) Medium PH: 4-10
- (7) Sediment solids content weight ratio: $\leq 20\%$
- (8) Solids passage: Not more than 50% of the minimum size of the flow section of the pump passage
- (9) Medium density: $\leq 1100\text{Kg/m}^3$
- (10) NPSHr: $\leq 4.8\text{m}$



Model	Rated flow (m³/h)	Rated head (m)	Rated power (kw)	Rated voltage (V)	Rated current (A)	Synchronous speed (r/min)	Electric efficiency (%)	Maximum diameter of passed particles (mm)	Outlet diameter (mm)
BQS10-23-1.5	10	23	1.5	380/660 or 660/1140	3.65/2.11 or 2.11/1.22	3000	28.9	6	50
BQS15-20-1.5	15	20					33.9		
BQS10-28-2.2	10	28					29.2		
BQS35-7-2.2	35	7	2.2	380/660 or 660/1140	5.12/2.95 or 2.95/1.70	3000	37.8	15	50
BQS15-22-2.2	15	22					33.9		
BQS25-10-2.2	25	10					37.6		
BQS25-15-3/B	25	15	3	380/660 or 660/1140	6.67/3.84 or 3.84/2.22	3000	38	15	40
BQS15-25-3/B	15	25					31		
BQS35-15-3	35	15					41		
BQS40-10-3	40	10	4	380/660 or 660/1140	8.79/5.07 or 5.07/2.92	3000	41.7	11	80
BQS50-15-4	50	15					43.3		
BQS15-30-4/B	15	30					31.5		
BQS20-28-4/B	20	28	5.5	380/660 or 660/1140	11.65/6.7 or 6.7/3.87	3000	34.7	10	40
BQS22-22-4/B	22	22					37.6		
BQS35-18-4/B	35	18					41.5		
BQS30-30-5.5	30	30	7.5	380/660 or 660/1140	15.7/9.1 or 9.1/5.25	3000	37.9	18	50
BQS70-18-5.5	70	18					45.9		
BQS20-40-5.5/B	20	40					33.5		
BQS40-20-5.5/B	40	20	11	380/660 or 660/1140	23.82/3.79 or 3.79/7.95	3000	43	5	40
BQS25-30-5.5/B	25	30					35.5		
BQS15-55/2-5.5/B	15	55					31.5		
BQS30-36-7.5	30	36	15	380/660 or 660/1140	37.16/21.45 or 21.45/12.38	3000	38.2	18	50
BQS80-16-7.5	80	16					46.9		
BQS75-25-7.5	75	25					46.5		
BQS140-7-7.5	140	7	18.5	380/660 or 660/1140	37.16/21.45 or 21.45/12.38	3000	45.1	30	100
BQS100-12-7.5	100	12					44.3		
BQS20-50-7.5/B	20	50					33.5		
BQS15-70/2-7.5/B	15	70	15	380/660 or 660/1140	36.00/20.78 or 20.78/12.00	1500	32	5	40
BQS10-100/2-7.5/B	10	100					29.5		
BQS50-30-7.5/B	50	30					44		
BQS40-38-7.5/B	40	38	15	380/660 or 660/1140	31.74/18.32 or 18.32/10.58	3000	38.4	10	40
BQS20-68/2-11/N	20	68					35.4		
BQS30-58/2-11/N	30	58					39.4		
BQS40-40-11/N	40	40	15	380/660 or 660/1140	37.16/21.45 or 21.45/12.38	3000	37.7	7	65
BQS150-15-11/N	150	15					46.1		
BQS100-20-11/N	100	20					48.2		
BQS80-20-11/N	80	20	15	380/660 or 660/1140	37.16/21.45 or 21.45/12.38	3000	43.5	30	100
BQS50-38-11/N	50	38					42.1		
BQS80-20-11	80	20					43.5		
BQS100-22-15	100	22	15	380/660 or 660/1140	36.00/20.78 or 20.78/12.00	1500	22.07/12.74 /7.36	30	100
BQS20-80/2-15/N	20	80					29.90/17.26/9.97		
BQS40-50-15/N	40	50					47.3		
BQS60-35-15/N	60	35	18.5	380/660 or 660/1140	37.16/21.45 or 21.45/12.38	3000	35.5	10	65
BQS80-25-15/N	80	25					38.2		
BQS32-67/2-15/N	32	67					43.5		
BQS150-20-15/N	150	20	18.5	380/660 or 660/1140	36.00/20.78 or 20.78/12.00	1500	44.0	30	100
BQS20-100/2-18.5/N	20	100					39.2		
BQS30-80/2-18.5/N	30	80					49.1		
BQS70-35-18.5/N	70	35	18.5	380/660 or 660/1140	36.00/20.78 or 20.78/12.00	1500	33.9	6	65
BQS80-30-18.5/N	80	30					38.6		
BQS60-40-18.5/N	60	40					47.0		
BQS100-30-18.5	100	30	18.5	380/660 or 660/1140	36.00/20.78 or 20.78/12.00	1500	47.3	15	100
BQS200-15-18.5	200	15					44.2		
BQS160-20-18.5	160	20					48.6		
							52.54	30	
							51.46		

Model	Rated flow (m³/h)	Rated head (m)	Rated power (kw)	Rated voltage (V)	Rated current (A)	Synchronous speed (r/min)	Electric efficiency (%)	Maximum diameter of passed particles (mm)	Outlet diameter (mm)
BQS30-105/2-22/N	30	105	22	380/660 or 660/1140	44.94/25.95 or 25.95/14.95	3000	38.3	10	65
BQS40-80/2-22/N	40	80					39.9		
BQS80-40-22/N	80	40					48.1		
BQS60-60-22/N	60	60					42.5		
BQS100-35-22	100	35			1500	42.3/24.42 or 24.42/14.1	49.2	31	100
BQS165-30-22	165	30					50.2	30	
BQS200-20-22	200	20					53.8	30	
BQS50-100/2-30/N	50	100					42.4	100	
BQS60-80-30/N	60	80	41						
BQS80-60-30/N	80	60	45.1						
BQS120-50-30/N	120	50	50.3	3000	11	150			
BQS200-22-30/N	200	22	50.7		15				
BQS30-130/2-30/N	30	130	38.5		10		100		
BQS25-150/2-30/N	25	150	35.7		10				
BQS70-100/2-37/N	70	100	45.91	100					
BQS30-150/2-37/N	30	150	38.65		3000	69.35/40.04 or 40.04/23.12		10	150
BQS50-120/2-37/N	50	120	37						
BQS40-130/2-37/N	40	130	38.5						
BQS80-80-37/N	80	80	43						
BQS100-80-37/N	100	80	45.7				30		
BQS350-25-37	350	25	44.3				10		
BQS150-50-37/N	150	50	53.3				12		
BQS200-30-37/N	200	30	56	200					
BQS300-20-37/N	300	20	47						
BQS600-10-37	600	10	37.2		100				
BQS30-170/2-45/N	30	170	40.5						
BQS50-150/2-45/N	50	150	54.5	18					
BQS110-90-45/N	110	90	54.3						
BQS120-70-45/N	120	70	47.4	10					
BQS85-100-45/N	85	100	51						
BQS130-60-45/N	130	60	53.89	18					
BQS170-50-45/N	170	50	53.4						
BQS200-45-45/N	200	45	53.9						
BQS300-30-45/N	300	30	55.4		200				
BQS600-15-45	600	15	56.0	30					
BQS900-10-45	900	10	100						
BQS90-120/2-55/N	90	120		43.8	3000	107.3/61.95 or 61.95/35.77	11	150	
BQS120-80-55/N	120	80		46.7					
BQS150-70-55/N	150	70		50.4					
BQS200-60-55/N	200	60		53.8					
BQS220-50-55/N	220	50		54.1					
BQS240-30-55/N	240	30		53.6					
BQS25-320/6-55/N	25	320		38.06					65
BQS50-175/2-55/N	50	175	41.43						
BQS70-136/2-55/N	70	136	44.55						
BQS400-25-55	400	25	57.5	200					
BQS600-20-55	600	20	56.0						
BQS800-15-55	800	15	57.0						
BQS100-100-75/N	100	100	144.67/83.53/48.23		3000	44.8	10	100	
BQS150-90-75/N	150	90	144.67/83.53 or 83.53/48.23	1500	49.33	11	150		
BQS200-70-75/N	200	70			54.1	19	200		
BQS300-50-75/N	300	50			57.1	11	100		
BQS50-210/2-75/N	50	210			41.67	1500	43.3	19	200
BQS70-150/2-75/N	70	150	57.9						
BQS400-30-75	400	30	58.9						
BQS500-20-75	500	20	55.5						
BQS300-40-75	300	40	137.5/79.39 or 79.39/45.84	1500	56.0	30	250		
BQS800-20-75	800	20			60.0	30	250		
BQS1100-15-75	1100	15			60.0	30	250		

Model	Rated flow (m³/h)	Rated head (m)	Rated power (kw)	Rated voltage (V)	Rated current (A)	Synchronous speed (r/min)	Electric efficiency (%)	Maximum diameter of passed particles (mm)	Outlet diameter (mm)				
BQS50-240/2-90/N	50	240	90	380/660 or 660/1140	174.5/100.8 or 100.8/58.20	3000	41.83	10	100				
BQS80-190/2-90/N	80	190					44.8						
BQS100-150/2-90/N	100	150					45.5						
BQS190-90-90/N	190	90					52.06						
BQS220-70-90/N	220	70					55.1	150					
BQS300-50-90/N	300	50					56.4		13				
BQS500-35-90	500	35					57.5		19	200			
BQS280-65-90	280	65					51		1500	57.6	30	300	
BQS900-20-90	900	20	42.79	3000	212.2/122.52 or 122.52/70.74	10	100						
BQS60-260/3-110/N	60	260	45.33										
BQS90-200/3-110/N	90	200	46.2										
BQS100-180/2-110/N	100	180	52.3										
BQS150-120/2-110/N	150	120	50.93					150					
BQS200-110-110/N	200	110	57.4						11				
BQS300-80-110/N	300	80	55.1					1500	201.0/116.51 or 116.51/67.26	16	200		
BQS400-60-110	400	60	61.15							19			
BQS600-40-110	600	40	61.0	30	300								
BQS1500-15-110	1500	15	132	380/660 or 660/1140	253.23/146.21 or 146.21/84.41	3000	10	150					
BQS60-300/4-132/N	60	300							43.74				
BQS110-200/2-132/N	110	200							46.55				
BQS150-150/2-132/N	150	150							51.22				
BQS240-120/2-132/N	240	120							56.41				
BQS300-90-132/N	300	90							57.73				
BQS700-40-132	700	40							61.9	1500	240.4/138.8 or 138.8/80.14	16	200
BQS800-35-132	800	35							62.6			250	
BQS60-380/4-160/N	60	380	160	380/660 or 660/1140	305.25/176.24 or 176.24/101.76	3000	10	150					
BQS100-245/3-160/N	100	245							43.45				
BQS150-210/3-160/N	150	210							47.26				
BQS350-90-160/N	350	90							46.2				
BQS190-180/3-160/N	190	180							56.8				
BQS300-100-160/N	300	100							55.76				
BQS1200-25-160	1200	25							57.35				
BQS600-50-160	600	50							60.5	1500	287.8/166.18 or 166.18/95.94	19	300
BQS500-60-160	500	60	61.1	16	200								
BQS1000-30-160	1000	30	58.5	19	300								
BQS100-280/4-185/N	100	280	185	380/660 or 660/1140	332.76/192.12 or 192.12/110.92	1500	10	100					
BQS160-200/3-185/N	160	200							63.6				
BQS240-175/3-185/N	240	175							43.8				
BQS600-60-185	600	60							48.06				
BQS800-50-185	800	50							51.24				
BQS900-40-185	900	40							61.1	1500	352.95/203.78 or 203.78/117.66	16	200
BQS80-350/4-185/N	80	350							62.6			19	250
BQS80-400/4-200/N	80	400							63.1	3000	352.95/203.78 or 203.78/117.66	19	300
BQS100-320/4-200/N	100	320	45.31	10	100								
BQS200-200/4-200/N	200	200	43.8	200	380/660 or 660/1140	359.4/207.5 or 207.5/119.80	1500	150					
BQS320-120/2-200/N	320	120	50.62										
BQS150-250/4-200/N	150	250	53.37										
BQS1100-35-200	1100	35	47.97										
BQS1200-30-200	1200	30	64						1500	419.72/242.33/139.91	19	300	
BQS1500-25-200	1500	25	62.3								11	150	
BQS80-450/4-220/N	80	450	61.2						220	380/660 or 660/1140	395.34/228.25 or 228.25/131.78	1500	150
BQS150-270/4-220/N	150	270	48.49										
BQS220-220/4-220/N	220	220	44.69										
BQS260-180/3-220/N	260	180	48.31										
BQS200-240/4-220/N	200	240	51.26										
BQS320-150/3-220/N	320	150	52.33										
BQS150-300/5-250/N	150	300	50.28										
BQS230-250/4-250/N	230	250	55.37	1500	466.64/268.67 or 268.67/155.54	19	150						
BQS300-185/3-250/N	300	185	48.49										
BQS400-150/3-250/N	400	150	51.44										
			53.31					19	200				
			56.97	19	200								

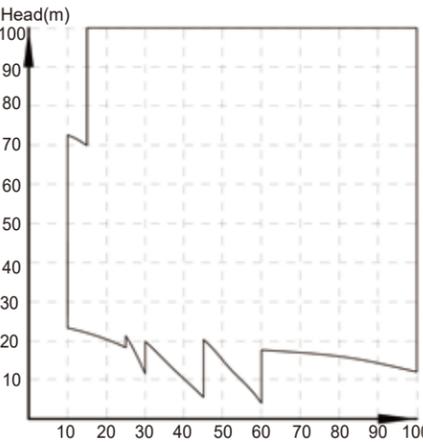
WQ(B) SERIES MINING EXPLOSION-PROOF SUBMERSIBLE DRAINAGE PUMP

Model	Rated flow (m³/h)	Rated head (m)	Rated power (kw)	Rated voltage (V)	Rated current (A)	Synchronous speed (r/min)	Electric efficiency (%)	Maximum diameter of passed particles (mm)	Outlet diameter (mm)							
BQS500-100-250/N	500	100	250	380/660 or 660/1140	466.64/268.67 or 268.67/155.54	1500	60	25	200							
BQS630-80-250/N	630	80					61.5									
BQS800-70-250/N	800	70					62.5									
BQS1000-50-250/N	1000	50					65									
BQS1500-40-250/N	1500	40					67									
BQS50-600/6-250/N	50	600			476.95/274.61 or 274.61/158.98	3000	42	10	100							
BQS63-540/6-250/N	63	540					43.5									
BQS80-480/4-250/N	80	480					44.8									
BQS100-400/4-250/N	100	400					46.5									
BQS50-700/6-280/N	50	700					42.39									
BQS63-630/6-280/N	63	630	534.18/307.56 or 307.56/178.06	3000	43.54	10	100									
BQS80-500/4-280/N	80	500			44.69											
BQS100-450/4-280/N	100	450			46.2											
BQS150-350/5-280/N	150	350			48.13			522.63/300.91 or 300.91/174.21	1500	50.37	10	150				
BQS200-300/5-280/N	200	300			52.15											
BQS250-250/5-280/N	250	250			55.46											
BQS320-180/4-280/N	320	180			56.79											
BQS400-160/3-280/N	400	160			60.9					587.96/338.52 or 338.52/195.98			1500	61.5	19	200
BQS500-120/3-280/N	500	120			62.5											
BQS630-90-280/N	630	90			65									600.96/346.01 or 346.01/200.32		
BQS800-80-280/N	800	80	46													
BQS1000-58-280/N	1000	58	42.4													
BQS1500-45-280/N	1500	45	46.7	380/660 or 660/1140	1500	48.3	10			150						
BQS80-600/6-315/N	80	600	50.4													
BQS50-800/6-315/N	50	800	52.5													
BQS100-550/6-315/N	100	550	56.1													
BQS150-425/6-315/N	150	425	55.8			587.96/338.52 or 338.52/195.98		1500	57.8		19	200				
BQS180-350/6-315/N	180	350	60.9													
BQS300-260/4-315/N	300	260	64						600.96/346.01 or 346.01/200.32				3000	64.2	25	250
BQS350-200/4-315/N	350	200	66.3													
BQS400-180/3-315/N	400	180	68.5											380/660 or 660/1140		
BQS500-135/3-315/N	500	135	60.9													
BQS700-100-315/N	700	100	57.8	587.96/338.52 or 338.52/195.98	1500	57.8	25	250								
BQS800-90-315/N	800	90	64													
BQS1000-70-315/N	1000	70	64.2			600.96/346.01 or 346.01/200.32			3000	66.3	30	300				
BQS1500-50-315/N	1500	50	68.5							380/660 or 660/1140			1500	66.3	30	300
BQS2000-35-315/N	2000	35	68.5													

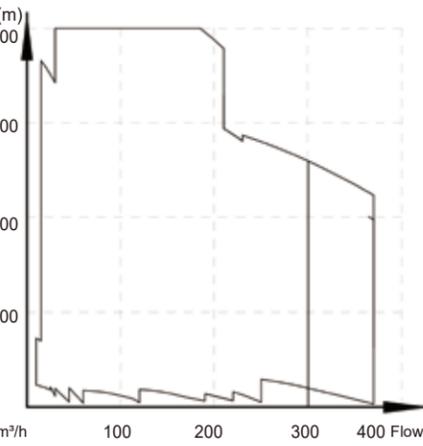


-  No overpower at all head points
-  Independent cascade mechanical seal and double-end faces mechanical seal
-  Smooth operation, high reliability and low energy consumption
-  IPx8/IP68 motor protection grade
-  F/H insulation grade

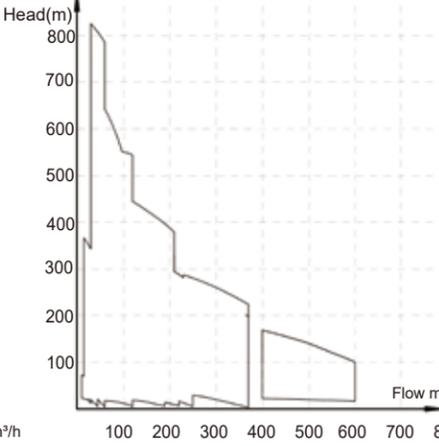
BQS series mining explosion-proof submersible drainage pump (Flows≤100m³/h, Heads≤100m)



BQS series mining explosion-proof submersible drainage pump (Flows≤400m³/h, Heads≤400m)



Note: BQS samples + statistical experimental reports are combined to form the maximum range, while not counting BQS pumps with flows above 500 m³/h



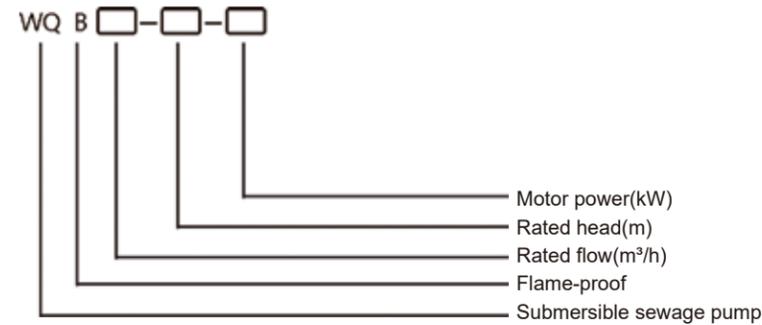
Main application

The product is used for sewage discharge in the IIB / IIC factory where the temperature group is T1-T4 of combustible gas and explosive mixture of steam and air. It is suitable for coal chemical industry, petrochemical industry, municipal engineering, urban engineering, hospital, hotels, residential areas and other places.

Working condition

- 1.Meeting the requirements of explosion-proof in accordance with the product flame -proof mark
- 2.Supply power: 380v/660v,660v/1140v, 3 phase, 50Hz,can be customized.
- 3.Medium temperature: 0-40°C (there will be other hot water pump model above this temperature range)
- 4.Medium PH value: 5-9
- 5.Medium density: $\leq 1100\text{kg/m}^3$
- 6.Maximum depth: 20m

Model and meaning



Explosion-proof main point

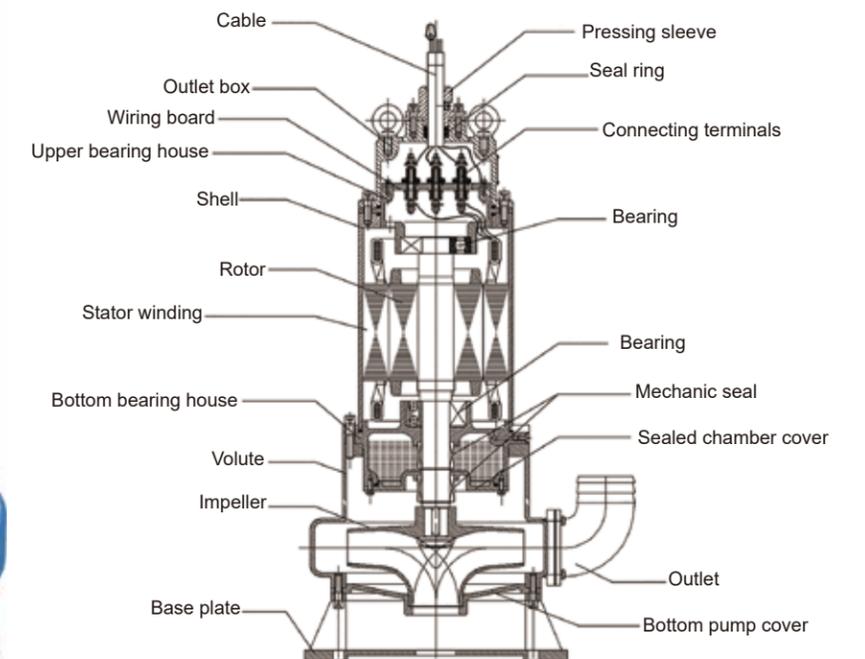
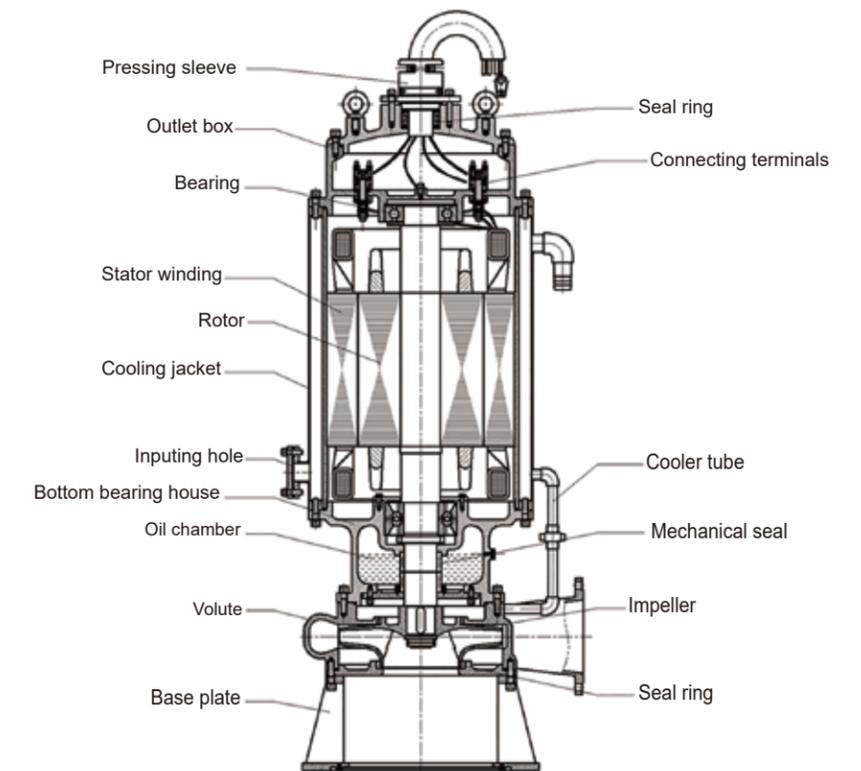
When the explosive gas mixture in the explosive-proof submersible sewage pump motor explodes, explosive-proof shell shall not be damaged and the internal flame will not cause further explosion. The parts of explosive shell are tested by water pressure tests according to GB3836.2- -2000 standard to ensure maximum internal pressure explosion.

The explosive-proof submersible sewage pump is marked as ExdIIBT4/ExdIICT4, which is suitable for factory IIB/IIC class, temperature group is T1-T4 of combustible gas and explosive mixture of steam and air. The maximum surface temperature must be in accordance with following list:

Temperature Group	T1	T2	T3	T4
Maximum surface temperature	450	300	200	200



WQ(B)series -External mounted electric pump



WQ(B)

performance parameter

Serial number	Model	Flow (m³/h)	Head (m)	Synchronous speed (r/min)	Power (kW)	Efficiency (%)	Outlet diameter (mm)		
1	10-15-1.5	10	15	3000	1.5	31	50		
2	15-16-1.5	15	16			32.5			
3	25-7-1.5	25	7			35.5			
4	15-22-2.2	15	22		2.2	36		65	
5	25-15-2.2	25	10			36			
6	35-7-2.2	35	7			38			
7	10-32-3	10	32		3	31			80
8	15-25-3	15	25			31.5			
9	25-15-3	25	15			37			
10	40-12-3	40	12			41.5			
11	52-7-3	52	7		4	41.5	100		
12	15-32-4	15	32			41			
13	20-30-4	20	30			37.8			
14	25-22-4	25	22			43.3			
15	50-15-4	50	15		5.5	44		50	
16	75-8-4	75	8			44			
17	12-50-5.5	12	50			33			
18	20-40-5.5	20	40		34	7.5			80
19	30-30-5.5	30	30		44				
20	40-20-5.5	40	20		44.5				
21	70-15-5.5	70	15		45.8				
22	100-10-5.5	100	10		7.5	52.5	100		
23	25-50-7.5	25	50			46.7			
24	30-36-7.5	30	36			44.5			
25	50-30-7.5	50	30		7.5	55		150	
26	75-20-7.5	75	20			55			
27	100-15-7.5	100	15			55.3			

WQ(B)

performance parameter

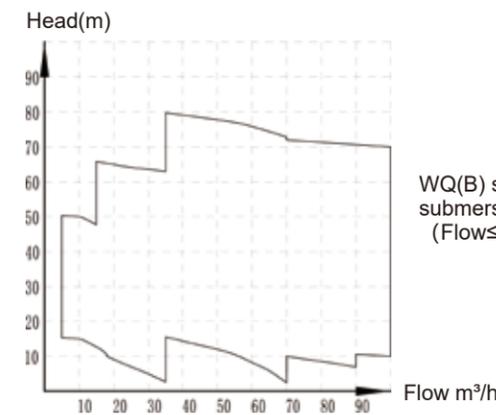
Serial number	Model	Flow (m³/h)	Head (m)	Synchronous speed (r/min)	Power (kW)	Efficiency (%)	Outlet diameter (mm)	
28	145-10-7.5	145	10	3000	7.5	56.5	150	
29	20-65-11	20	65	1500	11	38.6	50	
30	40-40-11	40	40			46	80	
31	50-35-11	50	35			56	100	
32	80-20-11	80	20			56.5	150	
33	150-15-11	150	15			55.8	15	80
34	200-10-11	200	10			57.5		100
35	40-50-15	40	50		44	150		
36	60-35-15	60	35		45.3	80		
37	100-22-15	100	22		18.5	48.6	100	
38	170-18-15	170	18			56.5	150	
39	200-15-15	200	15	57		200		
40	300-10-15	300	10	58		100		
41	80-35-18.5	80	35	22	47	80		
42	100-30-18.5	100	30		48	150		
43	150-25-18.5	150	25		57.5	200		
44	250-15-18.5	250	15	22	59	80		
45	40-80-22	40	80		44	150		
46	60-50-22	60	50		45.8	80		
47	80-40-22	80	40		47	200		
48	150-30-22	150	30	22	59.3	150		
49	200-20-22	200	20		60	80		
50	300-15-22	300	15		61	150		
51	80-60-30	80	60	22	48.5	80		
52	120-50-30	120	50		57.8	150		
53	200-30-30	200	30		59	200		
54	300-20-30	300	20		61	150		

WQ(B)

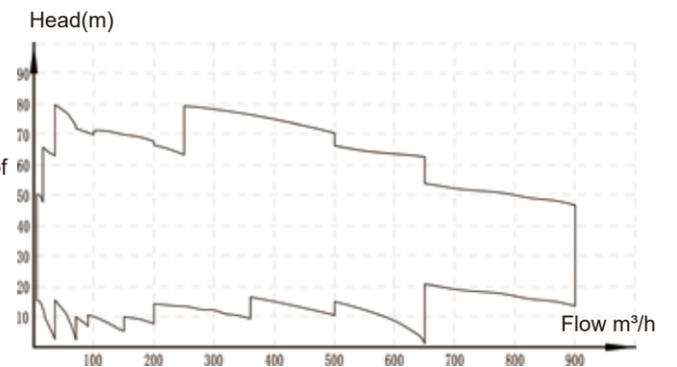
performance parameter

Serial number	Model	Flow (m³/h)	Head (m)	Synchronous speed (r/min)	Power (kW)	Efficiency (%)	Outlet diameter (mm)	
55	400-15-30	400	15	1500	30	63	200	
56	100-70-37	100	70		37	37	58.5	100
57	150-45-37	150	45				62	150
58	350-25-37	350	25				69.5	200
59	500-15-37	500	15				72	250
60	150-50-45	150	50				45	45
61	400-25-45	400	25		66	200		
62	500-20-45	500	20		67	250		
63	600-15-45	600	15		69	250		
64	150-70-55	150	70		55	55	58	150
65	200-50-55	200	50				59	200
66	400-30-55	400	30				66.6	200
67	500-25-55	500	25		75	75	68.3	250
68	600-20-55	600	20				68.5	250
69	200-70-75	200	70				90	90
70	300-50-75	300	50		60.5	200		
71	400-40-75	400	40		67	200		
72	600-28-75	600	25		68	250		
73	800-20-75	800	20		69	300		
74	220-70-90	220	70		110	110	58.5	150
75	300-60-90	300	60				62	200
76	500-35-90	500	35				64	200
77	900-20-90	900	20		110	110	70	300
78	400-60-110	400	60				69.8	200
79	600-40-110	600	40				70	250
80	700-32-110	700	32		110	110	71.5	250
81	1000-25-110	1000	25				73	300

Serial number	Model	Flow (m³/h)	Head (m)	Synchronous speed (r/min)	Power (kW)	Efficiency (%)	Outlet diameter (mm)	
82	600-50-132	600	50	1500	132	70	200	
83	500-60-132	500	60			69	200	
84	800-35-132	800	35			69.8	250	
85	1000-30-132	1000	30			80	300	
86	700-50-160	700	50			160	160	71.3
87	1000-35-160	1000	35		75			350
88	1500-25-160	1500	25		76.5			400
89	2000-20-160	2000	20		80			400
90	800-50-185	800	50		185	185	72.3	250
91	1000-40-185	1000	40				73.8	300
92	1500-30-185	1500	30				74.9	400
93	2500-18-185	2500	18				81.4	200
94	1200-40-200	1200	40		200	200	76	350
95	1500-32-200	1500	32				77.4	400
96	2000-25-200	2000	25				80	400
97	3000-16-200	3000	16				79.8	500



WQ(B) series explosion-proof submersible sewage pump (Flow ≤ 100m³/h)



Note: WQB samples + statistical experimental reports are combined to form the maximum range, while not counting WQB pumps with flows above 800m³/h



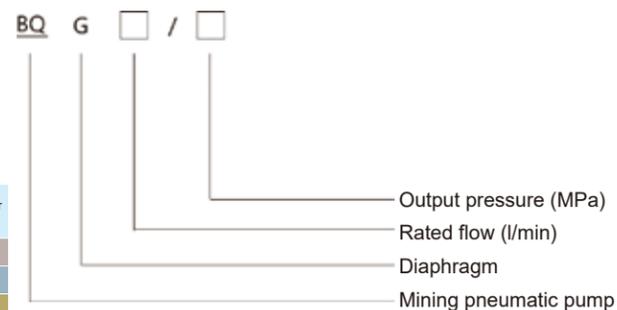
Outstanding features

1. Low energy consumption, environmental friendly;
2. Compact design, light weight, simple operation, wide application;
3. Pneumatic design, safe and reliable;
4. No damage to the pump during on load or overload condition;
5. Reciprocating motion without pause, high efficiency.

Working condition

- a) Pump any fluid medium as long as the medium concentration (volume ratio) is less than 15%.
- b) The maximum diameter of solid particles should not be over 9mm.
- c) Working temperature 5-50°C.
- d) Medium PH 6-8.
- e) Medium temperature should not be over 50°C.
- f) Pressure range 0.4MPa -0.8MPa.

Model and meaning



BQG170/0.25Z represents mining automatic diaphragm pump; rated flow is 170L/min,output pressure is 0.25Mpa.

Performance parameters

Model	Flow (L/min)	Output pressure (Mpa)	Air consumption (m ³ /h)	Rated air pressure (Mpa)	Weight (kg)	Dimension (mm)	Inlet/Outlet diameter (inch)
BQG170/0.25	170	0.25	0.5-1.5	0.6	25	490×400×340	1.5
BQG140/0.3	140	0.3	0.5-1.5	0.6	25	490×400×340	1.5
BQG100/0.4	100	0.4	0.5-1.5	0.6	25	490×400×340	1.5
BQG230/0.25	230	0.25	0.5-1.5	0.6	25	490×400×340	1.5
BQG180/0.3	180	0.3	0.5-1.5	0.6	25	490×400×340	1.5
BQG100/0.5	100	0.5	0.5-1.5	0.6	25	490×400×340	1.5
BQG350/0.2	350	0.2	1.2-2	0.6	33	644×438×390	2
BQG125/0.45	125	0.45	1.2-2	0.6	33	644×438×390	2
BQG250/0.3	250	0.3	1.2-2	0.6	33	644×438×390	2
BQG380/0.3	380	0.3	1.2-2	0.6	33	644×438×390	2
BQG400/0.25	400	0.25	1.2-2	0.6	33	644×438×390	2
BQG150/0.5	150	0.5	1.2-2	0.6	33	644×438×390	2
BQG450/0.3	450	0.3	1.5-2.5	0.6	55	890×538×477	3
BQG450/0.2	450	0.2	1.5-2.5	0.6	55	890×538×477	3
BQG200/0.4	200	0.4	1.5-2.5	0.6	55	890×538×477	3
BQG320/0.3	320	0.3	1.5-2.5	0.6	55	890×538×477	3
BQG500/0.2	500	0.2	1.5-2.5	0.6	55	890×538×477	3
BQG620/0.2	620	0.2	1.5-2.5	0.6	55	890×538×477	3
BQG700/0.12	700	0.12	1.5-2.5	0.6	55	890×538×477	3
BQG200/0.5	200	0.5	1.5-2.5	0.6	55	890×538×477	3



Outstanding features

- 1.Low noise, kept within 40 decibels, can be dived, and there is no noise in diving;
- 2.Small air consumption and high efficiency.
- 3.Small size, light weight, compact structure and portability.
- 4.The whole pump is made of cast steel, with a longer service life and few wearing parts, which is easy to maintain

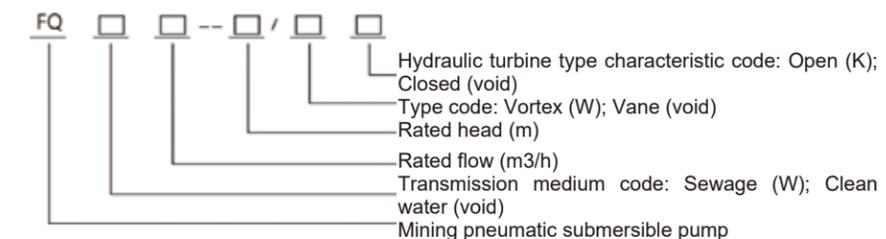
Performance parameters

Model	Rated flow (m ³ /h)	Rated head (m)	Working pressure (Mpa)	Air consumption (m ³ /h)	Weight (kg)	Dimension (mm)	Outlet diameter (mm)	Outlet diameter (mm)
FQW30-18/W	30	18	0.5	3.5-4.5	17.5	412×297	50	25
FQW20-25/W	20	25	0.5	3.5-4.5	17.5	412×297	50	25
FQW20-40/W	20	40	0.5	3.5-4.5	17.5	412×297	50	25
FQW25-10	25	10	0.5	3.5-4.5	17.5	412×297	50	25

Outstanding features

- 1.Low noise, kept within 40 decibels
- 2.Small air consumption and high efficiency.
- 3.Small size, light weight, compact structure and portability.

Model and meaning



Performance parameters

Model	Rated flow (m ³ /h)	Rated head (m)	Working pressure (Mpa)	Air consumption (m ³ /h)	Weight (kg)	Dimension (mm)	Outlet diameter (mm)
FQW20-25/W	20	25	0.5	4.5-5	30	347×274×462	40
FQW20-40/W	20	40	0.5	4.5-5	34	329×274×495	40
FQW40-20/W	40	20	0.5	4.5-5	31	347×274×462	40
FQW25-50/W	25	50	0.5	4.5-5	35	329×274×495	40
FQW30-18/W	30	18	0.5	4.5-5	35	329×274×495	40
FQW50-25/W	50	25	0.5	4.5-5	32	347×274×462	40
FQW48-12/W	48	12	0.5	4.5-5	31	347×274×462	40





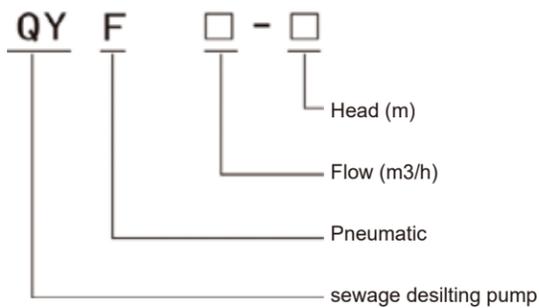
Outstanding features

1. Strong desilting capacity. It can pump flow materials with high solid contents.
2. Pneumatic products, no electronic parts, safe and reliable.
3. Compact structure, ingenious design, automatic operation.
4. No contact between moving parts and medium, wear-resistance, stable operation and long service life.
5. No damage during no-load or overload, easy maintenance.
6. Small size, light weight, portability, easy operation and wide application.

Working condition

- a) Inlet of the suction pipe submerges into the water.
- b) Medium temperature should not be over 40°C.
- c) Working environment temperature 5-40°C.
- d) Medium PH 4-10.
- e) The maximum diameter of solid particle should not be over 20mm.
- f) Air pressure 0.40MPa-0.70MPa.

Model and meaning



Model example: QYF20-20 represents mining sewage desilting pump medium for sewage, dirt, silt, etc. Rated flow is 20m³/h, rated head is 20m.

Performance parameters

Model	Flow (m ³ /h)	Pump head (m)	Rated wind pressure (Mpa)	limiting vacuum (Mpa)	Air consumption (m ³ /h)	Weight (kg)	Dimension (mm)	Input/Output Diameter (inch)
QYF10-20	10	20	0.6	0.08	2.5-3	216	1830×750×950	3
QYF14-20	14	20	0.6	0.08	3-3.5	235	1773×600×1000	3
QYF17-20	17	20	0.6	0.08	3.5-4.5	256	1977×700×1100	3
QYF20-20	20	20	0.6	0.08	4.5-5.5	285	1593×800×1200	3
QYF25-20	25	20	0.6	0.08	6.5-7.5	285	1610×800×1200	3
QYF25-25	25	25	0.6	0.08	6.5-7.5	310	1891×879×1724	3
QYF20-30	20	30	0.6	0.08	7.5-8.5	310	1891×879×1724	3
QYF30-20	30	20	0.6	0.08	7.5-9.5	365	1610×879×1736	3
QYF30-25	30	25	0.6	0.08	8.5-10.5	365	1610×879×1736	3
QYF35-25	30	25	0.6	0.08	9.5-10.5	365	1610×879×1736	3

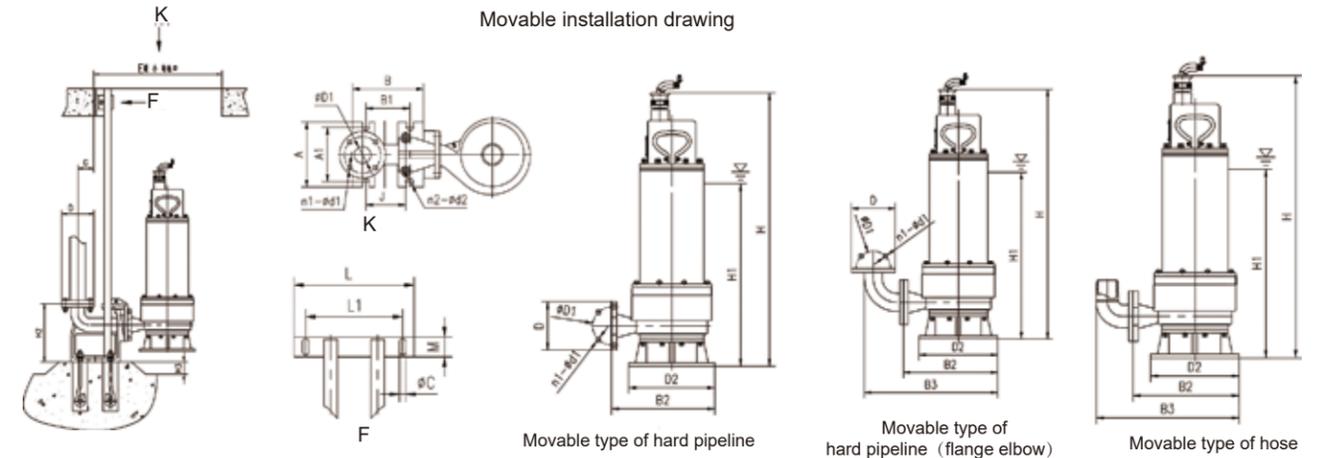
Installation method

Movable wet installation

The pump is connected with hose or steel pipe and put directly into the water without fixing, which is convenient to transfer to different sites.

Automatic coupling fixed wet mounting

The pump is automatically connected to the drain line using a coupling device. The pump is placed into the water along the guide rod and is automatically connected to the automatic drainage pipe. When lifting the pump, it is automatically loosened, and the installation and disassembly are extremely convenient.

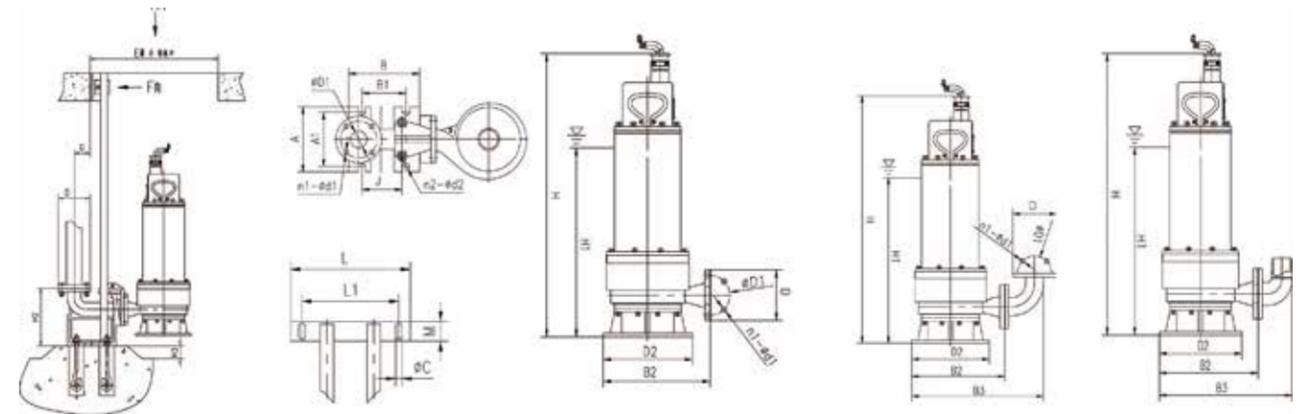


Vertical fixed dry installation

The pump is installed vertically in a clean pump pit beside the pool, and personnel can enter the pump pit to quick repair. Even if the pump pit is flooded, the pump can still operate normally.

Horizontal fixed dry installation

The pump is installed horizontally in a clean pump pit beside the pool, and personnel can enter the pump pit to quick repair. Even if the pump pit is flooded, the pump can still operate normally.



Pump model selection

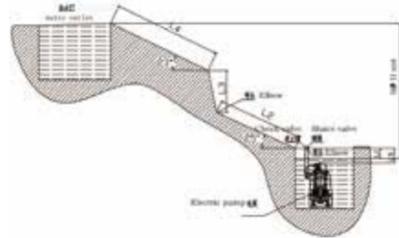
Find the desirable pump in the basic parameter charts according to the requirement of flow $Q(m^3/h)$ and head (m). The flow should be in the range from -2% to +5% of the requirement, head should be above 2%- 3% of the requirement.

As for how to choose the right pump, the following are some brief instructions that might be of help.

The flow stated on the pump's nameplate and performance parameter chart is known as the rated flow, and the corresponding head is known as rated head (generally it is when the pump achieves the best performance). Assume that the speed of the pump keeps the same, generally speaking, as the flow increases, the corresponding head will decrease, while the input (output) power of the motor will increase with the increase of the flow. If the flow exceeds the rated flow 1.2 times, the motor will run overload, leading to the burn of the submersible motor. The flow is the amount of fluid delivered by the pump in one unit time; the head is the energy increment when one unit weight of fluid is pumped from the inlet to the outlet (In short, under the condition of no energy consumption, the head is the vertical height between the water surface inside the pump and the resulting water level when one unit weight of fluid is pumped, i.e. the vertical water level measured in meters).

Must know when choosing the head: 1. Net head - the vertical water level (m); 2. $H(\text{required}) = H(\text{net}) + H(\text{loss})$; 3. $H(\text{loss})$ - the energy loss when the fluid flows through parts like the pipe, valve and elbow, etc.

For example (as below):



As for the inclined shaft in mines, the net head cannot be measured directly, generally speaking, we can only know the slope angle and slope length.

As shown in figure: $H_{\text{net}} = L_1 + L_2 \sin 25^\circ + L_3 + L_4 \sin 23^\circ$.

If: $L_1=3m$; $L_2=50m$; $L_3=5m$; $L_4=70m$; $L_5=5m$,

then: $H_{\text{net}} = 3 + 50 \sin 25^\circ + 5 + 70 \sin 23^\circ$

$= 3 + 50 \times 0.423 + 5 + 70 \times 0.391 = 56.482(m)$

The following table lists the sine function values for the common sloping slope.

Table 1: the common mine slope angle sine function value.

α°	$\text{Sin}\alpha^\circ$	α°	$\text{Sin}\alpha^\circ$	α°	$\text{Sin}\alpha^\circ$	α°	$\text{Sin}\alpha^\circ$
15°	0.259	20°	0.342	25°	0.423	30°	0.500
16°	0.276	21°	0.358	26°	0.433	31°	0.515
17°	0.292	22°	0.375	27°	0.454	32°	0.530
18°	0.309	23°	0.391	28°	0.470	33°	0.545
19°	0.326	24°	0.407	29°	0.485	34°	0.559

Pipe loss calculation: convert whole water pipe (including valve and elbow) into equivalent length, then look for the loss value according to flow volume and equivalent length from table 2.

Table 2: Straight pipe friction loss simple list (for estimating)

Pipe loss(m)	Flow(m^3/h)	Nominal diameter(mm)												
		15	20	25	30	40	50	70	80	100	120	150	200	
50		10	17	21	28									
75		2	3	4	6	10	15	26	45					
100					2	3	4	6	9	12	20	25	35	
125									3	5	8	15	22	
150										1	2	4	7	

Table 2 is the loss of each 100m steel pipe, plastic pipe loss of about 0.7 times the steel pipe. Rubber pipe loss is almost equal to steel pipes, cast iron pipe loss is about 1.4 times of steel pipes, old cast iron pipe loss is 2 times of new cast iron pipes.

Table 3: Each valve and elbow convert into straight pipe length;

kind	Equivalent length of pipe	Remarks
Open gate valve	13 times the diameter of the pipe	Double not fully open
Standard elbow	25 times the diameter of the pipe	
Check valve	100 times the diameter of the pipe	

Above figure $w = 5m^3/h$, according to list 3, then calculate equivalent pipe length:

equivalent pipe length $L = L_5 + L_2 + L_3 + L_4 + 13 \times 0.075 + 3 \times 25 \times 0.075 + 1 \times 100 \times 0.075$
 $= 5 + 50 + 5 + 70 + 0.975 + 5.625 + 7.5 = 144.1(m)$

Loss every 100m is 15m from list 2 according to pipe diameter and flow volume.

$H_{\text{loss}} = 15 \times 144.1 / 100 = 21.615m$

$H_{\text{need}} = H_{\text{net}} + H_{\text{loss}} = 56.482 + 21.615 = 78.097(m)$

$H_{\text{rated}} = H_{\text{need}} \times (1.02 \sim 1.03) = (79 \sim 80)m$

Find corresponding or similar pump type according to H_{rated} (79~80m) and flow volume $50m^3/h$ from pump fundamental performance parameter and confirm the right one.

Order instructions

1. Please indicate the product model, product name, performance parameters (flow, head), installation, accessories when placing an order.

2. Please provide medium details including medium density, PH, solid content, particle size etc., we shall offer the proper model for your reference.

After-sales service

Currently, Antai pump has built 13 after-service sites at home and abroad, we can provide the service items as below:

- Technical training
- Equipment evaluation
- Installation and adjustment
- Trouble-shooting
- Maintenance and repairing
- The modification & improvement of equipment.

