Since 1958

Keeping the world green forever and being responsible for the future

Enhancement Submersible Sewage Pump

WQ Type Submersible Sewage Pump

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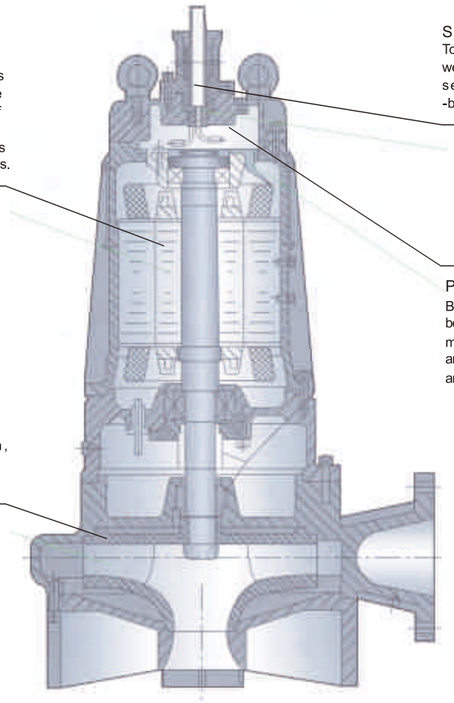
Features of structure

Design of enhancement submersible sewage pumps is featured with high reliability in every respect.



Motor
The unique insulation design ensures the motor can still run normally if little water is in it. The optimal design of motor guarantees the pump is able to start running when the hydraulic parts is submerged by some mud and sands.

Sealing design
To meet the requirement of deep sub-mersion, we take many improvement measures for pump sealing,Unique sealing technique, which ena -bles the product to be safer and more reliable.

Protection measures
Besides usual motor protection, the junction box chamber, motor and oil chamber are mounted with the leakage detector respectively, and two sets of stator ultra temperature protector are installed in the windings of motor stator.

Hydraulic part
Processed with advanced CFD flow field diagnose technology, it has many merits like high head, total head,high efficiency, no block and anticorrosion, etc., reaches international leading level.

Design of enhancement submersible sewage pumps

Lamsun Group thoroughly recommends this high-efficiency, high-reliability and high-quality enhancement submersible sewage pump. For many years of accumulation of studying, manufacturing and application experience.

Improve the following items:
Optimization design of integral structure
Use new material
Improved motor
Newly designed watertight cable inlet
Optimization design of hydraulic power compo -nents with the help of computer modeling technique

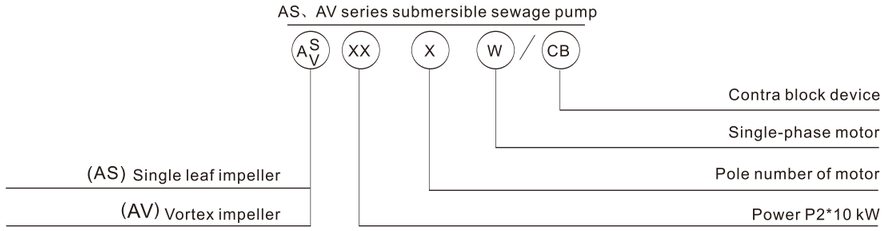
Upgrade the following performance:
Prolong the service life of the machine
Strengthen its durability
Reinforce its service reliability
Enhance its capability of anti block or intertwist

Service system:
Through our sales network that spread all over the country, Lanshen Group is able to guarantee a close contact with users throughout the country and offer perfect service in time.

Product range of use

Be used for the drainage of serious polluted water in factory or commerce.
Be used for the drainage of sewage in residential area.
Be used for the drainage of sewage in hospital and hotel.
Be used as support machine for exploration and mining.
Be used for the water supply and drainage in waterworks.
Be used for the water supply and drainage system in city sewage treatment factory.
Be used for the drainage of water in civil air defense system.
Be used for the municipal engineering and construction site.
Be used for agricultural methane, agricultural irrigation.

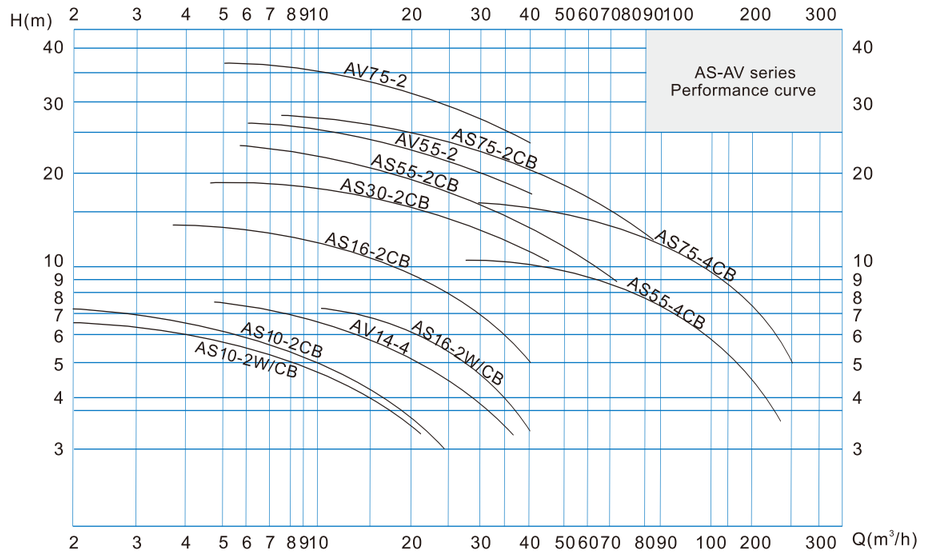
Product model description



Technology performance data

No.	Type	Capacity m^3/h	Head H(m)	Eff η(%)	Power (Kw)	Speed n(r/min)	Voltage (v)	Current (A)	Dia.DN (Φmm)	Through the particles (Φmm)	Electric control cabinet for distribution	Mode of autoco–upling system	Weight (kg)
1	AS10–2CB	22	4.1	25.5	1.0	2850	380	2.9	80	30	QC	80GAK	30
2	AS16–2CB	29	7.8	46.5	1.6	2850	380	3.7	80	30		80GAK	33
3	AS30–2CB	42	10.6	45	2.9	2850	380	6.4	80	30		80GAK	40
4	AS55–2CB	65	12	55	5.5	2900	380	11.7	100	50		100GAK	165
5	AS55–4CB	100	7.5	59.8	5.5	1450	380	12.3	150	80		150GAK	180
6	AS75–2CB	85	13	57.9	7.5	2900	380	15.7	100	50		100GAK	185
7	AS75–4CB	145	10	62	7.5	1450	380	16.3	150	80		150GAK	200
8	AV14–4	22	5.8	36.5	1.4	1450	380	3.3	80	30		80GAK	33
9	AV55–2	30	20	52.4	5.5	2900	380	11.7	100	50		100GAK	150
10	AV75–2	30	25	52.4	7.5	2900	380	15.7	100	50		100GAK	150
11	AS10–2W–CB	18.5	3.5	30	0.8	2850	220	5.7	80	30		80GAK	30
12	AS16–2W/CB	22	6	29.5	1.2	2850	220	7.5	80	30		80GAK	33

Performance curve

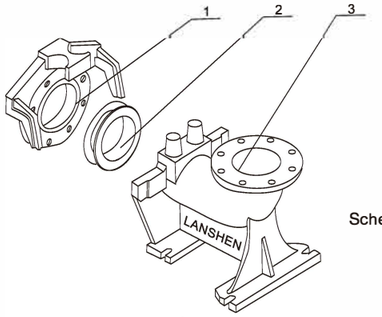


Mounting method

The monoblock-designed submersible sewage pumps,are featured with characteristics of compact volume,high efficiency, convenient maintenance,economical operating and strong adaptability,the installation mode includes fixed wet mounting , Movable Movable mounting (or fixed type mounting with support bracket)

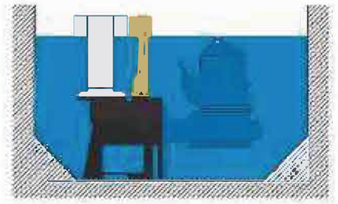
Fixed wet type mounting

Adopt automatic coupling device, the water pump can slide to base along the rail and couple with the water inlet automatically and seal reliably (refer to the installation specification of automatic coupling device for details) (diagram 1).

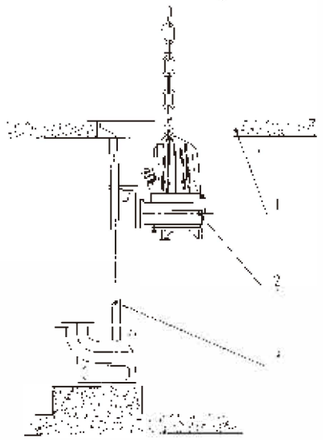


1、Support bracket
2、Profile washer
3、Base

Schematic diagram of base assembly of automatic coupling system



(diagram 1)Fixed wet type mounting



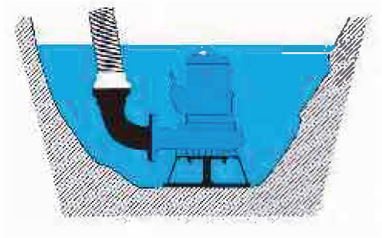
1、Pool mouth
2、Water pump
3、Guide rai

Schematic diagram automatic coupling device

Adopt Lumsun dual rail automatic coupling device, the water pump (hoisting angle 3~5°)can slide to the mounting position on base along the rail automatically, and the water outlet and the inlet of base assembly will seal automatically.

Movable mounting

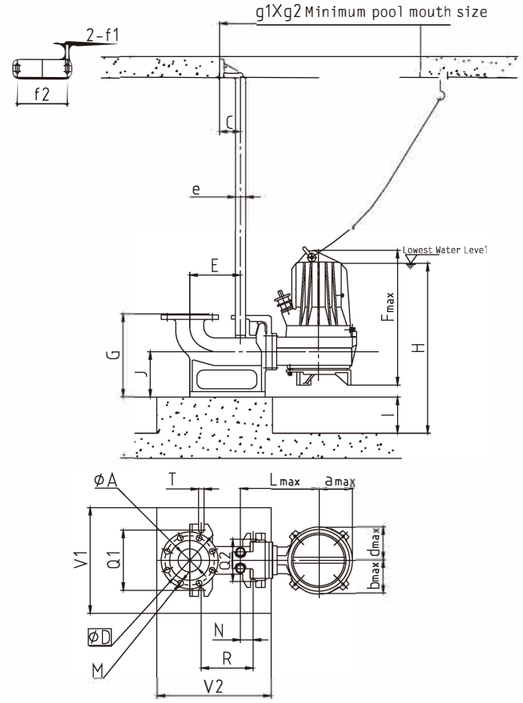
It is supported by the support bracket, which is not fixed on the base. It begins to work once wired with delivery hose. This mode is usually applied to maintenance, temporary drainage during construction (only for pumps of 4kw below). (Diagram 3)



(diagram 3)Movable mounting

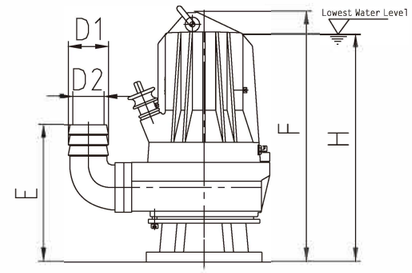
AS、AV Series fixed wet type mounting mounting system and picture

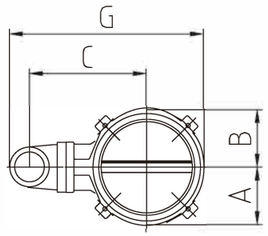
自耦	80GAK	100GAK	150GAK
A	80	100	150
C	70	80	85
D	150	180	240
E	168	215	245
Fmax	580	1100	1470
G	275	385	435
H	650	1030	1150
J	150	205	235
Lmax	265	370	395
M	8-Φ18	8-Φ18	8-Φ22
N	42	47	57
Q1/Q2	200/140	220/190	250/200
g1/g2	600/500	900/700	950/750
R	172	237	270
T	4-18	4-18	4-20
amax	146	180	205
bmax	146	200	235
dmax	146	180	205
f1/f2	12/166	12/160	12/160
e	Φ33.5	Φ48	Φ48
V1/V2	450/550	450/550	550/650



Outling size

Spec.& Model	A	B	C	D1	D2	E	F	G	H
AS10-2CB	116	107	200	77	60	260	475	350	440
AS10-2W/CB	116	107	200	77	60	260	475	350	440
AS16-2CB	116	107	200	77	60	260	475	350	440
AS16-2W/CB	116	107	200	77	60	260	475	350	440
AS30-2CB	110	110	225	77	60	265	480	375	440
AV14-4	140	140	230	77	60	215	445	410	410
AS55-2CB	205	150	405	127	100	430	815	630	755
AS75-2CB	205	150	405	127	100	430	815	630	755
AS55-4CB	230	180	440	152	125	505	900	725	850
AS75-4CB	230	180	440	152	125	505	900	725	850
AV55-2	168	168	400	127	100	440	820	625	760
AV75-2	168	168	400	127	100	440	820	625	760





WQ Type Submersible Sewage Pump

Product profile

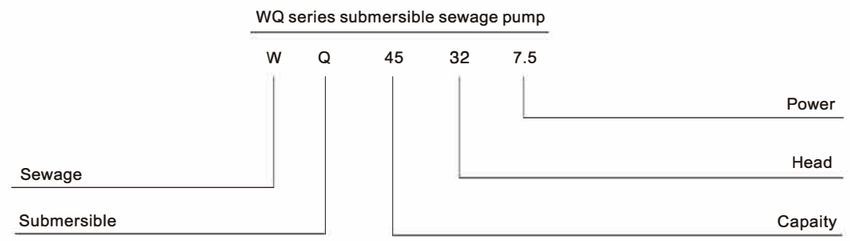
WQ type submersible sewage pumps are developed on the basis of adsorbing advanced technology from famous pump manufacturing company in German, with advantages of high technological starting point, obvious energy saving capability, strong matching capability, wide applicability and so on, are listed as key introduced and digested products by former State Committee of Machinery Industry, and have passed the export quality certification and CE certification. After put into the market, the products win favorable comments due to their unique functions and reliable quality, not only are far resold to international market in batch, but also are selected by many national key construction projects to substitute for imported products. This type of products had the honor to be listed as developing item of "Torch Program" by State Science and Technology Commission in 1995, as recommended products by Ministry of Construction, and as promotion products by State Science and Technology Commission in 1997.

Product features and purposes

1、WQ type submersible sewage pumps adopt large-channel anti-block hydraulic power parts, which allow solid particles of dia. 125MM to pass smoothly.
2、The electrical motor adopts water jacket type circulated water cooling system to make sure that the electric pump can work reliably under dry condition.
3、Unique condensation-proof device of motor, removes dampness from the motor automatically to keep its insulation at 300M above at high temperature, make sure that it can work normally and reliably.
4、Automatic coupling system, simple installation, need not pump house, which cut down the construction cost and running cost sharply.
5、The automatic protection system has multifunctional running display, which can make centralized control to every running state and protect it effectively.
6、WQ type submersible sewage pumps can be applied to municipal engineering, factory, commerce, hospital, hotel, residential area and so on, used to drain sewage, waste water or rainwater that contain solid particles or long fibers, also can be used to supply water and irrigate agricultural land.

Range of use and service condition

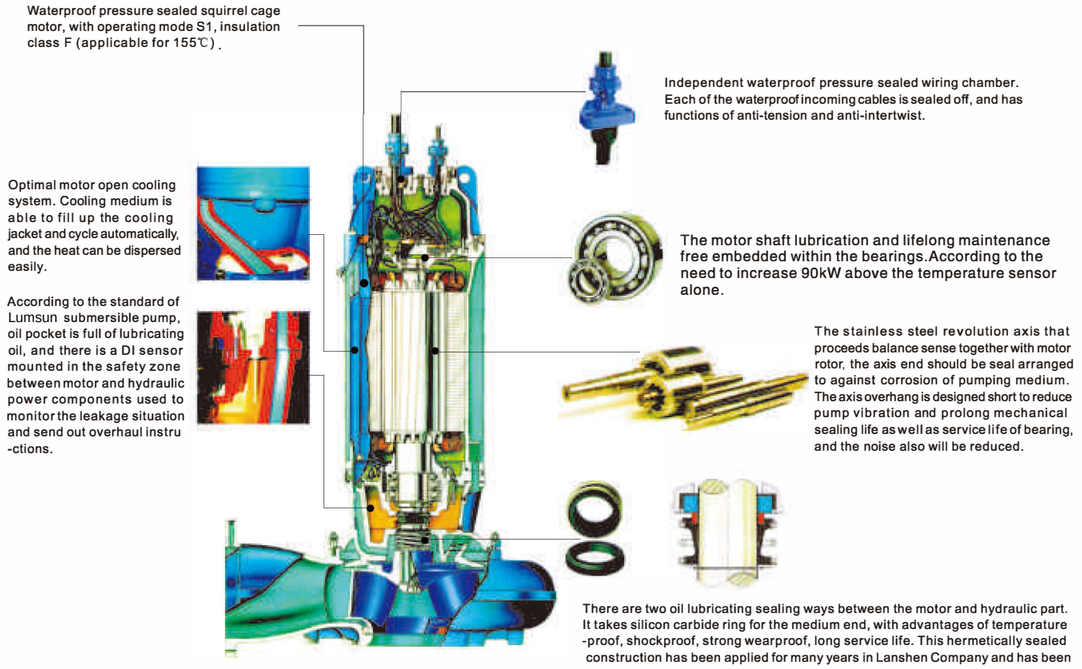
Ph：5~9。Water temperature≤40℃。
(WaterSpecial working media such as: high temperature, slightly corrosive media, sea water and others can be customized.)



Structure description diagram

This series submersible sewage pump adopts advanced technology from foreign countries, has reasonable structure and superior performance. Operating mode of squirrel cage motor is S1, stator insulation class is F (155℃). With condensation-resistant device, and there is overload protection element for each phase.

The special " Lumsun LSK-1 series" water pump and water treatment equipment special control cabinet are adopted to ensure durable equipment and stable and reliable operation. (refer to next pages for details)



Impeller design

Lumsun bravely innovates submersible sewage pump on the aspect of general structure and hydraulic model design,and employs CFD flow field analysis technology and finite element analysis. The impeller vibrates little during performing balance inspection,so that the pump can run stably. The impeller is processed separately to reach the specified working Points, so as to carry the liquid with the best flowing way and speed and max efficiency.

Large-channel impeller

Be used for carrying the wastewater with large solid particle
Large-channel impeller runs in the volute casing. The shape and size of channel doesn't bringthe jam, therefore, it is the ideal that the impeller is acted as pump to carry the waste water with large solid particle

Peripheral impeller

Be suitable for waster water with solid particle
The water process of peripheral impeller that is the impeller triggers the vortex flow in rapid rotating and makes hydarulic pressure rise.

Multi-blade impeller

The impeller is designed into multi-blade type, can carry water effectively without blocking.

Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed r/min	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
1	WQ10-10-0.75	10	10	2900	0.75	50	50GAK	25	29
2	WQ15-7-0.75	15	7	2900	0.75	50	50GAK	25	29
3	WQ15-10-1.1	15	10	2900	1.1	50	50GAK	25	29
4	WQ26-6-1.1	26	6	2900	1.1	50	50GAK	25	29
5	WQ10-18-1.5	10	18	2900	1.5	50	50GAK	25	32
6	WQ16-15-1.5	16	15	2900	1.5	50	50GAK	25	32
7	WQ20-12-1.5	20	12	2900	1.5	50	50GAK	25	32
8	WQ28-10-1.5	28	10	2900	1.5	50	50GAK	25	32
9	WQ30-8-1.5	30	8	2900	1.5	50	50GAK	25	32
10	WQ15-20-2.2	15	20	2900	2.2	50	50GAK	25	45
11	WQ22-17-2.2	22	17	2900	2.2	50	50GAK	25	45
12	WQ27-15-2.2	27	15	2900	2.2	50	50GAK	25	45
13	WQ30-12-2.2	30	12	2900	2.2	50	50GAK	25	45
14	WQ40-10-2.2	40	10	2900	2.2	50	50GAK	25	45
15	WQ50-8-2.2	50	8	2900	2.2	50	50GAK	25	45
16	WQ20-22-3	20	22	2900	3	50	50GAK	25	49
17	WQ35-16-3	35	16	2900	3	50	50GAK	25	49
18	WQ40-13-3	40	13	2900	3	50	50GAK	25	49
19	WQ55-10-3	55	10	2900	3	50	50GAK	25	49
20	WQ80-8-3	80	8	2900	3	100	100GAK	35	49
21	WQ100-5-3	100	5	2900	3	100	100GAK	50	49
22	WQ20-29-4	20	29	2900	4	80	80GAK	35	75
23	WQ25-25-4	25	25	2900	4	80	80GAK	35	75
24	WQ35-20-4	35	20	2900	4	80	80GAK	35	75
25	WQ47-18-4	47	18	2900	4	80	80GAK	35	75
26	WQ50-16-4	50	16	2900	4	80	80GAK	35	75
27	WQ60-13-4	60	13	2900	4	80	80GAK	35	75
28	WQ70-10-4	70	10	2900	4	80	80GAK	35	75
29	WQ140-5-4	140	5	980	4	150	150GAK	45	145
30	WQ160-4-4	160	4	980	4	150	150GAK	45	145
31	WQ180-3-4	180	3	980	4	150	150GAK	45	145
32	WQ200-2.5-4	200	2.5	980	4	150	150GAK	45	145
33	WQ250-2-4	250	2	980	4	150	150GAK	45	145
34	WQ23-35-5.5	23	35	1470	5.5	80	80GAK	35	175
35	WQ25-30-5.5	25	30	1470	5.5	50	50GAK	25	175
36	WQ35-25-5.5	35	25	1470	5.5	50	50GAK	25	175
37	WQ30-21-5.5	30	21	1470	5.5	100	100GAK	40	175

Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed r/min	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
38	WQ40-26-5.5	40	26	1470	5.5	100	100GAK	40	175
39	WQ50-21-5.5	50	21	1470	5.5	100	100GAK	40	175
40	WQ65-15-5.5	65	15	1470	5.5	100	100GAK	40	175
41	WQ80-14-5.5	80	14	1470	5.5	100	100GAK	40	175
42	WQ90-12-5.5	90	12	1470	5.5	100	100GAK	40	175
43	WQ100-8-5.5	100	8	1470	5.5	150	150GAK	45	175
44	WQ115-7-5.5	115	7	1470	5.5	150	150GAK	45	175
45	WQ170-6-5.5	170	6	1470	5.5	200	200GAK	60	220
46	WQ200-5-5.5	200	5	1470	5.5	200	200GAK	60	220
47	WQ10-48-7.5	10	48	2900	7.5	80	80GAK	35	200
48	WQ25-40-7.5	25	40	2900	7.5	80	80GAK	35	200
49	WQ30-35-7.5	30	35	2900	7.5	80	80GAK	35	200
50	WQ45-32-7.5	45	32	1470	7.5	100	100GAK	40	200
51	WQ50-27-7.5	50	27	1470	7.5	100	100GAK	40	200
52	WQ60-25-7.5	60	25	1470	7.5	100	100GAK	40	200
53	WQ70-20-7.5	70	20	1470	7.5	100	100GAK	40	200
54	WQ90-18-7.5	90	18	1470	7.5	100	100GAK	40	200
55	WQ100-15-7.5	100	15	1470	7.5	100	100GAK	40	200
56	WQ150-10-7.5	150	10	1470	7.5	100	100GAK	40	200
57	WQ150-9-7.5	150	9	1470	7.5	150	150GAK	45	200
58	WQ180-7-7.5	180	7	1470	7.5	150	150GAK	45	200
59	WQ210-6-7.5	210	6	1470	7.5	200	200GAK	60	220
60	WQ250-5-7.5	250	5	1470	7.5	200	200GAK	60	220
61	WQ800-2-10	800	2	1470	10	100	100GAK	40	280
62	WQ70-22-11	70	22	1470	11	100	100GAK	40	261
63	WQ60-30-11	60	30	1470	11	100	100GAK	40	261
64	WQ100-16-11	100	16	1470	11	150	150GAK	45	244
65	WQ180-13-11	180	13	1470	11	150	150GAK	45	244
66	WQ250-9-11	250	9	1470	11	200	200GAK	60	290
67	WQ300-7-11	300	7	1470	11	200	200GAK	60	290
68	WQ350-6-11	350	6	1470	11	200	200GAK	60	290
69	WQ500-5-11	500	5	1470	11	250	250GAK	65	295
70	WQ500-5-11	500	5	980	11	250	250GAK	65	459
71	WQ550-3-11	550	3	740	11	250	250GAK	65	500
72	WQ70-32-15	70	32	1470	15	100	100GAK	40	280
73	WQ125-25-15	125	25	1470	15	100	100GAK	45	280
74	WQ170-18-15	170	18	1470	15	150	150GAK	45	255

Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
75	WQ200-16-15	200	16	1470	15	150	150GAK	45	255
76	WQ250-13-15	250	13	1470	15	150	150GAK	45	255
77	WQ300-10-15	300	10	1470	15	200	200GAK	60	255
78	WQ400-9-15	400	9	1470	15	200	200GAK	60	298
79	WQ450-8-15	450	8	1470	15	200	200GAK	60	298
80	WQ550-6-15	550	6	1470	15	250	250GAK	65	320
81	WQ600-5-15	600	5	980	15	250	250GAK	65	459
82	WQ50-36-18.5	50	36	1470	18.5	100	100GAK	40	450
83	WQ80-34-18.5	80	34	1470	18.5	100	100GAK	40	450
84	WQ100-30-18.5	100	30	1470	18.5	100	100GAK	40	450
85	WQ190-22-18.5	190	22	1470	18.5	150	150GAK	45	450
86	WQ250-18-18.5	250	18	1470	18.5	150	150GAK	45	450
87	WQ300-16-18.5	300	16	1470	18.5	150	150GAK	45	450
88	WQ400-10-18.5	400	10	1470	18.5	200	200GAK	60	450
89	WQ500-8-18.5	500	8	1470	18.5	250	250GAK	65	500
90	WQ700-6-18.5	700	6	740	18.5	300	300GAK	80	750
91	WQ800-5-18.5	800	5	740	18.5	300	300GAK	80	750
92	WQ50-44-22	50	44	1470	22	100	100GAK	40	500
93	WQ80-38-22	80	38	1470	22	100	100GAK	40	500
94	WQ100-35-22	100	35	1470	22	100	100GAK	40	500
95	WQ150-22-22	150	22	1470	22	150	150GAK	45	500
96	WQ200-25-22	200	25	1470	22	150	150GAK	45	500
97	WQ250-20-22	250	20	1470	22	150	150GAK	45	500
98	WQ300-18-22	300	18	1470	22	150	150GAK	45	500
99	WQ400-13-22	400	13	1470	22	200	200GAK	60	500
100	WQ500-9-22	500	9	1470	22	250	250GAK	65	500
101	WQ600-7-22	600	7	1470	22	250	250GAK	65	500
102	WQ1150-5-22	1150	5	740	22	300	300GAK	80	750
103	WQ250-25-25	250	26	1470	25	150	150GAK	45	520
104	WQ420-15-25	450	15	1470	25	200	200GAK	65	521
105	WQ130-48-30	130	48	1470	30	150	150GAK	45	750
106	WQ160-42-30	160	42	1470	30	150	150GAK	45	750
107	WQ200-30-30	200	30	1470	30	150	150GAK	45	750
108	WQ250-28-30	250	28	1470	30	150	150GAK	45	750
109	WQ300-22-30	300	22	1470	30	150	150GAK	45	750
110	WQ350-20-30	350	20	1470	30	200	200GAK	60	750
111	WQ420-18-30	420	18	1470	30	200	200GAK	60	750

Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
112	WQ500-16-30	500	16	1470	30	200	200GAK	65	750
113	WQ600-12-30	600	12	1470	30	250	250GAK	65	750
114	WQ800-8-30	800	8	980	30	300	300GAK	65	750
115	WQ1100-6-30	1100	6	980	30	300	300GAK	80	750
116	WQ135-56-37	135	56	1470	37	100	100GAK(S)	40	750
117	WQ150-45-37	150	45	1470	37	150	150GAK	45	750
118	WQ185-42-37	185	42	1470	37	150	150GAK	45	750
119	WQ250-30-37	250	30	1470	37	150	150GAK	45	750
120	WQ300-24-37	300	24	1470	37	150	150GAK	45	750
121	WQ400-21-37	400	21	1470	37	200	200GAK	60	750
122	WQ620-15-37	620	15	1470	37	250	250GAK	65	750
123	WQ720-12-37	720	12	1470	37	250	250GAK	65	750
124	WQ900-9-37	900	9	980	37	300	300GAK	80	800
125	WQ1100-8.5-37	1100	8.5	980	37	300	300GAK	80	800
126	WQ1200-7-37	1200	7	980	37	300	300GAK	80	800
127	WQ1400-6-37	1400	6	740	37	400	400GAK	110	1200
128	WQ1500-5-37	1500	5	740	37	400	400GAK	110	1200
129	WQ100-60-45	100	60	1470	45	100	100GAK(S)	40	800
130	WQ180-50-45	180	50	1470	45	100	100GAK(S)	40	800
131	WQ250-37-45	250	37	1471	45	150	150GAK	45	800
132	WQ300-30-45	300	30	1472	45	200	200GAK	60	800
133	WQ360-28-45	360	28	1470	45	150	150GAK	45	800
134	WQ400-28-45	400	28	1470	45	200	200GAK	60	800
135	WQ500-22-45	500	22	1470	45	200	200GAK	60	800
136	WQ600-20-45	600	20	1470	45	250	250GAK	65	800
137	WQ720-16-45	720	16	1470	45	250	250GAK	65	800
138	WQ800-15-45	800	15	1470	45	300	300GAK	80	850
139	WQ950-11-45	950	11	1470	45	300	300GAK	80	850
140	WQ1000-9.5-45	1000	9.5	1470	45	300	300GAK	80	850
141	WQ1500-8-45	1500	8	980	45	400	400GAK	110	1500
142	WQ1500-6-45	1500	6	740	45	400	400GAK	110	1500
143	WQ1800-5-45	1800	5	740	45	400	400GAK	110	1500
144	WQ280-41-55	280	41	1470	55	200	200GAK	60	1000
145	WQ300-36-55	300	36	1470	55	200	200GAK	60	1000
146	WQ380-32-55	380	32	1470	56	200	200GAK	60	1000
147	WQ400-30-55	400	30	1470	55	200	200GAK	65	1000
148	WQ500-26-55	500	26	1470	55	200	200GAK	65	1000

Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed r/min	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
149	WQ600-24-55	600	24	1470	55	250	250GAK	65	1000
150	WQ700-22-55	700	22	1470	55	250	250GAK	65	1000
151	WQ800-16-55	800	16	980	55	300	300GAK	80	1200
152	WQ1000-13-55	1000	13	980	55	300	300GAK	80	1200
153	WQ1300-10-55	1300	10	980	55	300	300GAK	80	1200
154	WQ1500-10-55	1500	10	980	55	400	400GAK	110	1200
155	WQ1600-8.5-55	1600	8.5	980	55	400	400GAK	110	1200
156	WQ1700-8-55	1700	8	980	55	400	400GAK	110	1200
157	WQ1800-7-55	1800	7	980	55	400	400GAK	110	1200
158	WQ300-56-75	300	56	1470	75	200	200GAK(S)	60	1800
159	WQ400-40-75	400	40	1470	75	200	200GAK	60	1800
160	WQ650-26-75	650	26	1470	75	300	300GAK	80	1800
161	WQ700-24-75	700	24	1470	75	300	300GAK	80	1800
162	WQ950-20-75	950	20	1470	75	300	300GAK	80	1800
163	WQ1000-16-75	1000	16	980	75	300	300GAK	80	1800
164	WQ1300-12-75	1300	12	980	75	300	300GAK	80	1800
165	WQ1600-10-75	1600	10	980	75	400	400GAK	110	1800
166	WQ2000-8-75	2000	8	980	75	400	400GAK	110	1800
167	WQ2700-8-75	2700	8	740	75	500	500GAK	150	2300
168	WQ3000-6-75	3000	6	740	75	500	500GAK	150	2300
169	WQ330-60-90	330	60	1470	90	200	200GAK(S)	60	1800
170	WQ400-46-90	400	46	1470	90	300	200GAK(S)	60	1800
171	WQ600-30-90	600	30	1470	90	300	300GAK	80	1800
172	WQ800-27-90	800	27	1470	90	300	300GAK	80	1800
173	WQ950-24-90	950	24	1470	90	300	300GAK	80	1800
174	WQ1000-22-90	1000	22	1470	90	300	300GAK	80	1800
175	WQ1150-17-90	1150	17	980	90	400	400GAK	110	1900
176	WQ1300-16-90	1300	16	980	90	400	400GAK	110	1900
177	WQ1400-15-90	1400	15	980	90	400	400GAK	110	1900
178	WQ1600-12-90	1600	12	980	90	400	400GAK	110	1900
179	WQ2000-10-90	2000	10	980	90	400	400GAK	110	1900
180	WQ2900-8-90	2900	8	740	90	500	500GAK	125	2500
181	WQ450-50-110	450	50	1470	110	250	250GAK	65	1850
182	WQ650-45-110	650	45	1470	110	250	250GAK	65	1850
183	WQ750-38-110	750	38	1470	110	250	250GAK	65	1850
184	WQ800-30-110	800	30	1470	110	250	250GAK	65	1850
185	WQ1200-24-110	1200	24	1470	110	300	300GAK	80	1800

Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed r/min	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
186	WQ1300-20-110	1300	20	980	110	400	400GAK	110	1900
187	WQ1600-16-110	1600	16	980	110	400	400GAK	110	1900
188	WQ1750-15-110	1750	15	980	110	400	400GAK	110	1900
189	WQ2000-13-110	2000	13	740	110	400	400GAK	110	1900
190	WQ2500-12-110	2500	12	740	110	500	500GAK	125	2500
191	WQ3000-10-110	3000	10	740	110	500	500GAK	125	2500
192	WQ650-50-132	650	50	1470	132	250	250GAK	65	1950
193	WQ750-46-132	750	46	1470	132	250	250GAK	65	1950
194	WQ800-38-132	800	38	1470	132	250	250GAK	65	1950
195	WQ1000-30-132	1000	30	1470	132	250	250GAK	65	1950
196	WQ1300-24-132	1300	24	980	132	400	400GAK	110	2300
197	WQ1800-20-132	1800	20	980	132	400	400GAK	110	2300
198	WQ2000-16-132	2000	16	980	132	400	400GAK	110	2300
199	WQ2400-15-132	2400	15	740	132	400	400GAK	110	2600
200	WQ2500-13-132	2500	13	740	132	400	400GAK	125	2600
201	WQ3000-12-132	3000	12	740	132	500	500GAK	125	2600
202	WQ800-46-160	800	46	1470	160	250	250GAK	65	2800
203	WQ1200-35-160	1200	35	1470	160	300	300GAK	80	2800
204	WQ1300-30-160	1300	30	1470	160	300	300GAK	80	2800
205	WQ1600-25-160	1600	25	980	160	400	400GAK	110	2850
206	WQ2000-18-160	2000	18	980	160	400	400GAK	110	2850
207	WQ2500-14.5-160	2500	14.5	980	160	500	500GAK	125	3500
208	WQ3000-13-160	3000	13	980	160	500	500GAK	125	3500
209	WQ500-70-185	500	70	1470	185	300	200GAK(S)	60	3000
210	WQ700-55-185	700	55	1470	185	300	300GAK(S)	60	3000
211	WQ1000-40-185	1000	40	1470	185	300	300GAK	80	3000
212	WQ1200-37-185	1200	37	980	185	400	400GAK	110	3900
213	WQ1600-30-185	1600	30	980	185	400	400GAK	110	3900
214	WQ2000-20-185	2000	20	980	185	400	400GAK	110	3900
215	WQ2400-20-185	2400	20	980	185	500	500GAK	125	3900
216	WQ3000-14-185	3000	14	980	185	500	500GAK	125	3900
217	WQ4000-10-185	4000	10	740	185	600	600GAK	155	3900
218	WQ500-75-200	500	75	1470	200	300	200GAK(S)	60	2900
219	WQ600-70-200	600	70	1470	200	200	200GAK(S)	60	2900
220	WQ700-60-200	700	60	1470	200	300	300GAK(S)	80	2900
221	WQ1000-44-200	1000	44	1470	200	300	300GAK	80	2900
222	WQ1300-37-200	1300	37	980	200	400	400GAK	110	3100

Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed r/min	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
223	WQ1400-35-200	1400	35	980	200	400	400GAK	110	3100
224	WQ1600-35-200	1600	35	980	200	400	400GAK	110	3100
225	WQ1800-31-200	1800	31	980	200	400	400GAK	110	3100
226	WQ2500-22-200	2500	22	980	200	500	500GAK	125	3100
227	WQ3000-15-200	3000	15	980	200	500	500GAK	125	3100
228	WQ4000-11-200	4000	11	740	200	600	600GAK	155	4100
229	WQ650-80-220	650	80	1470	220	300	300GAK(S)	80	3100
230	WQ800-60-220	800	60	1470	220	300	300GAK(S)	80	3100
231	WQ1000-46-220	1000	46	1470	220	300	300GAK(S)	80	3100
232	WQ1300-40-220	1300	40	1470	220	400	400GAK	110	3100
233	WQ1600-38-220	1600	38	1470	220	400	400GAK	110	3100
234	WQ2000-24-220	2000	24	980	220	500	500GAK	125	3100
235	WQ2250-23-220	2250	23	980	220	500	500GAK	125	3100
236	WQ2800-20-220	2800	20	980	220	500	500GAK	125	3100
237	WQ3000-17-220	3000	17	980	220	500	500GAK	125	4200
238	WQ4200-15-220	4200	15	740	220	600	600GAK	155	4200
239	WQ600-80-250	600	80	1470	250	300	300GAK(S)	80	4250
240	WQ800-65-250	800	65	1470	250	300	300GAK(S)	80	4250
241	WQ1000-52-250	1000	52	1470	250	300	300GAK(S)	80	4250
242	WQ1600-40-250	1600	40	1470	250	400	400GAK	110	4250
243	WQ2000-28-250	2000	28	980	250	500	500GAK	125	4250
244	WQ2500-26-250	2500	26	980	250	500	500GAK	125	4250
245	WQ2900-22-250	2900	22	980	250	500	500GAK	125	4250
246	WQ3000-20-250	3000	20	980	250	500	500GAK	125	4250
247	WQ4600-15-250	4600	15	590	250	600	600GAK	155	5800
248	WQ6500-10-250	6500	10	495	250	800	800GAK	200	5800
250	WQ7000-9-250	7000	9	370	250	800	800GAK	200	8500
251	WQ800-80-280	800	80	1470	280	300	300GAK(S)	80	4500
252	WQ1000-65-280	1000	65	1470	280	300	300GAK(S)	80	4500
253	WQ1300-50-280	1300	50	1470	280	400	400GAK	110	4500
254	WQ1400-52-280	1400	52	1470	280	400	400GAK	110	4500
255	WQ1700-42-280	1700	42	1470	280	400	400GAK	110	4500
256	WQ2500-30-280	2500	30	980	280	500	500GAK	110	5200
257	WQ3000-22-280	3000	22	980	280	500	500GAK	125	5800
258	WQ3600-18-280	3600	18	740	280	600	600GAK	155	5800
259	WQ4800-16-280	4800	16	740	280	600	600GAK	155	5800
260	WQ1300-65-315	1300	65	1470	315	400	400GAK	110	4500

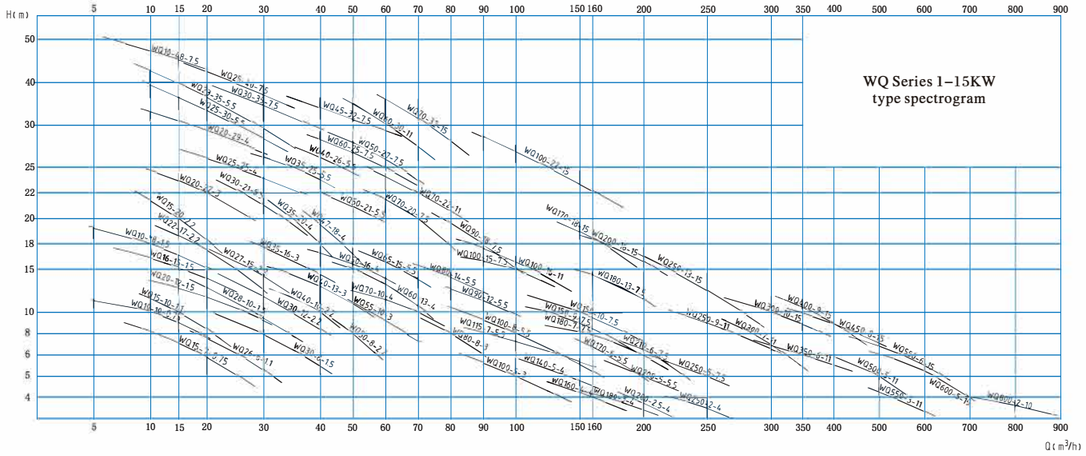
Technology performance data

No	Spec.&Model	Capacity Q(m^3/h)	Head H(m)	Speed r/min	Power P2(Kw)	Dia DM(Φmm)	Autocouping system	Through the particles (Φmm)	Weight (kg)
261	WQ1600-50-315	1600	50	1470	315	400	400GAK	110	4500
262	WQ1800-44-315	1800	44	1470	315	400	400GAK	110	4500
263	WQ2000-40-315	2000	40	1470	315	400	400GAK	110	4500
264	WQ2400-32-315	2400	32	980	315	400	400GAK	110	4800
265	WQ3000-25-315	3000	25	980	315	500	500GAK	125	4800
266	WQ3600-22-315	3600	22	980	315	600	600GAK	155	4800
267	WQ3800-20-315	3800	20	980	315	600	600GAK	155	4800
268	WQ4200-18-315	4200	18	980	315	600	600GAK	155	4800
269	WQ5000-15-315	5000	16	740	315	600	600GAK	155	5000
270	WQ900-80-355	900	80	1470	355	300	300GAK(S)	80	5000
271	WQ1400-65-355	1400	65	1470	355	400	400GAK	110	5000
272	WQ1700-50-355	1700	50	1470	355	400	400GAK	110	5000
273	WQ2000-44-355	2000	44	1470	355	400	400GAK	110	5000
274	WQ2200-40-355	2200	40	1470	355	500	500GAK	125	5000
275	WQ2400-35-355	2400	35	980	355	500	500GAK	125	5000
276	WQ3000-30-355	3000	30	980	355	500	500GAK	125	5000
277	WQ3500-25-355	3500	25	980	355	600	600GAK	155	5000
278	WQ4200-20-355	4200	20	740	355	600	600GAK	155	6500
279	WQ6000-14-355	6000	14	740	355	600	600GAK	155	6500
280	WQ1000-80-400	1000	80	1470	400	400	400GAK	110	6500
281	WQ1500-65-400	1500	65	980	400	400	400GAK	110	6500
282	WQ2000-50-400	2000	50	980	400	500	500GAK	125	6500
283	WQ2500-40-400	2500	40	980	400	500	500GAK	125	6500
284	WQ3200-35-400	3200	35	980	400	500	500GAK	125	6500
285	WQ3400-32-400	3400	32	980	400	600	600GAK	155	6000
286	WQ4500-24-400	4000	24	740	400	600	600GAK	155	6500
287	WQ6000-16-400	6000	16	740	400	600	600GAK	155	6500
288	WQ3600-33-420	3600	33	980	420	600	600GAK	155	6200
289	WQ3600-36-450	3600	36	980	450	600	600GAK	155	6200
290	WQ5500-20-450	5500	20	590	450	800	800GAK	200	8000
291	WQ6000-22-500	6000	22	590	500	800	800GAK	200	8200
292	WQ6500-23-560	6500	23	590	560	800	800GAK	200	8200
293	WQ4200-35-580	4200	35	590	560	600	600GAK	155	9800
294	WQ7200-25-630	7200	25	590	630	800	800GAK	155	9800
295	WQ7200-25-630	7200	25	590	630	800	800GAK	155	9800
296	WQ7200-25-630	7200	25	590	630	800	800GAK	155	9800

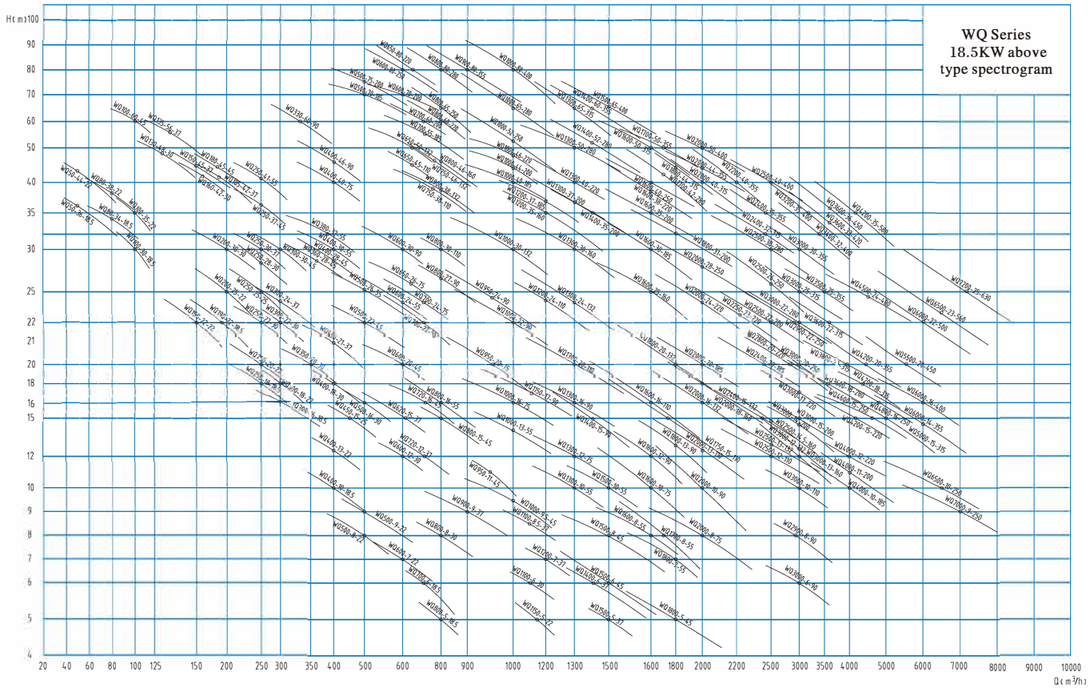
Special design can be made according to customer needs

WQ Type performance curve

WQ Series 1–15KW type spectrogram

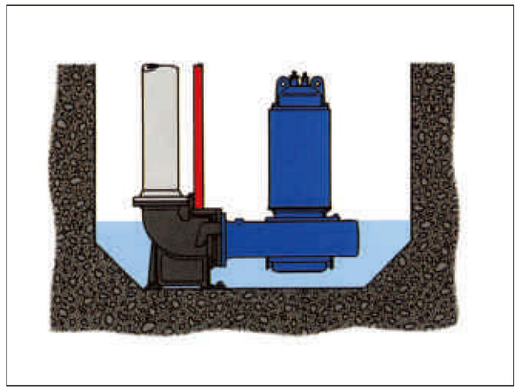


WQ Series 18.5KW above type spectrogram



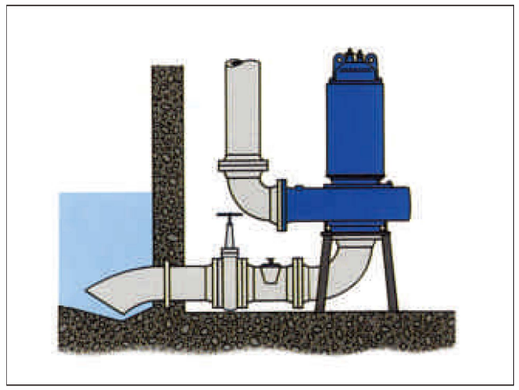
The performance curve is for reference, consult the manufacturer for details

WQ Type installation mode



Fixed wet type mounting

Adopt Lanshen dual rail automatic coupling device, the pump can slide to the mounting position on base along this dual rail and seal the outlet connection point automatically.

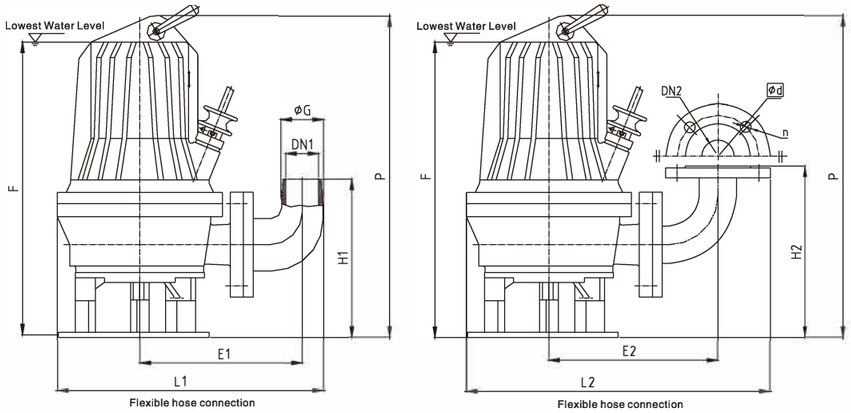


Fixed dry type mounting

Install the pump base on a support bracket in fixed dry type, which is suitable for the pumping station that has individual collecting pool or water tank, saves space and mounting cost, really is the ideal selection for recon -structing old pumping stations that have major axis pumps.

Flexible pipe installation dimension

Model	DN1	DN2	G	n	d	L1	L2	H1	H2	E1	E2	F	P
WQ10-10-1	40	50	52	4-Φ18	125	346	413	205	260	185	235	440	475
WQ15-7-1	40	50	52	4-Φ18	125	346	413	205	260	185	235	440	475
WQ10-15-1.5	40	50	52	4-Φ18	125	346	413	205	260	185	235	440	475
WQ15-10-1.5	40	50	52	4-Φ18	125	346	413	205	260	185	235	440	475
WQ25-8-1.5	40	50	52	4-Φ18	125	346	413	205	260	185	235	440	475
WQ15-20-2.2	50	50	65	4-Φ18	125	405	435	250	280	245	250	460	500
WQ25-14-2.2	50	50	65	4-Φ18	125	405	435	250	280	245	250	460	500
WQ40-10-2.2	50	50	65	4-Φ18	125	405	435	250	280	245	250	460	500
WQ20-22-3	50	50	65	4-Φ18	125	405	435	250	280	245	250	460	500
WQ30-16-3	50	50	65	4-Φ18	125	405	435	250	280	245	250	460	500
WQ40-12-3	50	50	65	4-Φ18	125	405	435	250	280	245	250	460	500
WQ20-25-4	50	80	65	8-Φ18	160	465	575	345	395	290	300	675	725
WQ30-18-4	50	80	65	8-Φ18	160	465	575	345	395	290	300	675	725
WQ40-15-4	50	80	65	8-Φ18	160	465	575	345	395	290	300	675	725
WQ60-13-4	50	80	65	8-Φ18	160	465	575	345	395	290	300	675	725
WQ160-4-4	125	150	152	8-Φ22	240	725	755	505	480	440	455	850	840
WQ180-3-4	125	150	152	8-Φ22	240	700	730	460	430	435	450	790	840
WQ250-2-4	125	150	152	8-Φ22	240	700	730	460	430	435	450	790	840
WQ25-30-5.5	50	50	65	4-Φ18	125	640	660	300	280	400	400	855	915
WQ30-21-5.5	100	100	127	8-Φ18	180	750	800	480	435	460	460	855	915
WQ45-18-5.5	100	100	127	8-Φ18	180	750	800	480	435	460	460	855	915
WQ65-15-5.5	100	100	127	8-Φ18	180	750	800	480	435	460	460	855	915
WQ70-14-5.5	100	100	127	8-Φ18	180	750	800	480	435	460	460	855	915
WQ100-8-5.5	125	150	152	8-Φ22	240	725	755	505	480	440	455	850	900
WQ200-5-5.5	165	200	202	8-Φ22	295	1000	1165	690	660	630	730	920	980
WQ20-40-7.5	60	80	77	8-Φ18	160	460	560	300	280	280	320	855	915
WQ45-30-7.5	100	100	127	8-Φ18	180	750	800	480	435	460	460	855	915
WQ50-27-7.5	100	100	127	8-Φ18	180	750	800	480	435	460	460	855	915
WQ70-20-7.5	100	100	127	8-Φ18	180	750	800	480	435	460	460	855	915
WQ100-13-7.5	100	100	127	8-Φ18	180	780	830	480	435	440	440	855	915
WQ150-8-7.5	125	150	152	8-Φ22	240	725	755	505	480	440	455	850	900
WQ210-6-7.5	165	200	202	8-Φ22	295	1000	1165	690	660	630	730	920	980
WQ45-32-11	100	100	127	8-Φ18	180	830	880	530	480	510	515	1000	1200
WQ70-22-11	100	100	127	8-Φ18	180	830	880	530	480	510	515	1000	1200
WQ100-16-11	125	150	152	8-Φ22	240	850	950	550	555	550	600	1050	1250
WQ150-10-11	125	150	152	8-Φ22	240	850	950	550	555	550	600	1050	1250
WQ500-5-11	——	250	——	12-Φ22	350	——	1160	——	800	——	860	1150	1350
WQ70-32-15	100	100	127	8-Φ18	180	830	880	530	480	510	515	1000	1200
WQ100-22-15	100	100	127	8-Φ18	180	830	880	530	480	510	515	1000	1200
WQ150-17-15	125	150	152	8-Φ22	240	850	950	550	555	550	600	1050	1250
WQ250-13-15	125	150	152	8-Φ22	240	850	950	550	555	550	600	1050	1250
WQ550-6-15	——	250	——	12-Φ22	350	——	1160	——	800	——	860	1150	1350

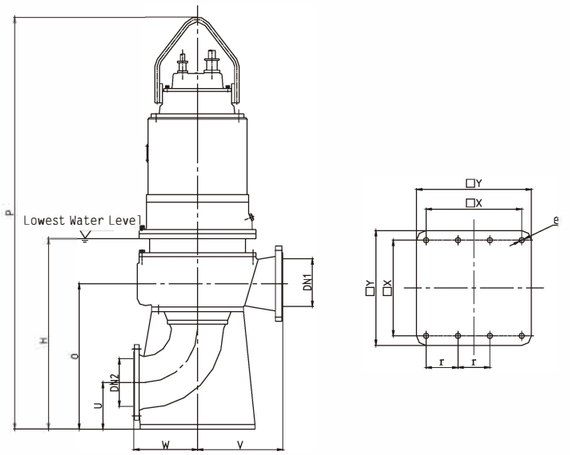


Fixed dry type mounting

Caliber	DN250		DN300		DN400	
Frame	M280A(M280G)	M315	M250A(M250G)	M315	M250A(M250G)	M280A(M280G)
Minimum pool mouth size	1700×1300	1700x1300	1600x1200	1700x1300	1900x1400	1900×1400
O*	853	853	880	835	950	1050
H*	1100	1100	1100	1000	1100	1100
P*	2800	3300	2700	3200	2900	3100
U*	295	295	295	295	320	350
V*	523	523	525	570	650	700
W*	360	360	458	520	478	600
X*	680	680	680	680	680	900
Y*	800	800	800	800	800	1000
r*	0	0	0	0	240	300
e*	4-Φ32	4-Φ32	4-Φ32	4-Φ32	8-Φ32	8-Φ32
DN1	250	250	300	300	400	400
DN2	250	250	300	300	400	400

Caliber	DN400		DN500		DN600
Frame	M315	M355	M315	M355	M355
Minimum pool mouth size	1900×1400	2250x1700	2150x1700	2250x1700	Refer to our company's detailed drawings
O*	1050	1100	1160	1100	
H*	1300	1400	1500	1500	
P*	3400	3700	3600	3700	
U*	350	450	450	450	
V*	700	870	800	750	
W*	600	650	650	650	
X*	900	1200	1200	1200	
Y*	1000	1400	1400	1400	
r*	300	400	400	400	
e*	8-Φ32	8-Φ34	8-Φ34	8-Φ34	
DN1	400	400	500	500	
DN2	400	400	500	500	

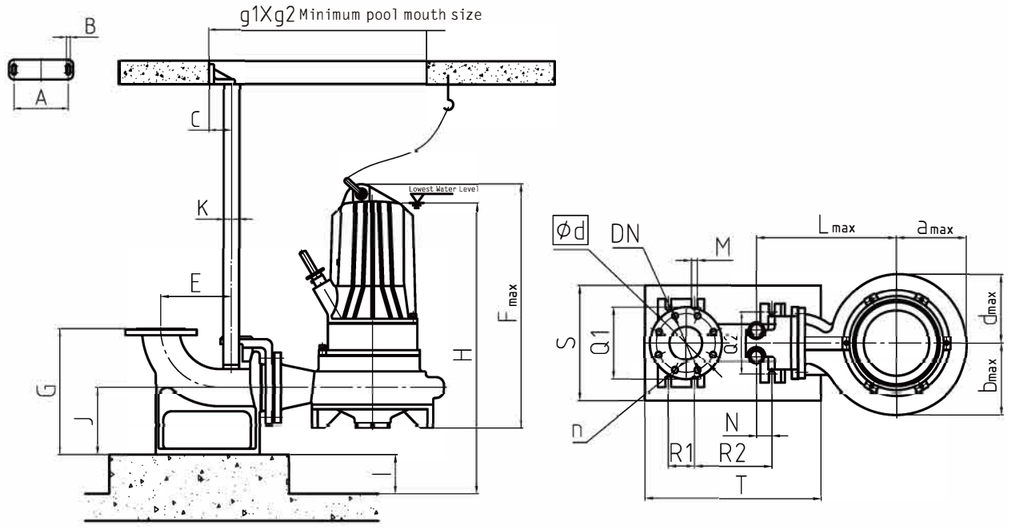
This dimension is only for reference, please confirm it when placing the order.



WQ1~15KW auto coupling installation dimensions table

Self-couple	50GAK	80GAK	80GAK (A)	100GAK	150GAK	200GAK	250GAK	400GAK
Minimum pool mouth size	800x700	900x700	1100x800	1150x900	1200x900	1300x950	1500x1150	1900 x 1400
DN	50	80	80	100	150	200	250	400
A	166	166	210	160	160	160	230	200
B	2-12	2-12	2-12	2-12	2-12	2-12	2-14	2-14
C	70	70	105	80	80	85	125	155
E	144	168	235	215	245	275	385	700
Fmax	860	1100	1100	1500	1500	1500	1200	1600
Lmax	354	360	267	479	498	565	680	710
amax	200	180	165	260	225	285	325	455
bmax	205	180	165	280	273	320	360	520
dmax	175	180	165	225	225	245	320	370
G	240	275	300	385	435	535	675	855
H	850	1000	1000	1300	1400	1400	1400	1800
I	120	120	120	120	120	120	230	400
J	150	150	150	205	235	305	352	455
K	Φ33.5	Φ33.5	Φ60	Φ48	Φ48	Φ48	Φ60	Φ89
M	4-18	4-18	4-16	4-18	4-20	4-20	4-26	6-28
N	-20	42	-26	47	57	42	85	-67
Q1	140	200	300	220	250	370	500	640
Q2	140	140	220	190	200	330	500	640
R1	——	——	——	——	——	——	——	265
R2	102	172	255	237	270	330	470	550
S	450	450	450	450	650	680	800	900
T	550	550	550	550	850	900	1200	1400
n	4-Φ18	8-Φ18	8-Φ18	8-Φ18	8-Φ22	8-Φ22	12-Φ22	16-Φ26
Φd	Φ125	Φ160	Φ160	Φ180	Φ240	Φ295	Φ350	Φ515

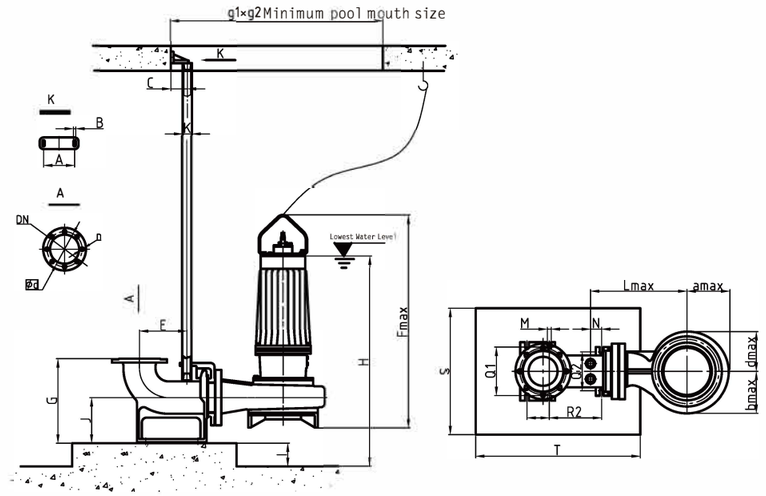
This dimension is only for reference, please confirm it when placing the order.



M180A(M160G)~M225A auto coupling installation dimensions table

Caliber	DN100	DN150		DN200		DN250		DN300
Frame	M180A(M160G)	M180A(M160G)	M225A	M180A(M160G)	M225A	M180A(M160G)	M225A	M225A
Self-couple	100GAK	150GAK		200GAK		250GAK		300GAK
Minimum pool mouth size	1350x900	1350x900	1400x900	1300x950	1400x1000	1500x1150	1500x1150	1600x1200
DN	100	150	150	200	200	250	250	300
A	160	160	160	160	160	230	230	230
B	2-12	2-12	2-12	2-12	2-12	2-14	2-14	2-12
C	80	80	80	80	80	80	125	140
E	215	245	245	275	275	385	385	440
Fmax	1500	1500	1800	1500	2000	1500	2000	2000
Lmax	485	570	570	570	540	680	680	720
amax	260	245	305	270	310	310	310	375
bmax	280	245	305	300	330	360	360	425
dmax	250	245	305	250	310	310	310	315
G	385	435	435	535	535	675	675	720
H	1300	1300	1500	1400	1600	1000	1600	1700
I	120	230	230	180	230	230	230	250
J	205	235	235	305	305	352	352	386
K	Φ48	Φ48	Φ48	Φ48	Φ48	Φ60	Φ60	Φ60
M	4-18	4-20	4-20	4-20	4-20	4-26	4-26	6-28
N	47	57	57	42	42	85	85	75
Q1	220	250	250	370	370	500	500	500
Q2	190	200	200	330	330	500	500	500
R1	——	——	——	——	——	——	——	140
R2	237	270	270	330	330	470	470	450
S	450	650	650	680	680	800	800	880
T	550	850	850	900	900	1200	1200	1300
n	8-Φ18	8-Φ22	8-Φ22	8-Φ22	8-Φ22	12-Φ22	12-Φ22	12-Φ22
Φd	Φ180	Φ240	Φ240	Φ295	Φ295	Φ350	Φ350	Φ400

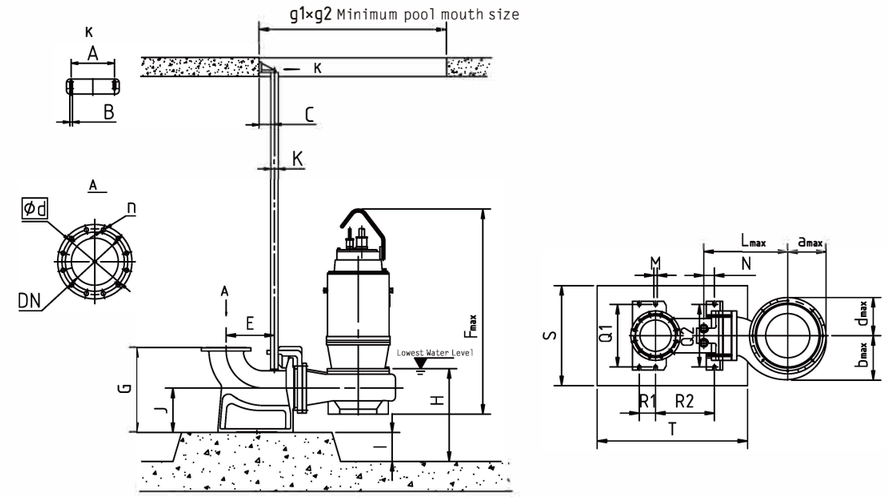
This dimension is only for reference, please confirm it when placing the order.



M250A(M250G)~M280A(M280G) auto coupling installation dimensions table

Caliber	DN250	DN300	DN400	
Frame	M280A(M280G)	M250A(M250G)	M250A(M250G)	M280A(M280G)
Self-couple	250GAK	300GAK	400GAK	
Minimum pool mouth size	1700×1300	1600×1200	1900×1400	1900×1400
DN	250	300	400	400
A	230	230	280	280
B	2-14	2-12	2-14	2-14
C	125	140	155	155
E	385	440	700	700
Fmax	2900	2300	2200	2400
Lmax	650	770	740	850
amax	370	375	480	450
bmax	450	425	540	560
dmax	310	375	385	355
G	675	720	855	855
H	1200	1100	1200	1200
I	230	250	400	400
J	352	386	455	455
K	Φ60	Φ60	Φ89	Φ89
M	4-26	6-28	6-28	6-28
N	85	75	-67	-67
Q1	500	500	640	640
Q2	500	500	640	640
R1	——	140	265	265
R2	470	450	550	550
S	800	880	900	900
T	1200	1300	1400	1400
n	12-Φ22	12-Φ22	16-Φ26	16-Φ26
Φd	Φ350	Φ400	Φ515	Φ515

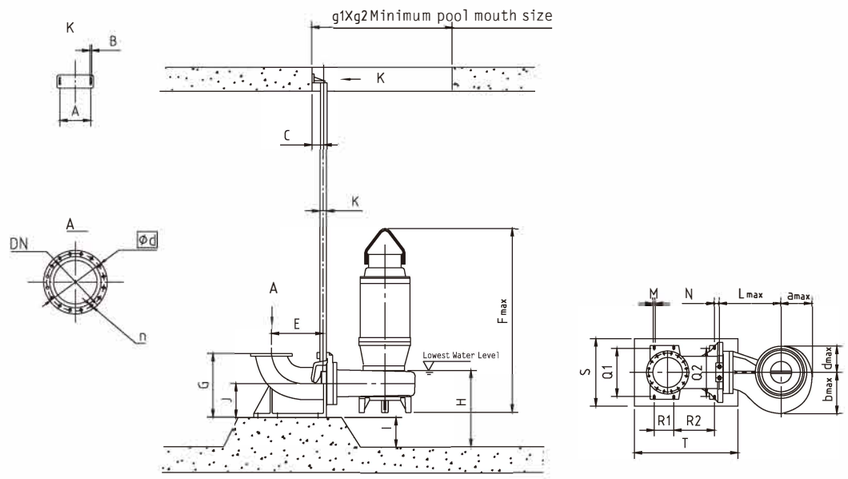
This dimension is only for feference, please confirm it when placing the order.



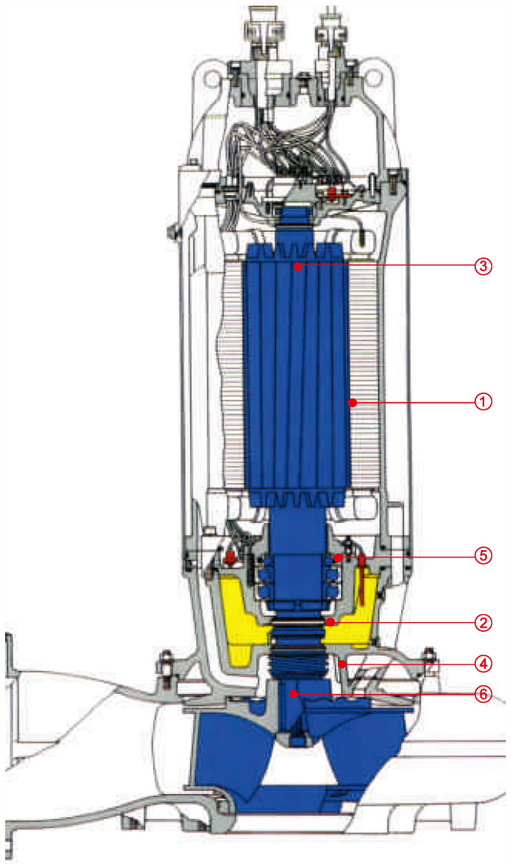
M315~M355 auto coupling installation dimensions table

Caliber	DN250	DN300	DN400		DN500		
Frame	M315	M315	M315	M355	M315	M355	
Self-couple	200GAK	300GAK	400GAK		500GAK		
Minimum pool mouth size	1700×1300	1800×1300	1900×1400	1900×1400	2250×1700	2250×1700	
DN	250	300	400	400	500	500	
A	230	230	280	280	280	280	
B	2-14	2-12	2-14	2-14	2-14	2-14	
C	125	140	155	155	155	155	
E	385	440	700	700	739	739	
Fmax	2900	3000	3100	3200	3100	3200	
Lmax	650	980	850	1035	955	916	
amax	370	455	450	640	650	555	
bmax	450	500	560	705	690	630	
dmax	310	400	355	525	650	480	
G	675	720	855	855	920	920	
H	1200	1200	1200	1200	1300	1300	200GAK(S)
I	230	400	400	450	450	500	300GAK(S)
J	352	386	455	455	455	455	和600GAK
K	Φ60	Φ60	Φ89	Φ89	Φ89	Φ89	
M	4-26	6-28	6-28	6-28	6-28	6-28	
N	-85	-75	67	67	94	94	
Q1	500	500	640	640	640	640	
Q2	500	500	640	640	640	640	
R1	——	140	265	265	265	265	
R2	470	450	550	550	550	550	
S	800	880	900	900	1000	1000	
T	1200	1300	1400	1400	1400	1400	
n	12-Φ22	12-Φ22	16-Φ26	16-Φ26	20-Φ26	20-Φ26	
Φd	Φ350	Φ400	Φ515	Φ515	Φ620	Φ620	

This dimension is only for feference, please confirm it when placing the order.



Monitoring and control system

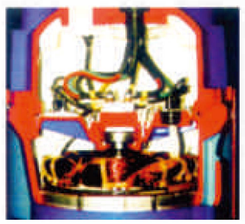


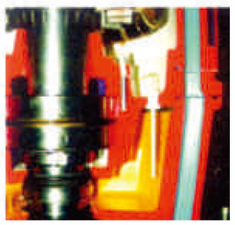
TCSsystem with temperature sensor

① Stator
② Upper bearing
③ Lower bearing

Disystem with temperature sensor

Oil chamber
Base of motor room
Connection chamber





The successful experience of these years has approved that it is able to get reliable hermetical seal monitoring and temperature monitoring by 24h automatic monitoring system.

The Lanshen submersible pumps are designed for long-term running, with durable monitoring system, especially suitable for occasions that require continuous service.

Lanshen provides optimum sealing system and temperature control safety system, which outputs fault and wear information, ovoid catastrophic failure of equipment.

TCS motor (temperature control) equipment

Motor monitoring

Each item of motor is equipped with temperature sensor. When the motor is overheated, it will send out a warning and cut off the power supply automatically.

Bearing monitoring

The bearing is equipped with temperature sensor. When the motor bearing is overheated, it will send out a warning and cut off the power supply automatically.

DI (hermetical seal) device

Hermetical seal device monitors if there is water immerge in the oil chamber from axial seal point. Besides, the motor chamber and connection chamber of motors of M132 above are equipped with individual sensors.

Once there is leakage, DI sensor will send out early-warning, and enable the operator to overhaul in time, this protects the machine against further breakage.

Lanshen Company can provide monitoring unit to equip the control panel at request. The sensor also can provide continuous temperature record.

To make the water pump operate reliably and safely

Our company adopts the special "Lanshen LSK-1 series" water pump and water treatment equipment special control cabinet. Different from other ordinary electric control cabinets, it is a necessary selection for ensuring long-tome, reliable and safe operation of auxiliary pumps and equipment. It is elaborately designed by integrating years of experience of Lanshen and adopting internationally advanced control technology. It has been widely used in many famous projects in the country. In addition to regular electric protection functions for short circuit, phase failure, phase loss and overloading, it is also provided with special protection functions: protection against oil chamber water leakage, motor chamber water leakage, junction box water leakage, motor stator winding overheating, bearing over-temperature, dry operation and others. Meanwhile, it is also provided with Lanshen's special technical patents: pump motor dew resistant automatic dehumidifying and controlling functions that can prevent creepage inside the motor and ensure motor insulation.

(I) Electric control cabinet

1. Usage

To automatically protect the water pump (protection against overloading, phase loss, short circuit, leakage, over-temperature, dehumidifying and etc.), realize unattended and automatic operation and signal output of the pump). Including two modes such as manual control and automatic control.

2. Application range

a. Ambient temperature 5~40℃ (special working media can meet design requirements through technology guarantee).

b. Relative humidity of air shall not exceed 90%.

c. Locations without the danger of explosion and the media shall not contain any gas or conducting dust that may corrode metal and damage insulation.

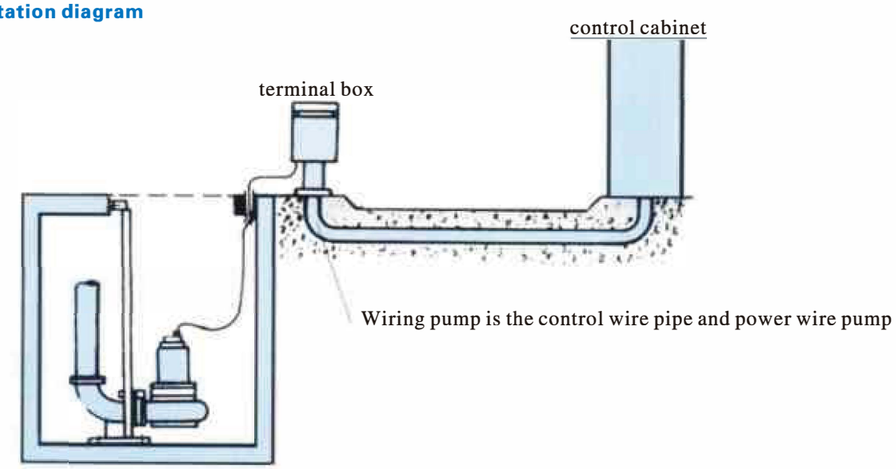
3. Terminal box

Each set of water pump system can be equipped with a middle terminal box for the middle connection of water pump and control cabinet. See the schematic diagram for details.

(II) Liquid level switch

The liquid level switch is flexible and convenient with reliable signals. It is used for water control in the pump station and can automatically control the water pump according to the changes of water level.

Typical pump station diagram



Notes

1. All signal wires can use one embedded wire tube.
2. The size of the pre-embedded tube for the power line depends on the diameter and quantity of cables supplied.
3. Different tubes shall be embedded for power line and signal wires and cannot be mixed.
4. DC signals can be used between the terminal box and control cabinet, so as to realize long distance transportation without attenuation.

Failures causes and trobleshooting

Failure	Possible causes	Troubleshooting
Fall of flow or head	1、Pump rotates 2、The device head is not in conformity with rated head. 3、The pumping medium goes through the bypass. 4、The drainage pipe leaks. 5、The part of drainage pipe may be blocked by deposition. 6、The flowing passage of pump is blocked. 7、The impeller and sealing ring are worn.	1、Cut off main power of control cabinet, exchange any two phases power lines. 2、Calculate device head again to determine pump model. 3、Check the water delivery pipeline 4、Find the leakage location and maintain 5、Check the pipeline, clean or change it if necessary. 6、Hoist and clean pump, including the one is put in the filter net. 7、Hoist the pump, and provide it with sealing ring according to actual size of impeller ring.
No flow	1、Air is blocked 2、Check the discharge valve 3、Pump rotates CCW. 4、Inlet or impeller is jammed. 5、The drainage pipe is jammed.	1、（1）Open and close the valve several times continuously. （2）Start/stop pump several times, every restart time is not less than 10min. （3）Check and determine whether exhaust unit is required with different installation methods. 2、（1）Open the closed valve （2）If it is installed inversely, please correct. 3、Cut off main power of control cabinet and exchange any two phases power lines. 4、Hoist pump and clean the inlet or impeller 5、Clean the drainage pipeline
Noise or vibration in running	1、The base of system is installed not firmly or the pump is mounted not steadily. 2、Bearing is worn. 3、The impeller is slack or falls off. 4、The impeller is wrapped by some foreign material or blocked. 5、The part of impeller is broken by foreign material or worn. 6、The ring of impeller rubs against sealing ring. 7、The pump runs not in the running range.	1、Firm the base and fix the pump. 2、Change the bearing 3、Fasten the impeller 4、Clean the flow way 5、Change the impeller 6、Check the impeller and correct the parallel degree of rotor axle. 7、Check the running parameter of pump.

Failures causes and trobleshooting

Failure	Possible causes	Troubleshooting
Pump not able to start	1、No power supply 2、The electric appliance fails in running. 3、The winding, joint or cable occur open circuit. 4、Pump is blocked. 5、The ball float has fault. 6、Phase failure 7、The control cabinet has fault	1、Check whether the control cabinet is energized. 2、Change the fault electrical appliance. 3、Check with the multimeter, if the open circuit is proved, please check the winding, joint and cable. 4、Cut off power. Move the pump out from the sewage tank, clear away the obstacle and perform trial use of the pump before resetting. 5、Short the float switch to check whether the pump starts. If the pump can start, please examine the float switch. 6、Check the circuit 7、Clear away the fault.
Pump stopping abnormally in running	1、Low voltage 2、Over high voltage 3、Break the power 4、Control cabinet occurs fault 5、Protective device operates 6、Phase failure 7、Use at over rated current for a long time 8、Slurries or other depositions are banked on the cover plate of enclosure base	1、Check the voltage of control cabinet, if the voltage is too low, the inverter may put out of commission temporarily, so please adjust it 2、Install a transformer, adjust the voltage to specified range 3、Check the fuse or circuit breaker 4、Check the control cabinet for repair or change 5、Contact our after-sale service for maintenance 6、Check circuit 7、Use with the actual specified value of water pump 8、Clean the water pump and sewage tank, please refer to the relevant part in the installation manual
Pump frequently starting and stopping or out of control	1、Over short upper and lower distance of float switch 2、The check valve is of fault, it can't return to enable the liquid to back flow to the sewage tank. 3、The float switch is out of control. 4、The ball float is blocked at the position of working switch.	1、Readjust the upper and lower distance of float switch to extend the running time. 2、Check and maintain 3、Check the float switch, change it if necessary 4、Unfasten the float switch, change the position if necessary

To adjust equipment shall be approved by us!