



TORONTECH™

CATALOGUE

2014

TTAAO-Series of Under Liquid Sewage Pumps



PRODUCT BROCHURE

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PUMPS

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Torontech™ is a leading North American based international manufacturer and supplier of pumps, pipes, valves & actuators. The Torontech™ group has established an extensive network in the USA as well as international markets and remains to be a preferred vendor of choice supplying quality pumps for today's leading corporations.

Creating comprehensive solutions for our clients has always been the core value of our company. From sales, to order execution, and post-sales support; every staff member is here to assist you in selecting the solution that best suits your unique requirements and budget.

The Torontech™ group offers a complete range of quality pumps that are ANSI to ISO approved and engineered to last, ensuring your company continuous production without interruptions.

Since the beginning, we have succeeded in only offering quality manufactured pumps that are currently being used worldwide. We offer the best value for your investment and provide world-class support.

Due to the demand for our quality pumps, Torontech™ has experienced explosive growth primarily in the oil & gas, water filtration and chemical refinery industries.

We offer an extensive range of solutions and products for oil & gas projects, refineries, petrochemical plants, and marine applications. Our main class of pumps includes API (American Petroleum Institute) Standard, Mining, Water & Sewage and Firefighting applications. The pumps are offered in various configurations depending on orientation of the pump, required head and type of fuel used for operation.



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TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

Product outline

The second-generation TAAO-YW(P) series under-liquid sewage pump is a new and patented product latest developed by our company, specially designed for transporting various sewages under harsh working conditions.

TAAO-YW series under-liquid sewage pump not only has all the superior performance of the WQ series submersible sewage pump but also greatly opens up applicable working range due to its unique form of installation.

Suitable range

Suitable for steel industry, power plant, coal processing industry, mining, hospital, municipal, chemical industry, pharmaceutical, building water supply, sea-water transportation, drainage of industrial sewage with grains and fibres, drainage of rain water and supply of pure water.

Conditions for use

The medium temperature not over 50°C;
The medium density $<1.2 \times 10^3 \text{ kg/m}^3$, need a notice at order for $>1.2 \times 10^3 \text{ kg/m}^3$;
The medium's PH value between 5-11.

Advantages of products

The second-generation TAAO-YW (P) series under-liquid sewage pump is designed by taking long durability, easy operation, stability, reliability and free of maintenance as the targets. It can offer the following merits:

1. High Efficiency and Non-clogging
The uniquely designed single, double-geat impeller, opening model/double leaf model impeller is highly effective without clogging. The material selection for the impeller is upon the media being transported or to make sure of the excellent hydraulic performance and working life in the transportation of the corrosive and abrasive media containing suspended grains and long fibres. The geat is wide and smooth and is suitable to transport the solid grain of a diameter up to 50% of the pump aperture. The motor and cable cannot be placed under the water. The temperature of the sewage should be no higher than 80°C.



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2. Easy operation, long durability

The impeller is submerged in water and easy to start. An automatic liquid-level control cabinet can be fitted with pump if required by users to get a control of the liquid-level when starting and stopping the pump. The pump has a solid maintenance-free design, good rigidity pump shaft and a fully-closed roller bearing. The pre-injected high-temperature withstanding lubricating grease makes the injection during use not necessary. Both bearing and pump's main shaft system are completely isolated by the shaft seal system and will not contact with the medium being transported to ensure the designed operation life of the bearing. Double mechanical seals are used as the mechanical seal to provide a double protection and the frictional secondary seal is a spiral seal made of anti-corrosive sintered tungsten carbide or silicon carbide, which has a special structure and can be continuously operated without leakage. O-seal ring is used as the static seal, it settles the problem of leakage and greatly enhances the life span of the pump.

3. Stable, durable without vibration

The pump is vertically structured and all the drive units

(motor stand, clutch, drive shaft, connecting stand, and bearing) are modular designed. Both pump casing and impeller can be placed under liquid by 0.5-10m and the motor above the liquid surface. Via connection with the drive unit, the non-clogging impeller can be driven directly to offer a stable operation with minimum vibration. At the pump's inlet a suck-in barrel is set, the exquisite design of it makes the liquid sucking level as deep as possible without clogging while offering a good anti-twine sewage-removal property. The integral structure of the pump is designed compact, stable, durable and easily mountable. The pump can be used with common Y series motor. If fitted with Y, Y2 series outdoor-type motor, pump house can be avoided. The motor can be mounted on the ground which will make operation, overhaul and maintenance work easier. An elastic cylindrical-pin clutch is used to link both main shaft and drive shaft, which has the margin compensation for the relative offset between both shafts and the general shock-reduction and buffering performance so as to make the pump stably run without vibration and with low noise. The under-liquid depth can be made completely according to the requirement of users.

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

An elastic cylindrical-pin clutch is used to link both main shaft and drive shaft, which has the margin compensation for the relative offset between both shafts and the general shock-reduction and buffering performance so as to make the pump stably run without vibration and with low noise. The under-liquid depth can be made completely according to the requirement of users.

Main parts'materials of the ordinary pumps

Part	Material
Pump casing,impeller,pump cover,connecting seat,bearing gland	HT200
Shaft	2Cr13
Connecting stand,scoop-pipe	Q235
Suck-in barrel	Q235
Mechanical seal	Silicon carbide/tungsten carbide
Fastener	Stainless steel

TTAAO- Model meaning

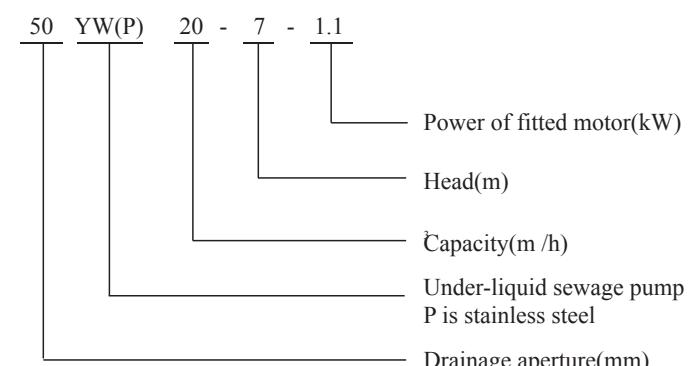
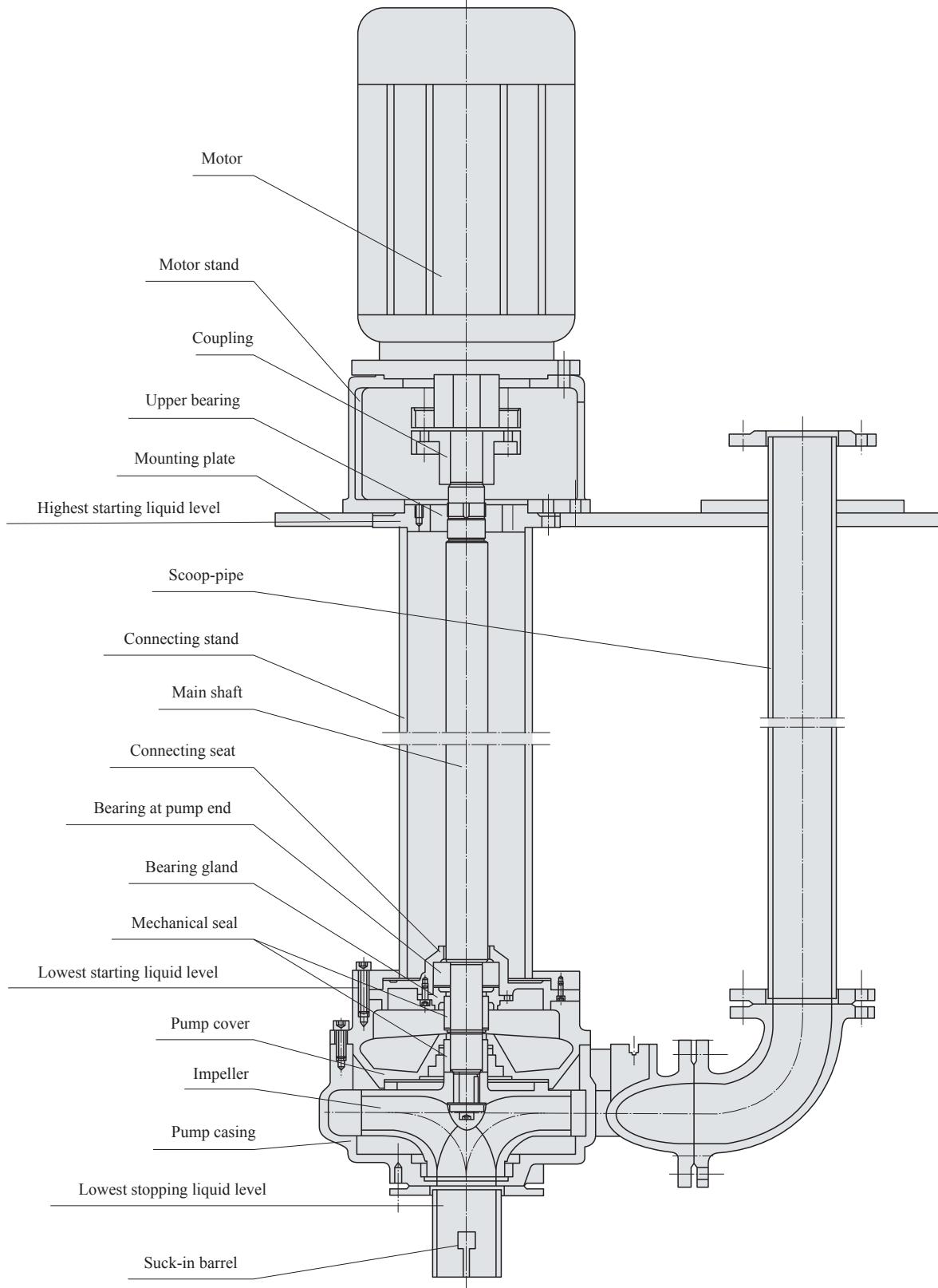


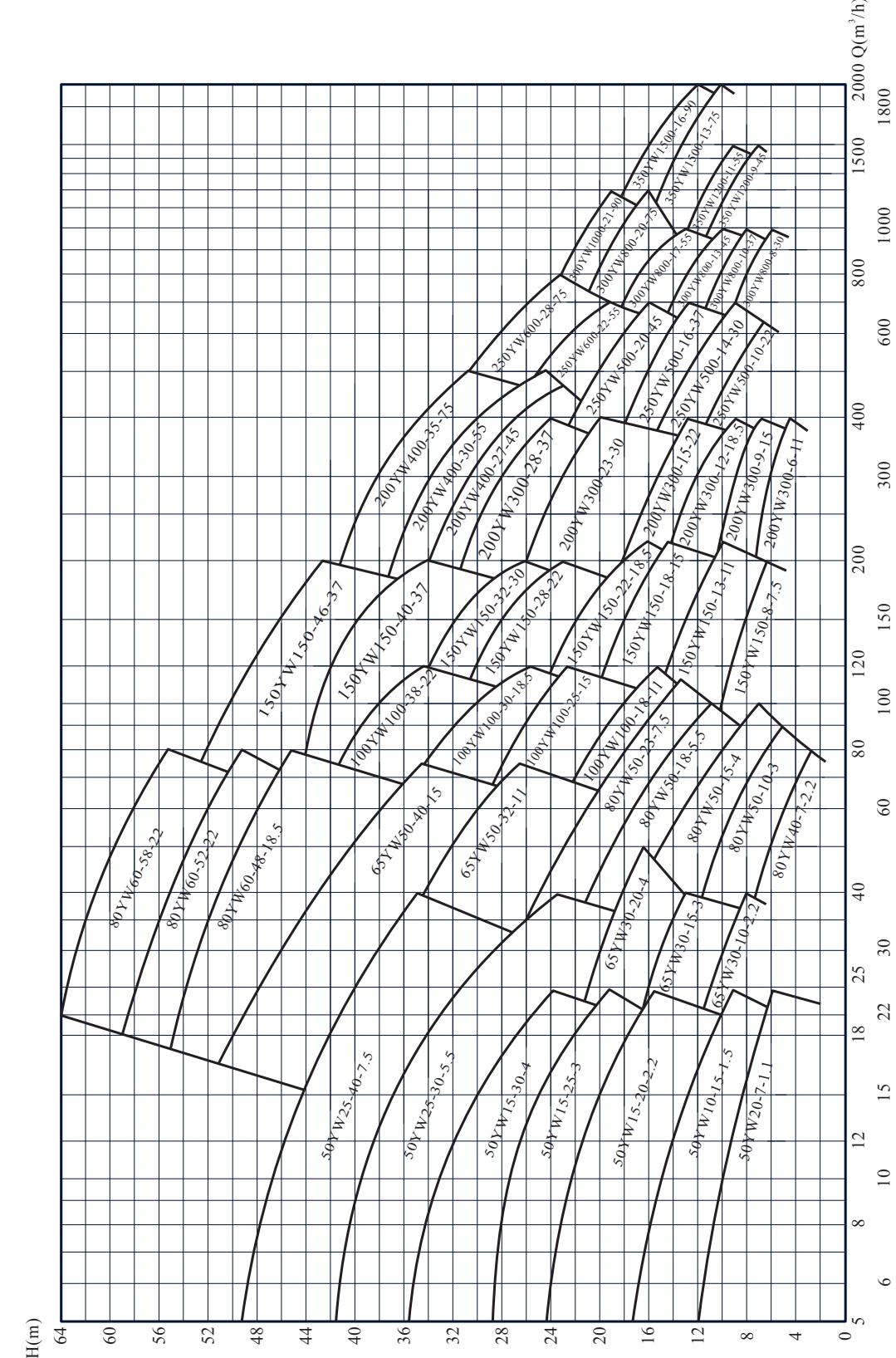


Table of TAAO-YW(P) series under-liquid sewage pump's structure drawing



TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

Atlas of style





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TTAAO-YW series pump performance

No.	Type	Outlet diameter (mm)	Capacity (m³/h)	Head (m)	Speed (r/min)	Power (kW)
1	25YW8-10-0.75	25	6 8 12	12 10 7	2840	0.75
2	32YW8-12-1.1	32	6 8 12	14 12 9	2840	1.1
3	50YW20-7-1.1	50	15 20 25	8 7 6	2840	1.1
4	50YW10-15-1.5	50	8 10 15	16 15 13	2840	1.5
5	50YW15-20-2.2	50	10 15 25	22 20 16	2840	2.2
6	50YW15-25-3	50	10 15 25	27 25 19	2880	3
7	50YW15-30-4	50	10 15 25	33 30 24	2880	4
8	50YW25-30-5.5	50	20 25 40	33 30 23	2900	5.5
9	50YW25-40-7.5	50	20 25 40	42 40 35	2900	7.5
10	65YW30-10-2.2	65	20 30 40	12 10 8	1420	2.2
11	65YW30-15-3	65	20 30 40	17 15 13	1420	3
12	65YW30-20-4	65	20 30 45	22 20 17	2880	4
13	65YW30-30-5.5	65	20 30 45	32 30 22	2900	5.5
14	65YW30-35-7.5	65	20 30 45	37 35 30	2900	7.5
15	65YW50-32-11	65	40 50 75	34 32 27	2900	11
16	65YW50-40-15	65	40 50 75	43 40 35	2900	15
17	80YW40-7-2.2	80	30 40 60	8 7 5	1420	2.2
18	80YW50-10-3	80	40 50 75	12 10 7	1420	3

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

TTAAO-YW series pump performance

No.	Type	Outlet diameter (mm)	Capacity (m³/h)	Head (m)	Speed (r/min)	Power (kW)
19	80YW50-15-4	80	40 50 75	17 15 11	1440	4
20	80YW50-18-5.5	80	40 50 75	21 18 15	1440	5.5
21	80YW50-23-7.5	80	40 50 75	25 23 19	1440	7.5
22	80YW60-48-18.5	80	50 60 80	51 48 45	2900	18.5
23	80YW60-52-22	80	40 60 80	55 52 49	2900	22
24	80YW60-58-22	80	40 60 80	61 58 55	2900	22
25	100YW80-7-3	100	65 80 120	8 7 5	1440	3
26	100YW80-10-4	100	65 80 120	12 10 7	1440	4
27	100YW80-13-5.5	100	65 80 120	15 13 10	1440	5.5
28	100YW80-18-7.5	100	65 80 120	21 18 13	1440	7.5
29	100YW100-18-11	100	80 100 120	21 18 15	2900	11
30	100YW100-25-15	100	80 100 120	27 25 23	2900	15
31	100YW100-30-18.5	100	80 100 120	34 30 26	2900	18.5
32	100YW100-38-22	100	80 100 120	41 38 34	2900	22
33	150YW150-8-7.5	150	100 150 200	9 7 5	1460	7.5
34	150YW150-7-5.5	150	100 150 200	9 7 5	1440	5.5
35	150YW150-13-11	150	120 150 220	15 13 10	1460	11
36	150YW150-18-15	150	120 150 200	20 18 15	1460	15



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TTAAO-YW series pump performance

No.	Type	Outlet diameter (mm)	Capacity (m³/h)	Head (m)	Speed (r/min)	Power (kW)
37	150YW150-22-18.5	150	120 150 220	24 22 16	1460	18.5
38	150YW150-28-22	150	120 150 200	30 28 23	1460	22
39	150YW150-32-30	150	120 150 200	34 32 26	1460	30
40	150YW150-40-37	150	80 150 200	44 40 34	1460	37
41	150YW150-46-37	150	80 150 200	52 46 43	1460	37
42	150YW150-50-45	150	100 150 200	52 50 47	1470	45
43	150YW100-60-55	150	80 100 150	62 60 56	1470	55
44	200YW300-6-11	200	200 300 400	7 6 5	1460	11
45	200YW300-9-15	200	220 300 400	10 9 7	1460	15
46	200YW300-12-18.5	200	220 300 400	14 12 9	1470	18.5
47	200YW300-15-22	200	200 300 400	18 15 13	1470	22
48	200YW300-20-30	200	200 300 400	23 20 17	980	30
49	200YW300-25-37	200	200 300 400	27 25 21	980	37
50	200YW400-27-45	200	200 400 500	34 27 21	1480	45
51	200YW400-30-55	200	200 400 500	37 30 24	1480	55
52	200YW400-35-75	200	200 400 500	41 35 31	1480	75
53	250YW500-10-22	250	400 500 600	11 10 7	1470	22

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

TTAAO-YW series pump performance

No.	Type	Outlet diameter (mm)	Capacity (m³/h)	Head (m)	Speed (r/min)	Power (kW)
54	250YW500-14-30	250	400 500 700	15 14 9	980	30
55	250YW500-16-37	250	400 500 700	18 16 13	980	37
56	250YW500-20-45	250	400 500 700	22 20 16	980	45
57	250YW600-22-55	250	500 600 700	25 22 19	980	55
58	250YW600-28-75	250	500 600 800	31 28 23	1480	75
59	300YW800-8-30	300	700 800 1000	9 8 6	980	30
60	300YW800-10-37	300	700 800 1000	11 10 8	980	37
61	300YW800-13-45	300	700 800 1000	14 13 10	980	45
62	300YW800-17-55	300	700 800 1000	18 17 13	980	55
63	300YW800-20-75	300	700 800 1200	21 20 16	1480	75
64	300YW1000-21-90	300	800 1000 1200	23 21 19	1480	90
65	350YW1200-9-45	350	1000 1200 1500	11 9 7	745	45
66	350YW1200-11-55	350	1000 1200 1500	13 11 9	745	55
67	350YW1500-13-75	350	1200 1500 2000	15 13 10	990	75
68	350YW1500-16-90	350	1200 1500 2000	18 16 12	990	90



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TTAAO-YW series pump installation dimension

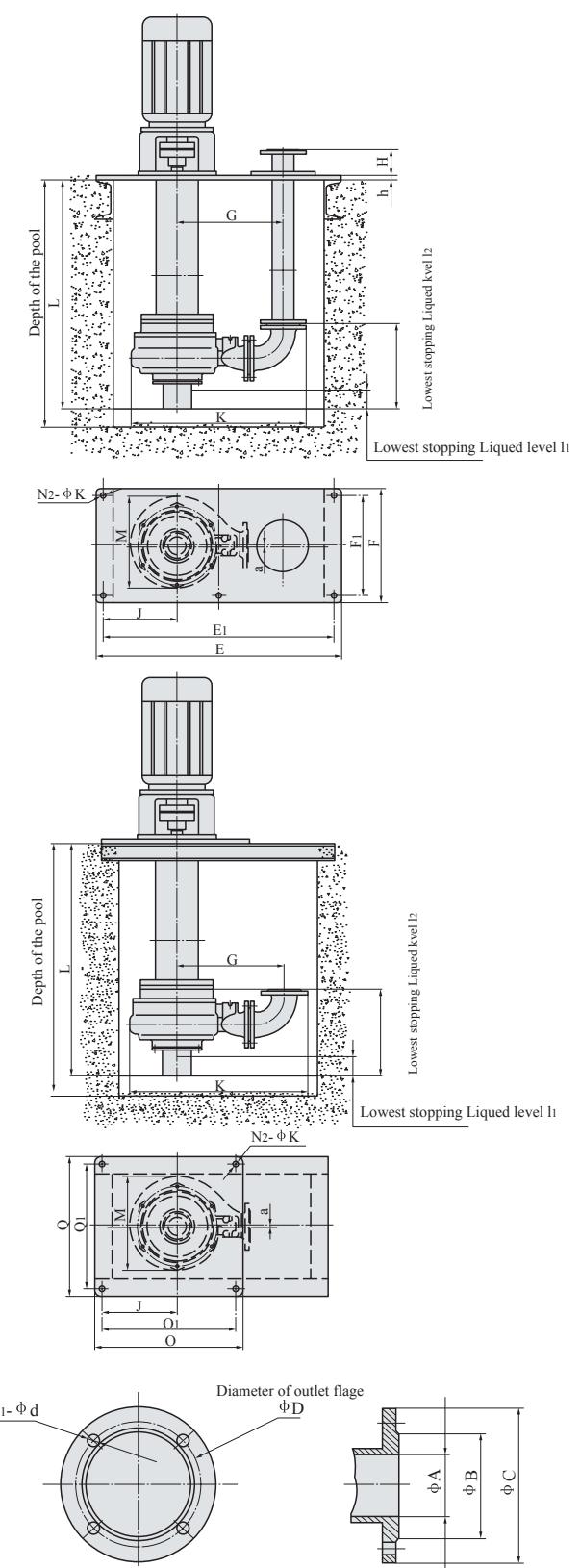
No.	Type	Outlet flange								
		φ A	φ B	φ C	φ D	N ₁ - φ d	E × F	E ₁ × F ₁	O × Q	O ₁ × Q ₁
30	100YW100-25-15	100	148	210	170	4- φ 17.5	880×460	820×400	560×520	500×460
31	100YW100-30-18.5	100	148	210	170	4- φ 17.5	880×460	820×400	560×520	500×460
32	100YW100-38-22	100	148	210	170	4- φ 17.5	880×460	820×400	560×520	500×460
33	150YW150-7-7.5	150	202	265	225	8- φ 17.5	1050×550	990×490	650×610	590×550
34	150YW150-8-7.5	150	202	265	225	8- φ 17.5	1050×550	990×490	650×610	590×550
35	150YW150-13-11	150	202	265	225	8- φ 17.5	1050×550	990×490	650×610	590×550
36	150YW150-18-15	150	202	265	225	8- φ 17.5	1050×550	990×490	650×610	590×550
37	150YW150-22-18.5	150	202	265	225	8- φ 17.5	1200×650	1140×590	750×710	690×650
38	150YW150-28-22	150	202	265	225	8- φ 17.5	1200×650	1140×590	750×710	690×650
39	200YW300-6-11	200	260	320	280	8- φ 17.5	1050×550	990×490	650×610	590×550
40	200YW300-9-15	200	260	320	280	8- φ 17.5	1050×550	990×490	650×610	590×550
41	200YW300-12-18.5	200	260	320	280	8- φ 17.5	1200×650	1140×590	750×710	690×650
42	200YW300-15-22	200	260	320	280	8- φ 17.5	1200×650	1140×590	750×710	690×650
43	250YW500-10-22	250	312	375	335	12- φ 17.5	1330×680	1270×620	790×740	730×680

Note: 1' L=0.5~10m; 2、For the pump 5m or above under liquid will be separately shipped and then installed on the site.

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

TTAAO-YW series pump installation dimension

G	M	K	a	H	h	J	N ₂ - φ k	I ₁	I ₂
440	370	720	-	100	12	225	4- φ 25	150	400
440	370	720	-	100	12	235	4- φ 25	150	400
440	370	720	-	100	12	235	4- φ 25	150	400
550	453	910	-	190	12	260	4- φ 25	250	450
550	453	910	-	190	12	260	4- φ 25	250	450
550	453	910	-	190	12	260	4- φ 25	250	450
550	457	910	-	190	12	260	4- φ 25	250	450
600	387	720	-	190	12	300	4- φ 25	250	450
600	387	720	-	190	12	300	4- φ 25	250	450
550	556	1070	40	200	20	310	4- φ 25	300	500
550	556	1070	40	200	20	310	4- φ 25	300	500
650	556	1070	40	200	20	310	4- φ 25	300	500
650	556	1070	40	200	20	310	4- φ 25	300	500
720	586	1160	40	215	20	330	4- φ 25	350	550





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TTAAO-YW series pump installation dimension

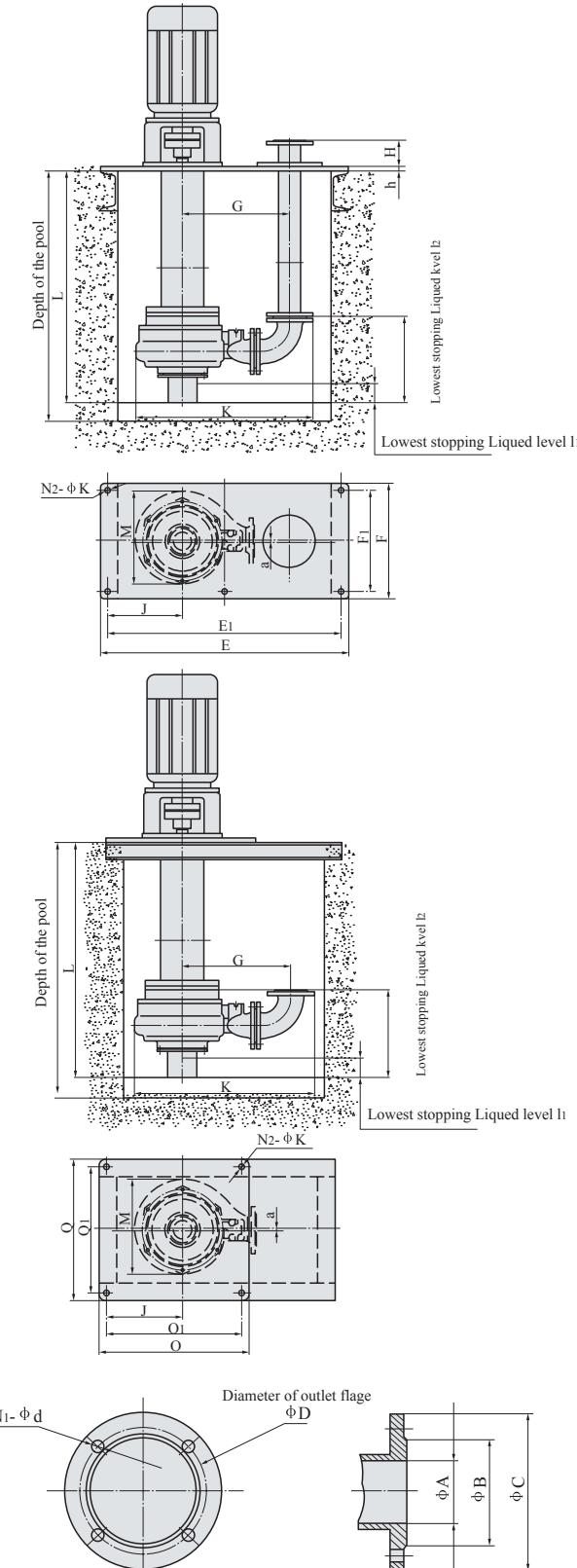
No.	Type	Outlet flange								
		ΦA	ΦB	ΦC	ΦD	N ₁ -Φd	E×F	E ₁ ×F ₁	O×Q	O ₁ ×Q ₁
1	150YW150-32-30	150	202	265	225	8-Φ17.5	1200×650	1140×590	750×710	690×650
2	150YW150-40-37	150	202	265	225	8-Φ17.5	1400×780	1330×710	900×850	830×780
3	150YW150-46-37	150	202	265	225	8-Φ17.5	1400×780	1330×710	900×850	830×780
4	150YW150-50-45	150	202	265	225	8-Φ17.5	1400×780	1330×710	900×850	830×780
5	150YW100-60-55	150	202	265	225	8-Φ17.5	1400×780	1330×710	900×850	830×780
6	200YW300-23-30	200	260	320	280	8-Φ17.5	1400×780	1330×710	900×850	830×780
7	200YW300-28-37	200	260	320	280	8-Φ17.5	1400×780	1330×710	900×850	830×780
8	200YW400-27-45	200	260	320	280	8-Φ17.5	1400×780	1330×710	900×850	830×780
9	200YW400-30-55	200	260	320	280	8-Φ17.5	1400×780	1330×710	900×850	830×780
10	200YW400-35-75	200	260	320	280	8-Φ17.5	1400×780	1330×710	900×850	830×780
11	250YW500-14-30	250	312	375	335	12-Φ17.5	1520×820	1450×750	1000×880	930×810
12	250YW500-16-37	250	312	375	335	12-Φ17.5	1520×820	1450×750	1000×880	930×810
13	250YW500-20-45	250	312	375	335	12-Φ17.5	1520×820	1450×750	1000×880	930×810
14	250YW600-22-55	250	312	375	335	12-Φ17.5	1520×820	1450×750	1000×880	930×810
15	250YW600-28-75	250	312	375	335	12-Φ17.5	1520×820	1450×750	1000×880	930×810
16	300YW800-8-30	300	365	440	395	12-Φ22	1650×930	1580×860	1050×980	980×910
17	300YW800-10-37	300	365	440	395	12-Φ22	1650×930	1580×860	1050×980	980×910
18	300YW800-13-45	300	365	440	395	12-Φ22	1650×930	1580×860	1050×980	980×910
19	300YW800-17-55	300	365	440	395	12-Φ22	1650×930	1580×860	1050×980	980×910
20	300YW800-20-75	300	365	440	395	12-Φ22	1650×930	1580×860	1050×980	980×910
21	300YW1000-21-90	300	365	440	395	12-Φ22	1650×930	1580×860	1050×980	980×910
22	350YW1200-9-45	350	415	490	445	12-Φ22	1800×970	1730×900	1100×1020	1030×850
23	350YW1200-11-55	350	415	490	445	12-Φ22	1800×970	1730×900	1100×1020	1030×850
24	350YW1500-13-75	350	415	490	445	12-Φ22	1800×970	1730×900	1100×1020	1030×850
25	350YW1500-16-90	350	415	490	445	12-Φ22	1800×970	1730×900	1100×1020	1030×850

Note:1、L=0.5~10m; 2、For the pump 5m or above under liquid will be separately shipped and then installed on the site.

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

TTAAO-YW series pump installation dimension

G	M	K	a	H	h	J	N ₂ -Φk	I ₁	I ₂
600	603	1080	-	190	20	300	4-Φ25	250	450
650	603	1080	-	190	20	300	4-Φ25	250	450
650	603	1080	-	190	20	300	4-Φ25	250	450
650	603	1080	-	190	20	400	4-Φ30	250	450
650	603	1080	-	190	20	400	4-Φ30	250	450
750	685	1232	30	200	20	410	4-Φ30	300	550
750	685	1232	30	200	20	410	4-Φ30	300	550
750	685	1232	30	200	20	410	4-Φ30	300	550
750	685	1232	30	200	20	410	4-Φ30	300	550
850	720	1356	45	215	20	410	4-Φ30	350	600
850	720	1356	45	215	20	410	4-Φ30	350	600
850	720	1356	45	215	20	410	4-Φ30	350	600
850	806	1356	45	250	20	410	4-Φ30	350	600
850	806	1356	45	250	20	410	4-Φ30	350	600
900	824	1500	60	250	20	455	4-Φ30	450	700
900	824	1500	60	250	20	455	4-Φ30	450	700
900	824	1500	60	250	20	455	4-Φ30	450	700
900	824	1500	60	250	20	455	4-Φ30	450	700
900	824	1500	60	250	20	455	4-Φ30	450	700
900	865	1630	65	280	20	475	4-Φ30	500	850
950	865	1630	65	280	20	475	4-Φ30	500	850
950	865	1630	65	280	20	475	4-Φ30	500	850
950	865	1630	65	280	20	475	4-Φ30	500	850





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TTAAO-YWP series stainless under-liquid sewage pump's performance

No.	Type	Outlet diameter (mm)	Capacity (m³/h)	Head (m)	Speed (r/min)	Power (kW)
1	50YWP15-8-1.1	50	10 15 20	9 8 6	2900	1.1
2	50YWP20-7-1.5	50	15 20 25	8 7 6	2900	1.5
3	50YWP10-15-2.2	50	8 10 15	16 15 13	2900	2.2
4	50YWP15-20-3	50	10 15 25	22 20 16	2900	3
5	50YWP15-25-4	50	10 15 25	27 25 19	2900	4
6	50YWP15-30-5.5	50	10 15 25	33 30 24	2900	5.5
7	50YWP25-30-7.5	50	20 25 40	33 30 23	2900	7.5
8	50YWP25-40-11	50	20 25 40	42 40 35	2900	11
9	65YWP30-10-3	65	20 30 40	12 10 8	2900	3
10	65YWP30-15-4	65	20 30 40	17 15 13	2900	4
11	65YWP30-20-4	65	20 30 45	22 20 17	2900	4
12	65YWP50-32-15	65	40 50 75	34 32 27	2900	15
13	65YWP50-40-18.5	65	40 50 75	43 40 35	2900	18.5
14	80YWP40-7-3	80	30 40 60	8 7 5	2900	3
15	80YWP50-10-4	80	40 50 75	12 10 7	2900	4

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

TTAAO-YWP series stainless under-liquid sewage pump's performance

No.	Type	Outlet diameter (mm)	Capacity (m³/h)	Head (m)	Speed (r/min)	Power (kW)
16	80YWP50-15-5.5	80	40 50 75	17 15 11	2900	5.5
17	80YWP50-18-7.5	80	40 50 75	21 18 15	2900	7.5
18	80YWP50-23-11	80	40 50 75	25 23 19	2900	11
19	100YWP100-18-15	100	80 100 120	21 18 15	2900	15
20	100YWP100-25-18.5	100	80 100 120	27 25 23	2900	18.5



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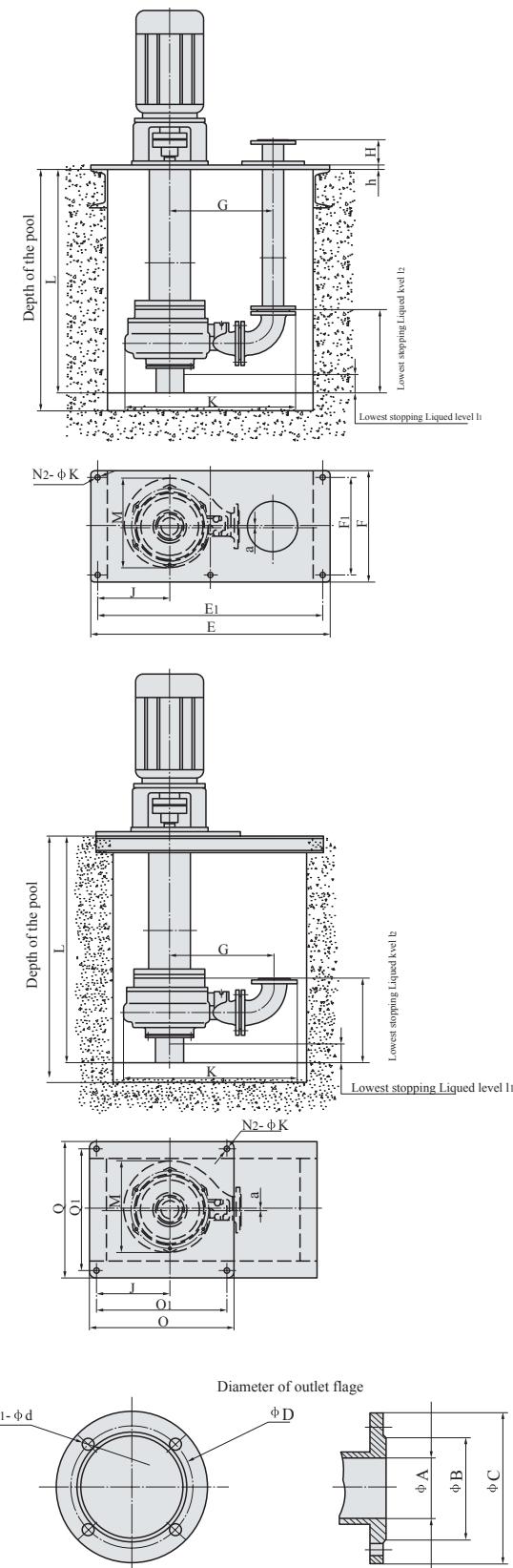
TTAAO-YWP series stainless sewage pump's dimension

No.	Type	Outlet flange								
		φ A	φ B	φ C	φ D	N1- φ d	E×F	E1×F1	Q×O	Q1×O1
1	50YWP15-8-1.1	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
2	50YWP20-7-1.5	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
3	50YWP10-15-2.2	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
4	50YWP15-20-3	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
5	50YWP15-25-4	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
6	50YWP15-30-5.5	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
7	50YWP25-30-7.5	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
8	50YWP25-40-11	50	90	140	110	4- φ 13.5	700×350	650×300	450×400	400×350
9	65YWP30-10-3	65	110	160	130	4- φ 13.5	700×350	650×300	450×400	400×350
10	65YWP30-15-4	65	110	160	130	4- φ 13.5	700×350	650×300	450×400	400×350
11	65YWP30-20-5.5	65	110	160	130	4- φ 13.5	700×350	650×300	450×400	400×350
12	65YWP50-32-15	65	110	160	130	4- φ 13.5	700×350	650×300	450×400	400×350
13	65YWP50-40-18.5	65	110	160	130	4- φ 13.5	700×350	650×300	450×400	400×350
14	80YWP40-7-3	80	128	190	150	4- φ 17.5	700×350	650×300	450×400	400×350
15	80YWP50-10-4	80	128	190	150	4- φ 17.5	700×350	650×300	450×400	400×350
16	80YWP50-15-5.5	80	128	190	150	4- φ 17.5	700×350	650×300	450×400	400×350
17	80YWP50-18-7.5	80	128	190	150	4- φ 17.5	700×350	650×300	450×400	400×350
18	80YWP50-23-11	80	128	190	150	4- φ 17.5	700×350	650×300	450×400	400×350
19	100YWP100-18-15	100	148	210	170	4- φ 17.5	700×350	650×300	450×400	400×350
20	100YWP100-25-18.5	100	148	210	170	4- φ 17.5	700×350	650×300	450×400	400×350

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

TTAAO-YWP series stainless sewage pump's dimension

G	M	K	a	H	h	J	N2- φ k	l1	l2
280	255	480	0	100	12	230	4- φ 20	80	250
280	255	480	0	100	12	230	4- φ 20	80	250
280	255	480	0	100	12	230	4- φ 20	80	250
280	255	480	0	100	12	230	4- φ 20	80	250
280	255	480	0	100	12	230	4- φ 20	80	250
280	255	480	0	100	12	230	4- φ 20	80	250
280	255	480	0	100	12	230	4- φ 20	80	250
300	255	510	0	100	12	230	4- φ 20	80	250
300	255	510	0	100	12	230	4- φ 20	80	250
300	255	510	0	100	12	230	4- φ 20	80	250
300	255	510	0	100	12	230	4- φ 20	80	250
300	255	510	0	100	12	230	4- φ 20	80	250
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350
350	268	580	0	100	12	180	4- φ 20	120	350





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Installation and use

There are single-pipe and double-pipe (for liquid out) two ways of installation for the pump.

The pipeline connected to the liquid-out pipe of the under-liquid pump should be fitted with a stand separately and it is not allowed to put the weight of the externally connected pipeline on the pump casing.

Before use, carefully check if both pump and motor damaged and check the situation of the fasteners.

Turn the pump with hand to see if there is a frictional sound.

Never use a knife switch to turn on the power or directly turn it on from the electric network, for which a fully automatic pump control cabinet can be equipped with to make sure of the pump's normal run.

The impeller moves CW viewed from the motor and never have it reversedly move.

Maintenance

The pump's inlet pipeline must be full of liquid and never let it run in the state of lack of liquid or under the working condition of steam corrosion in order to extend its life of use.

The pump is not allowed to run for a long time under a low-head state and take a periodic and timing check of the current valve of the motor so as to prevent the pump from being burnt due to overload.

Designate a special person to take care of and use the pump and carry out a periodic check of it to see if the circuit and work are normal.

About every 5000h of use of the pump under the normal condition, fill the engine oil into the oil chamber or replace it so as to have the mechanical seal kept in a good lubricated state and its duration enhanced.

Notice for ordering

To order, please make a note of the used head, flow, medium, temperature and depth under-liquid so as for this Co. to supply more reliable products.

The ordinary pump is made of cast-iron, Please set a special order for work with special working conditions and special medium, this Co. will select proper material and structure to meet with the requirements.

This Co. can supply the automatic water level control box for special completion, the under-liquid sewage pump's electric control cabinet of various step-down starting modes when the motor's power is more than 15kW and, upon the need of users, the one-control-two (one for use one for spare), one-control-threee (two for use one for spare) control cabinet and those with a specially required control.

TTAAO-YW(P) SERIES UNDER-LIQUID SEWAGE PUMP

Failures causes and troubleshooting

Failure	Causes	Troubleshooting
1、 No water out of pump	a) Motor reversedly move b) Impeller gear blocked c) Too high head	a) Change it b) Remove foreign matters c) Lower it or replace pump
2、 Insufficient flow	a) Too high head b) Too heavy pipeline resistance	a) Lower it b) Reduce flexural gears
3、 Too heavy head	a) Impeller seriously damaged	a) Replace it
4、 Too heavy current	a) Too low head used b) Too high medium gravity c) Mechanical friction produced d) Low working voltage	a) Adjust flow or replace pump b) Replace motor with one of a heavy power c) d) Adjust it
5、 Noise or vibration with pump	a) Corrosion makes pump unbalanced b) Bearing damaged c) Too heavy flow	a) Replace it b) Replace it c) Throttle with gate valve



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