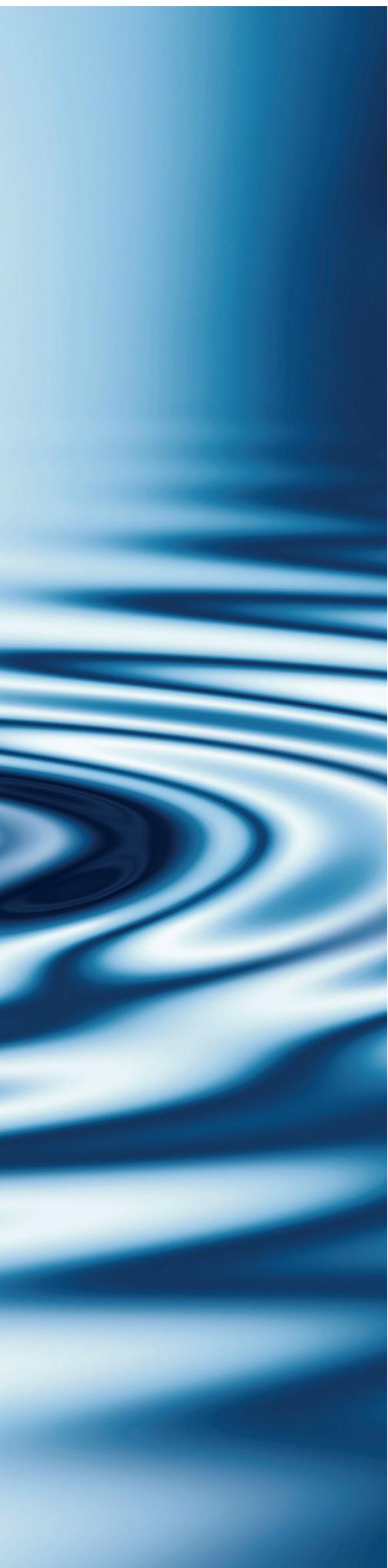




SPCO[®]
makes life easier



MAQ
Submersible Sewage Pump



General Data

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Application

It is mainly used for removing various sewage sludges in municipal and industrial sewage treatment projects, industrial and mining enterprises, hospitals, hotels, restaurants, construction and other industries. It is used for transporting urban sewage, wastewater and rainwater containing solid particles and various fibers. It is also used for farmland irrigation.

Features

Unique hydraulic design provides excellent hydraulic abilities, non-loading characteristics, allowing the pump to run with high efficiency and safely in higher capacity.

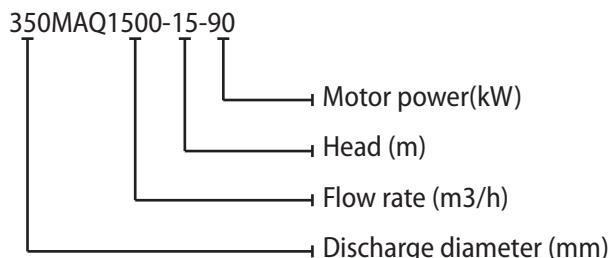
Excellent hydraulic abilities. The big channel and non-clogging impeller can transfer liquid containing solid particles, long fibers, impurities between 6-125mm diameter.

The pump is equipped with fully automatic alarm protection system and liquid level control system to protect the pump against water, oil or electricity leakage, overloading, overheating and lack of phase, etc. In addition, the pump is controlled and protected in various status and we ensure it is operating properly.

The automatic installation system is well designed with high strength and easy to instal. No pumping station is required.

High quality bearings and high-temperature grease are used in the pumps which allow the components to run over 10,000 hours without repairing.

Definition of model



Operating conditions

Medium temperature not exceed 40°C, medium density not exceed 1.2kg/dm³, solid contents less than 2%.

Liquid PH value is between 4 and 10.

Pump motor can not operate above liquid level.

Impellers



Double channel impeller



Double vane type impeller



Mixed flow impeller



Single channel impeller

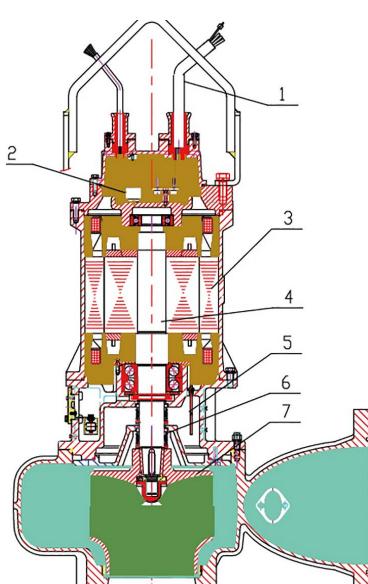


Vortex impeller



Multiple blade impeller

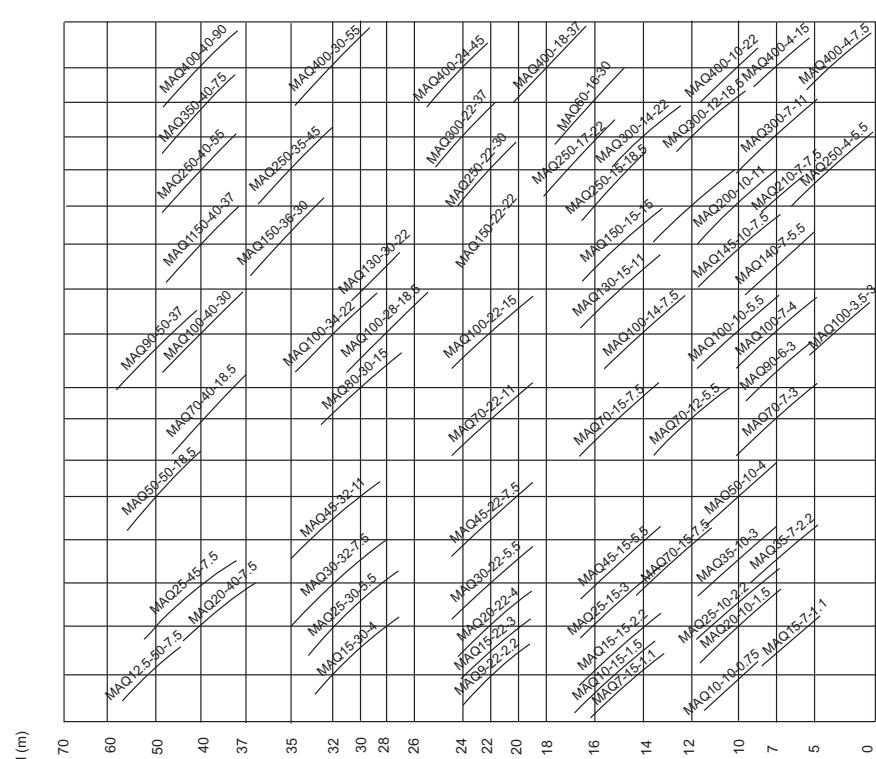
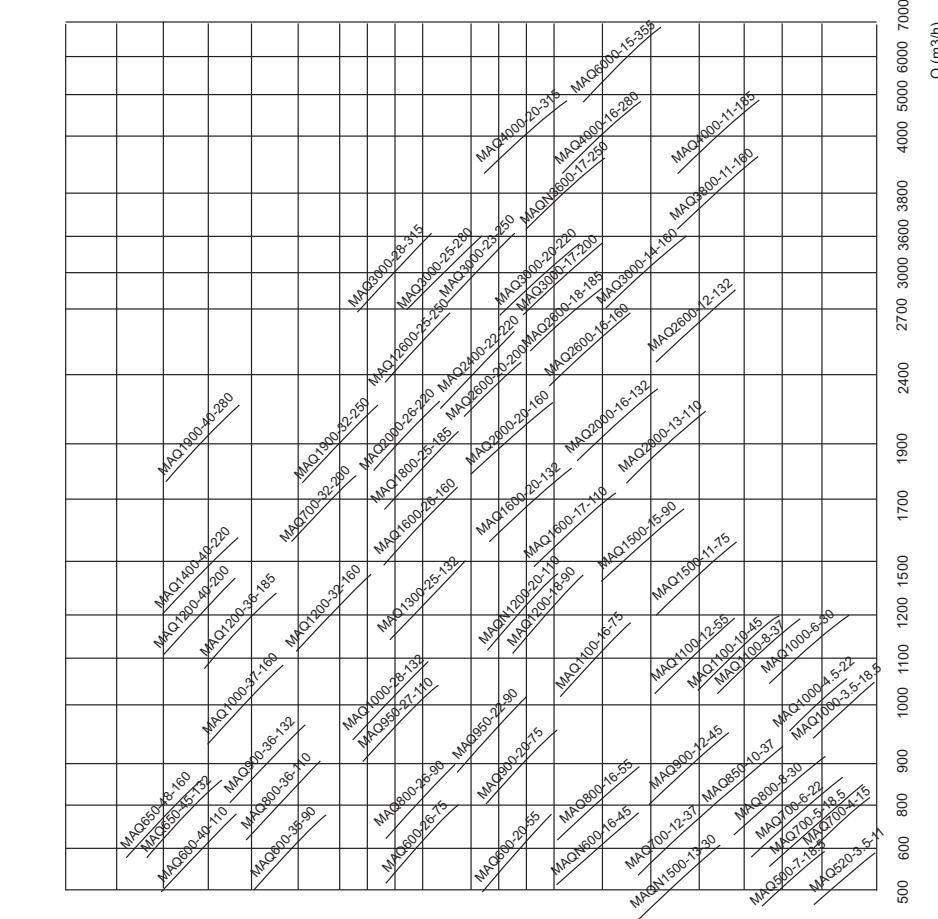
Structure



1. Unique water-resistant power cable design prevents leaking caused by outer jacket damage.
2. The water leaking probe inside the motor sends out alarm signal in case of motor water leakage and the control system offers pump an automatic protection.
3. The motor winding insulation is Class F, with thermal protector in each phase.
4. The motor shaft is made of stainless steel. The rotor has been dynamically balanced which allows the pump to run smoothly.
5. The pump is equipped with dual seal monitoring systems. Leaking from either seal will trig the warning signal. The probe in the wiring chamber will send warning signal if leaking happens and thus protects the pump system.
6. Mechanical seals: Carbon vs. SiC motor side, SiC vs SiC pump side. These seals are high-temperature compatible, anti-impacting, anti-wearing and have long service life. Thus the pump can run long time safely.
7. Channel impeller design provides large solids passage, anti-clogging, and high efficiency, etc.

General Data

Performance curves



Performance tables

No	Model	Discharge (mm)	Flow rate (m³/h)	Head (m)	Power (kW)	Speed (r/min)	Efficiency (%)	Voltage (V)	Current (A)	Solid handling (mm)	Weight (Kg)
1	50MAQ10-10-0.75	50	10	10	0.75	2850	45	220	1.7	25	30
2	50MAQ7-15-1.1	50	7	15	1.1	2860	42		2.5	20	25
3	50MAQ15-7-1.1	50	15	7			48			25	25
4	50MAQ10-15-1.5	50	10	15	1.5	2860	51		4.6	25	30
5	50MAQ20-10-1.5	50	20	10			51			25	35
6	50MAQ9-22-2.2	50	9	22	2.2	2860	44			25	45
7	50MAQ15-15-2.2	50	15	15			52		4.8	25	45
8	50MAQ25-10-2.2	50	25	10			51			30	45
9	65MAQ35-7-2.2	65	35	7			54			30	50
10	50MAQ15-22-3	50	15	22			51			25	45
11	50MAQ25-15-3	50	25	15			51		6.4	30	45
12	65MAQ35-10-3	65	35	10	3	1460	54			30	50
13	100MAQ70-7-3	100	70	7			56			35	80
14	100MAQ90-6-3	100	90	6			56			35	80
15	100MAQ100-3.5-3	100	100	3.5	4	2860	54			35	80
16	50MAQ15-30-4	50	15	30			46			25	70
17	50MAQ20-22-4	50	20	22			50		8.6	25	70
18	65MAQ50-10-4	65	50	10			56			35	75
19	100MAQ100-7-4	100	100	7	5.5	1460	65		9.2	35	80
20	50MAQ25-30-5.5	50	25	30			49			15	80
21	50MAQ30-22-5.5	50	30	22			53		11	15	80
22	80MAQ45-15-5.5	80	45	15			56			30	140
23	100MAQ70-12-5.5	100	70	12			58		12.2	35	140
24	100MAQ100-10-5.5	100	100	10			61			35	140
25	150MAQ140-7-5.5	150	140	7			72			85	170
26	200MAQ250-4-5.5	200	250	4			70		13	75	230
27	50MAQ12.5-50-7.5	5	12.5	50	7.5	2860	49			15	85
28	50MAQ20-40-7.5	50	20	40			50		15	15	85
29	50MAQ25-45-7.5	50	25	45			55			15	85
30	50MAQ30-32-7.5	50	30	32			52			15	85
31	80MAQ45-22-7.5	80	45	22			65			30	150
32	80MAQ70-15-7.5	80	70	15			73		16.6	35	150
33	80MAQ100-14-7.5	80	100	14			73			35	150
34	150MAQ145-10-7.5	150	145	10			74			85	195
35	150MAQ210-7-7.5	150	210	7			74			75	195
36	200MAQ400-4-7.5	200	400	4			75		17	75	250

Performance tables

No	Model	Discharge (mm)	Flow rate (m³/h)	Head (m)	Power (kW)	Speed (r/min)	Efficiency (%)	Voltage (V)	Current (A)	Solid handling (mm)	Weight (Kg)
37	80MAQ45-32-11	80	45	32	11	1460	56	380	24	30	250
38	100MAQ70-22-11	100	70	22			55			35	250
39	100MAQ130-15-11	100	130	15			60			45	250
40	150MAQ200-10-11	150	200	10			65			50	280
41	200MAQ300-7-11	200	300	7			66			50	350
42	250MAQ520-3.5-11	250	520	3.5		980	70		26	100	380
43	100MAQ80-30-15	100	80	30	15	1460	60			35	270
44	100MAQ100-22-15	100	100	22			65			40	270
45	150MAQ150-15-15	150	150	15			73		32	50	300
46	150MAQ200-12-15	150	200	12			75			50	300
47	200MAQ400-7-15	200	400	7			66			50	380
48	250MAQ700-4-15	250	700	4		980	70		35	100	420
49	100MAQ50-50-18.5	100	50	50	18.5	1460	65			30	330
50	100MAQ70-40-18.5	100	70	40			58			35	350
51	100MAQ100-28-18.5	100	100	28			62		38	40	350
52	200MAQ250-15-18.5	200	250	15			72			75	420
53	200MAQ300-12-18.5	200	300	12			73			75	420
54	200MAQ500-7-18.5	200	500	7			70		40	85	420
55	250MAQ700-5-18.5	250	700	5		980	72			85	580
56	350MAQ1000-3.5-18.5	350	1000	3.5		65	150			660	
57	100MAQ100-34-22	100	100	34	22	1460	60	380	45	35	380
58	150MAQ130-30-22	150	130	30			60			40	400
59	150MAQ150-22-22	150	150	22			71			50	400
60	200MAQ250-17-22	200	250	17			72			50	430
61	200MAQ300-14-22	200	300	14			74			75	430
62	200MAQ400-10-22	200	400	10			74		47	85	430
63	250MAQ700-6-22	250	700	6		980	73			85	600
64	350MAQ1000-4.5-22	350	1000	4.5		75	150			680	
65	150MAQ100-40-30	150	100	40	30	1460	65		59	40	600
66	150MAQ150-36-30	150	150	36		65	40			600	
67	200MAQ250-22-30	200	250	22		980	73			85	700
68	200MAQ360-16-30	200	360	16			79			85	700
69	250MAQ500-13-30	250	500	13			80			125	800
70	300MAQ800-8-30	300	800	8			78		61	125	900
71	350MAQ1100-6-30	350	1100	6			62			125	1000
72	150MAQ90-50-37	150	90	50	37	1460	62			70	125
											680

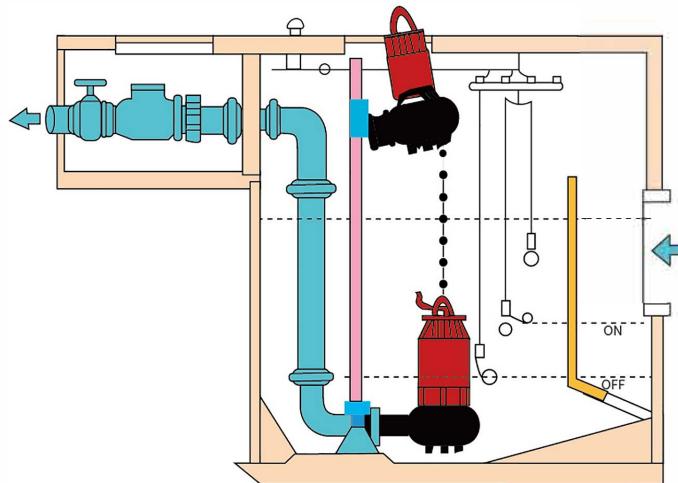
Performance tables

No	Model	Discharge (mm)	Flow rate (m³/h)	Head (m)	Power (kW)	Speed (r/min)	Efficiency (%)	Voltage (V)	Current (A)	Solid handling (mm)	Weight (Kg)
73	150MAQ150-40-37	150	150	40	37	1460	67	380	70	45	680
74	200MAQ300-22-37	200	300	22		980	75			85	750
75	200MAQ400-18-37	200	400	18		980	80			85	750
76	250MAQ700-12-37	250	700	12		980	75		72	125	820
77	300MAQ850-10-37	300	850	10		980	76			125	870
78	350MAQ1100-8-37	350	1100	8		980	78			125	920
79	200MAQ250-35-45	200	250	35	45	1460	71		85	50	850
80	200MAQ400-24-45	200	400	24		980	75			85	850
81	250MAQ600-16-45	250	600	16		980	75		88	125	890
82	300MAQ900-12-45	300	900	12		980	78			125	940
83	350MAQ1100-10-45	350	1100	10		980	81			125	980
84	200MAQ250-40-55	200	250	40	55	1460	70	380	102	50	880
85	200MAQ400-30-55	200	400	30		980	70			50	880
86	250MAQ600-20-55	250	600	20		980	75			125	920
87	300MAQ900-15-55	300	900	15		980	77		104	125	960
88	350MAQ1100-12-55	350	1100	12		980	74			125	1000
89	200MAQ350-40-75	200	350	40	75	1460	70			55	1500
90	250MAQ600-26-75	250	600	236		980	76		141	125	1600
91	250MAQ900-20-75	250	900	20		980	76			125	1800
92	350MAQ1100-16-75	350	1100	16		980	75			125	1800
93	350MAQ1500-11-75	350	1500	11		980	75			125	1800
94	200MAQ400-40-90	200	400	40	90	1460	70	380		55	1700
95	250MAQ600-35-90	250	600	35		980	75			125	1750
96	250MAQ800-26-90	250	800	26		980	80			125	1750
97	250MAQ950-22-90	250	950	22		980	80			125	1750
98	350MAQ1200-18-90	350	1200	18		980	80			125	1860
99	350MAQ1500-15-90	350	1500	15	110	1460	81			125	1860
100	250MAQ600-40-110	250	600	40		980	72			125	1900
101	250MAQ800-36-110	250	800	36		980	79			125	1900
102	250MAQ950-27-110	250	950	27		980	75			125	1900
103	350MAQ1200-20-110	350	1200	20		980	75		204	125	2000
104	350MAQ1600-17-110	350	1600	17	132	1460	78			125	2000
105	350MAQ2000-13-110	350	2000	13		980	81			125	2000
106	200MAQ650-45-132	200	650	45		980	75			70	2100
107	250MAQ900-36-132	250	900	36		980	79		260	70	2100
108	350MAQ1000-28-132	350	1000	28		980	79			125	2200

Performance tables

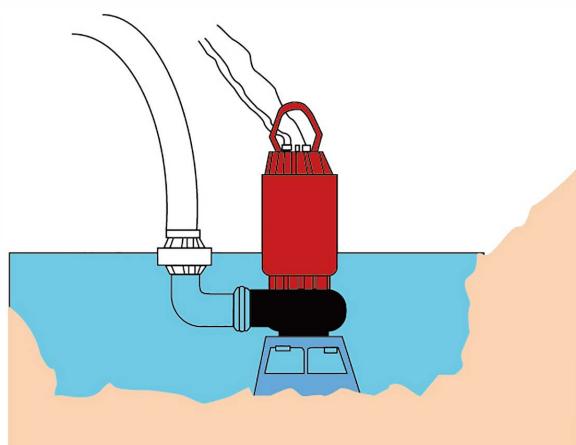
No	Model	Discharge (mm)	Flow rate (m³/h)	Head (m)	Power (kW)	Speed (r/min)	Efficiency (%)	Voltage (V)	Current (A)	Solid handling (mm)	Weight (Kg)
109	350MAQ1300-25-132	350	1300	25	132	980	79	380	260	125	2200
110	350MAQ1600-20-132	350	1600	20			82			125	2200
111	350MAQ2000-16-132	350	200	16			80			125	2200
112	500MAQ2600-12-132	500	2600	12			83			125	2400
113	250MAQ650-48-160	250	650	48		160	74		300	70	2300
114	350MAQ1000-37-160	350	1000	37			77			125	2500
115	350MAQ1200-32-160	350	1200	32			77			125	2500
116	400MAQ1600-26-160	400	1600	26			80			125	2650
117	400MAQ2000-20-160	400	2000	20			80			125	2650
118	500MAQ2600-16-160	500	2600	16			85			125	2650
119	600MAQ3000-14-160	600	3000	14	185	740	86	320	125	125	2850
120	600MAQ3800-11-160	600	3800	11			86			125	2850
121	350MAQ1200-36-185	350	1200	36		980	82		340	125	2800
122	400MAQ1800-25-185	400	1800	25		740	82			125	2950
123	500MAQ2600-18-185	500	2600	18	200	740	83	356	125	125	3050
124	600MAQ4000-11-185	600	4000	11			87			125	3150
125	350MAQ1200-40-200	350	1200	40		980	75		370	125	3050
126	400MAQ1700-32-200	400	1700	32		740	82			125	3150
127	500MAQ2600-20-200	500	2600	20		220	83	386	125	125	3200
128	500MAQ3000-17-200	500	3000	17			86			125	3200
129	350MAQ1400-40-220	350	1400	40	250	980	80		400	125	3350
130	400MAQ2000-26-220	400	2000	26		740	83			125	3500
131	400MAQ2400-22-220	400	2400	22		280	85		415	125	3500
132	500MAQ3000-20-220	500	3000	20			80			125	3850
133	400MAQ1900-32-250	400	1900	32		315	82	460	125	125	3900
134	500MAQ2600-25-250	500	2600	25			85			125	3900
135	500MAQ3000-23-250	500	3000	23			80			125	4100
136	600MAQ3800-17-250	600	3800	17			87			125	4400
137	400MAQ1900-40-280	400	1900	40	355	980	80	520	125	125	4200
138	500MAQ3000-25-280	500	3000	25		740	82			125	4500
139	600MAQ4000-16-280	600	4000	16		315	81		125	125	4750
140	500MAQ3000-28-315	500	3000	28			82			125	5000
141	600MAQ4000-20-315	600	4000	20			84		560	125	5300
142	600MAQ6000-15-355	600	6000	15			85			125	5700

Installation



1. Wet fixed installation

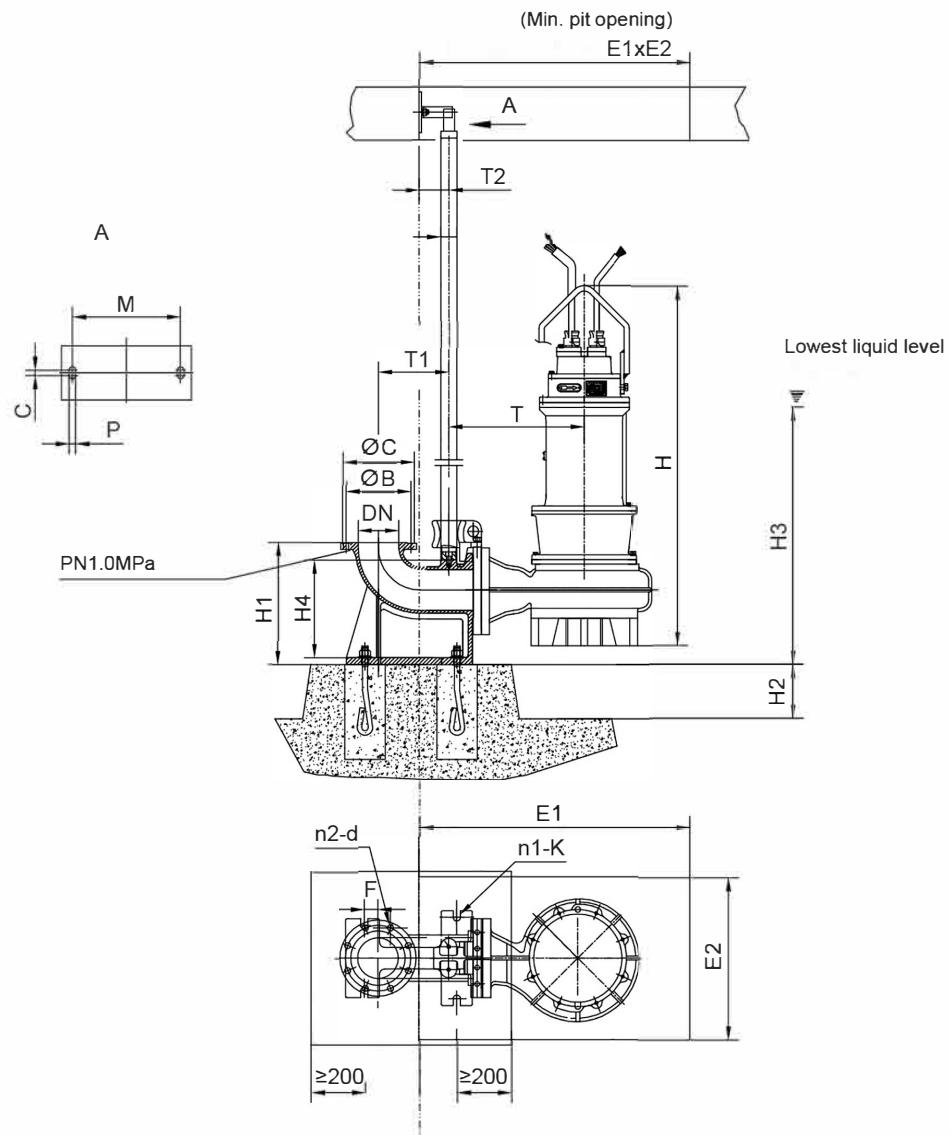
The pump is slid down to the base along the guide rail in the sump and couples with discharge pipe automatically by weight. No person is required to get into the mud pit for maintenance.



2. Movable installation

Pumps under 11 KW can be installed in this method. Simply put the pump in the desired worksite and connect it with discharge pipe.

Wet automatic installation



Installation dimensions

No	Model	DN	ØB	ØC	H	H1	H2	H3	H4	T	T1	T2	P	M	F	g1	g2	e	n2-d	n1-k	E1xE2
118	600MAQ3800-11-160	600	725	780	2880	1150	400	900	908	1170	700	140	14	280	130	880	880	1000	20-Ø30	6-Ø40	2300x1900
119	350MAQ1200-36-185	350	460	500	2760	750	400	700	585	882	431	140	14	280	250	780	780	770	16-Ø23	4-Ø40	1800x1400
120	400MAQ1800-25-185	400	515	565	2600	800	400	800	655	1130	550	140	14	280	95	780	780	800	16-Ø26	4-Ø40	2100x1800
121	500MAQ2600-18-185	500	620	670	2350	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2300x1900
122	600MAQ4000-11-185	600	725	780	2880	1150	400	900	908	1170	700	140	14	280	130	880	880	1000	20-Ø30	6-Ø40	2300x1900
123	350MAQ1200-40-200	350	460	500	2760	750	400	700	585	882	431	140	14	280	250	780	780	770	16-Ø23	4-Ø40	1800x1400
124	400MAQ1700-32-200	400	515	565	2315	800	400	800	655	1130	550	140	14	280	95	780	780	800	16-Ø26	4-Ø40	2100x1800
125	500MAQ2600-20-200	500	620	670	2350	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2300x1900
126	500MAQ3000-17-200	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2300x1900
127	350MAQ1400-40-220	350	460	500	2760	750	400	700	585	882	431	140	14	280	250	780	780	770	12-Ø23	4-Ø40	2000x1500
128	400MAQ2000-26-220	400	515	565	2600	800	400	800	655	1130	550	140	14	280	95	780	780	800	16-Ø26	6-Ø40	2100x1800
129	400MAQ2400-22-220	400	515	565	2600	800	400	800	655	1130	550	140	14	280	95	780	780	800	16-Ø26	6-Ø40	2100x1800
130	500MAQ3000-20-220	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2300x1900
131	400MAQ1900-32-250	400	515	565	2600	800	400	800	655	1080	550	140	14	280	95	780	780	800	16-Ø26	6-Ø40	2000x1500
132	500MAQ2600-25-250	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2300x1900
133	500MAQ3000-23-250	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2300x1900
134	600MAQ3800-17-250	600	725	780	2880	1150	400	900	908	1170	700	140	14	280	130	880	880	1000	20-Ø30	6-Ø40	2300x1900
135	400MAQ1900-40-280	400	515	565	2600	800	400	900	655	1080	550	140	14	280	95	780	780	800	16-Ø26	6-Ø40	2350x1900
136	500MAQ3000-25-280	500	620	670	2562	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2300x1900
137	600MAQ4000-16-280	600	725	780	2930	1150	400	900	908	1300	700	140	14	280	130	880	880	1000	20-Ø30	6-Ø40	2350x1900
138	500MAQ3000-28-315	500	620	670	2790	970	400	900	775	1230	650	140	14	280	105	780	780	900	20-Ø26	6-Ø40	2350x1900
139	600MAQ4000-20-315	600	725	780	2930	1150	400	900	908	1300	700	140	14	280	130	880	880	1000	20-Ø30	6-Ø40	2350x1900
140	600MAQ6000-15-355	600	725	780	3000	1150	400	900	908	1300	700	140	14	280	130	880	880	1000	20-Ø30	6-Ø40	2350x1900





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