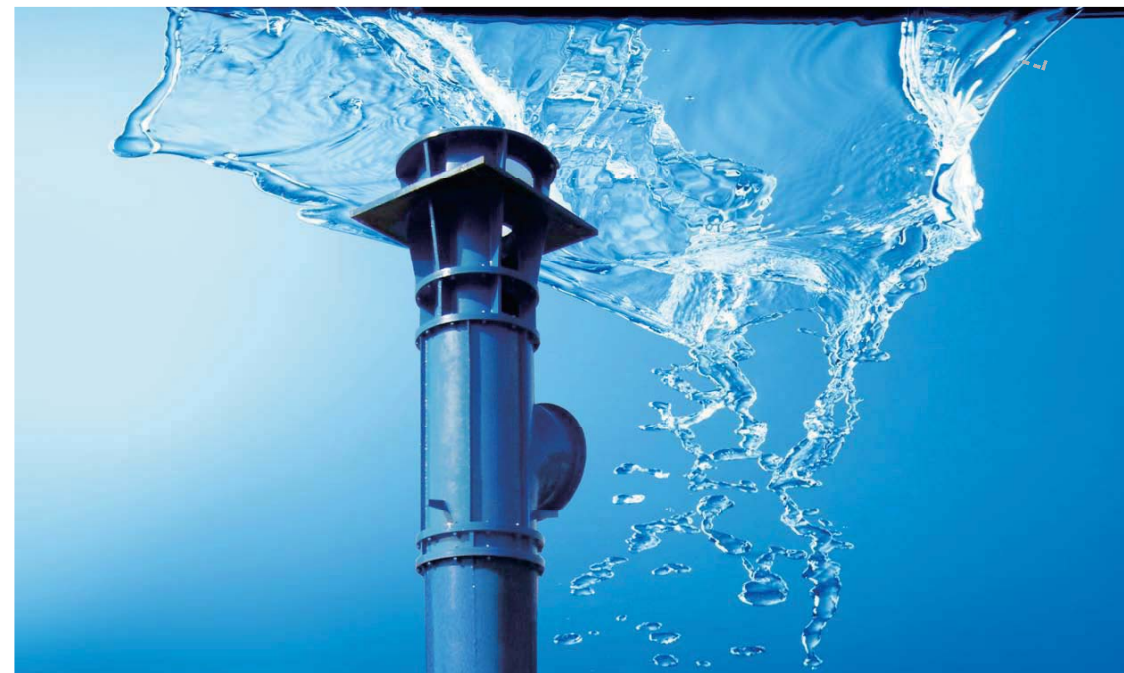


As we are constantly endeavouring to improve the performance of our equipment,
The company reserves the right to make alteration from time to time and equipment differ from that



VTP VERTICAL TURBINE PUMP



SHANGHAI TONGJI NANHUI SCIENCE HI-TECH PARK CO.,LTD.
SHANGHAI TONGKE FLOW TECHNOLOGY CO.,LTD.

HQ Add: No.1366 Chengnan Road, Huinan Town
Pudong District Shanghai.
Factory Add:No.111 Shenjiabang Road, Qingpu District, Shanghai.
Tel:+86-21-59035698 59036728
Fax:+86-21-59035699
Zip:201709

Web: www.tongkeflow.com
www.tkflow.com

All rights reserved for Shared technology

SHANGHAI TONGJI NANHUI SCIENCE HI-TECH PARK CO.,LTD.
SHANGHAI TONGKE FLOW TECHNOLOGY CO.,LTD.

VERTICAL TURBINE PUMP

CONTENTS

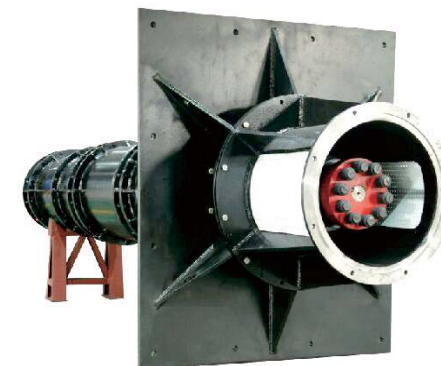
General introduction and application	1
Execute standards	1
Performance range	1
Operational conditions	1
Definition of model	2
Structure specification	2
pump structure diagram	3
Performance parameter table	6
pump curve of mode	14
pump performance curve drawing	14
Installation dimension diagram and dimension table	23

General introduction and application

VTP Type Long-axis Vertical Discharge Pump is mainly used for pumping sewage or waste water which are non corrosive, at the temperature lower than 60℃ and of which suspended substances are free of fibers or abrasive particles, content is less than 150mg/L.

On the basis of VTP type Long-axis Vertical Discharge Pump. VTP type is additionally fitted with muff armor tubing with lubricant inside, serving for pumping of sewage or waste water, which are at the temperature lower than 60℃ and contain certain solid particles, such as scrap iron, fine sand, coal powder, etc.

VTP Type Long-axis Vertical Discharge Pump is of wide applicability in the fields of public work, steel and iron metallurgy, chemistry, paper-making, tapping water service, power station and irrigation and water conservancy, etc.



Execute standards

GB/T5657 technical conditions of centrifugal pump, category III;

GB/T13008 technical conditions of mixed flow pump,

Performance range

Flux: 20m³/h ~ 50,000 m³/h

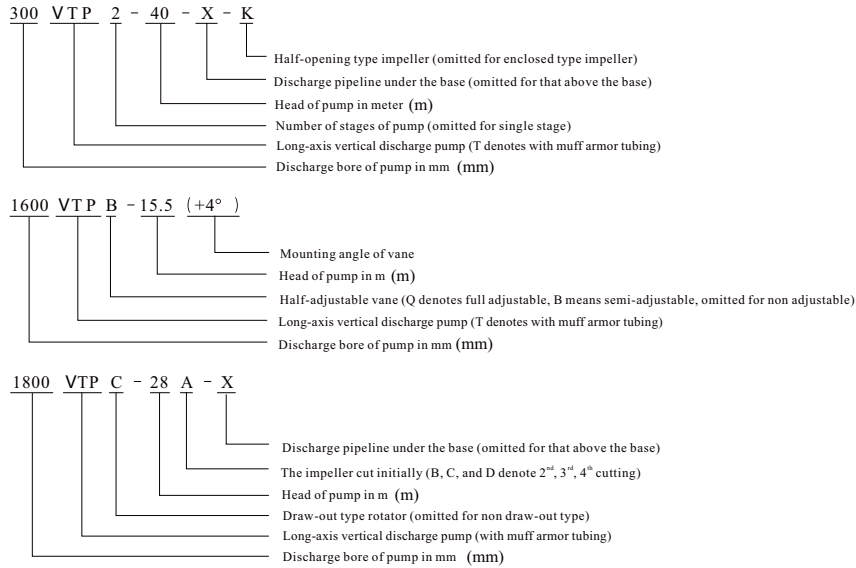
Head: 3m ~ 150m

Power: 1.5 kW ~ 3,400 kW

Operational conditions

- 1.The temperature of medium shall not be higher than 60℃.
- 2.The medium shall be neutral and PH value between 6.5~8.5. If the medium is not consistent to the requirements, specify in the order list.
- 3.For VTP type pump, the content of suspended substances in the medium shall be less than 150 mg/L; for VTP type pump, the max. Diameter of solid particles in the medium shall be less than 2 mm and the content less than 2 g/L.
- 4 VTPtype pump shall be connected with clean water or soapy water outside to lubricate the rubber bearing. For two-stage pump, lubricant pressure shall not be less than operational pressure.
- 5.The first stage impeller of pump shall be immersed in 0.5m above at min. water level and generally it is suggested to be within 2~3 m.
- 6.The wellbore shall be straight.
- 7.Specify the depth of well or under-liquid depth of pump in the order list.
- 8.Special operational condition is subject to agreement or technical agreement.

Definition of model



Structure specification

1.The inlet of VTP Type Pump shall be vertical downward and the outlet horizontal above or under the base.

2.The impeller of pump is classified into enclosed type and half-opening type, and three adjustments: non-adjustable, semi-adjustable and full adjustable. It is unnecessary to fill the water when the impellers are fully immersed in the pumped liquid.

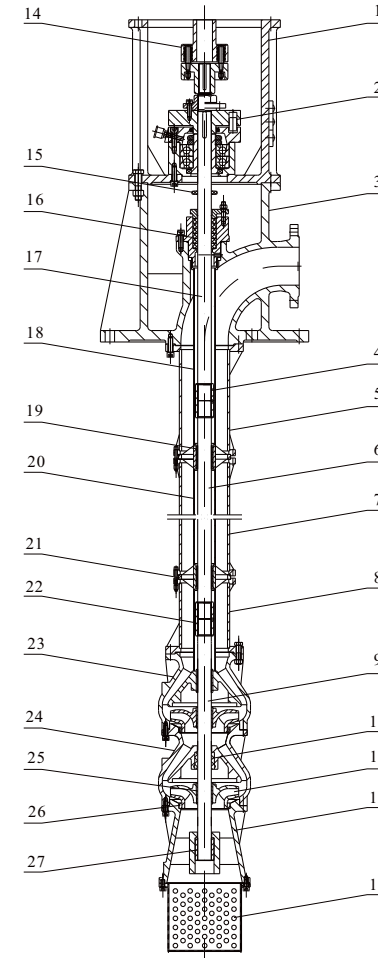
3.On the basis of VTP Pump, VTP type is additionally fit with muff armor tubing and the impellers are made of abrasive resistant material, widening the applicability of pump.

4.The connection of impeller shaft, transmission shaft, and motor shaft applies the shaft coupling nuts

5.It applies water lubricating rubber bearing and packing seal.

6.The motor generally applies standard Y series triphase asynchronous motor, or YLB type triphase asynchronous motor as requested. When assembling Y type motor, the pump is designed with anti- reverse device, effectively avoiding reverse of pump.

pump structure diagram

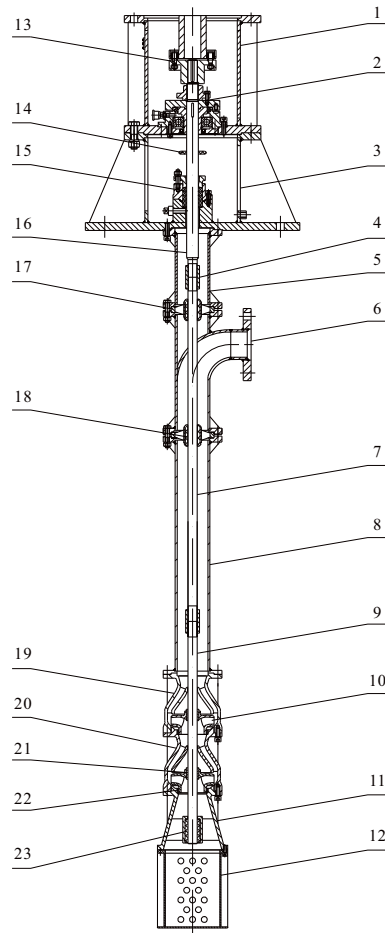


No	Name
1	Motor base
2	Anti-reverse device
3	Outlet base
4	Coupling
5	Upper ascending pipe
6	Transmission shaft
7	Mid. Ascending pipe
8	Lower ascending pipe
9	Impeller shaft
10	Mid. Rubber bearing
11	Impeller
12	Inlet base
13	Strainer
14	Flexible coupler
15	Baffler
16	Packing seal
17	Motor shaft
18	Upper armor tubing
19	Bracket rubber bearing
20	Mid. armor tubing
21	Bracket
22	Lower armor tubing
23	Upper diversion body
24	Diversion body
25	Taper sleeve
26	Seal ring
27	Lower rubber bearing

Pump Structure Diagram (for the outlet above the base)

Note: when equipped with YLB motor, both reversal resisting device and elastic clutch part will not be used.

type pump structure diagram

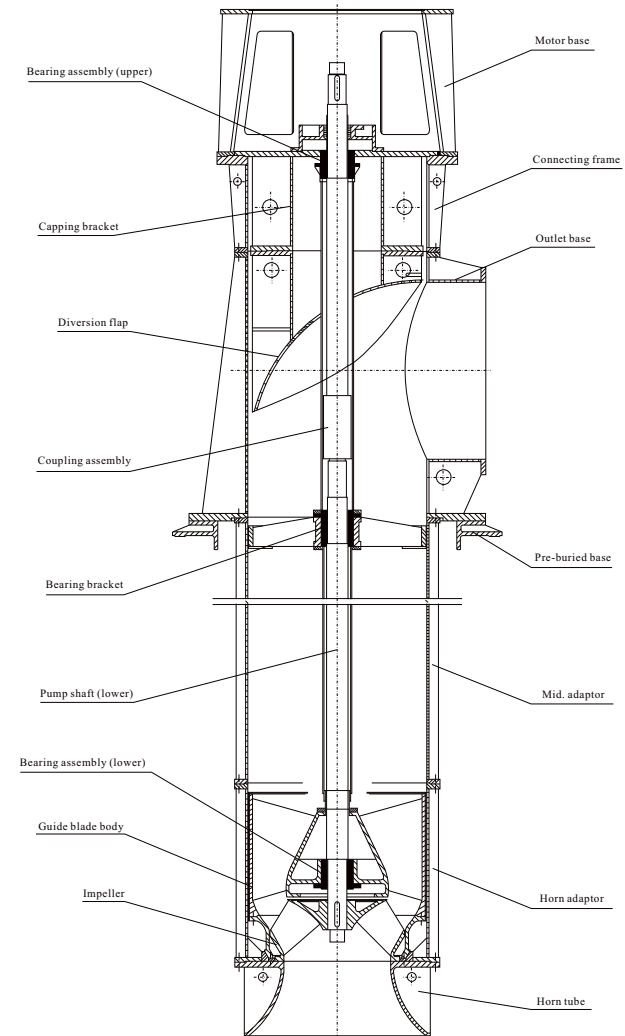


No	Name
1	Motor base
2	Anti-reverse device
3	Joint base
4	Coupling
5	Upper ascending pipe
6	Outlet base
7	Transmission shaft
8	Lower ascending pipe
9	Impeller shaft
10	Impeller
11	Inlet base
12	Strainer
13	Flexible coupler
14	Baffler
15	Packing seal
16	Motor shaft
17	Bracket
18	Bracket rubber bearing
19	Upper diversion body
20	Diversion body
21	Taper sleeve
22	Seal ring
23	Lower rubber bearing

Pump Structure Diagram (for the outlet under the base)

Note: when equipped with YLB motor, both reversal resisting device and elastic clutch part will not be used.

pump structure diagram



Type Pump Structure Diagram (loose core type structure)

Performance parameter table

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
1	50 VTP -10	50	15	10	2840	50	1.5
2	50 VTP -20			20	2870	50	3
3	50 VTP -30			30	2890	50	4
4	50 VTP -40			40	2890	50	5.5
5	50 VTP -50			50	2890	50	7.5
6	50 VTP -60			60	2900	50	11
7	50 VTP -70			70	2900	50	11
8	50 VTP -80			80	2930	50	11
9	50 VTP -90			90	2930	50	15
10	50 VTP -100			100	2930	50	15
11	65 VTP -10	65	30	10	2840	55	2.2
12	65 VTP -20			20	2890	55	4
13	65 VTP -30			30	2890	55	7.5
14	65 VTP -40			40	2890	55	11
15	65 VTP -50			50	2890	55	11
16	65 VTP -60			60	2900	55	15
17	65 VTP -70			70	2900	55	15
18	65 VTP -80			80	2930	55	18.5
19	65 VTP -90			90	2930	55	18.5
20	65 VTP -100			100	2930	55	22
21	80 VTP -15	80	50	15	2900	60	5.5
22	80 VTP -30			30	2900	60	11
23	80 VTP -45			45	2900	60	15
24	80 VTP -60			60	2930	60	22
25	80 VTP -75			75	2930	60	30
26	80 VTP -90			90	2950	60	30
27	80 VTP -105			105	2950	60	37
28	100 VTP -15	100	80	15	2900	65	7.5
29	100 VTP -30			30	2930	65	15
30	100 VTP -60			60	2930	65	30
31	100 VTP -90			90	2950	65	45
32	100 VTP -120			120	2950	65	55
33	150 VTP -20	150	150	20	1460	73	15
34	150 VTP -30			30	1470	72	22
35	150 VTP -40			40	1470	73	30
36	150 VTP -60			60	1480	72	45
37	150 VTP -80			80	1480	72	55
38	150 VTP -100			100	1490	72	75
39	150 VTP -120			120	1490	72	90
40	200 VTP -15	200	300	15	1470	75	22
41	200 VTP -20			20	1470	75	30
42	200 VTP -30			30	1480	75	45
43	200 VTP -40			40	1480	75	55
44	200 VTP -65			65	1490	74	90
45	200 VTP -90			90	1490	73	110

Performance parameter table

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
46	250 VTP -20	250	450	20	1480	76	45
47	250 VTP -30		450	30	1480	74	75
48	250 VTP -40		450	40	1480	76	90
49	250 VTP -50		450	50	1490	76	110
50	250 VTP -60		450	60	1490	75	132
51	250 VTP -75		450	75	1490	75	160
52	250 VTP -95		450	95	1490	74	200
53	300 VTP -6	300	700	6	970	72	22
54	300 VTP -8		700	8	980	72	30
55	300 VTP -10		700	10	980	74	37
56	300 VTP -15		650	15	1480	75	45
57	300 VTP -20		650	20	1480	77	55
58	300 VTP -30		650	30	1490	76	90
59	300 VTP -40		650	40	1490	76	110
60	300 VTP -60		650	60	1490	75	185
61	300 VTP -80		650	80	1490	75	220
62	350 VTP -4	350	1000	4	1470	74	22
63	350 VTP -6		1000	6	1470	75	30
64	350 VTP -8		1000	8	1470	75	37
65	350 VTP -10		1000	10	1470	76	45
66	350 VTP -15		900	15	1480	77	75
67	350 VTP -20		900	20	1490	78	90
68	350 VTP -30		900	30	1490	77	132
69	350 VTP -40		900	40	1490	78	160
70	350 VTP -60		900	60	1490	77	250
71	350 VTP -80		900	80	1490	77	315
72	350 VTP -120		900	120	1480	77	500
73	400 VTP -4	400	1500	4	1470	75	30
74	400 VTP -6		1500	6	1470	77	45
75	400 VTP -8		1500	8	980	80	55
76	400 VTP -10		1500	10	980	80	75
77	400 VTP -12		1300	12	980	78	75
78	400 VTP -16		1500	16	1480	78	110
79	400 VTP -20		1250	20	1490	80	110
80	400 VTP -25		1250	25	1490	80	132
81	400 VTP -30		1250	30	1490	80	160
82	400 VTP -35		1500	35	980	80	220
83	400 VTP -40		1250	40	1490	80	200
84	400 VTP -50		1250	50	1490	80	280
85	400 VTP -60		1250	60	1490	80	315
86	400 VTP -70		1250	70	1480	80	355
87	500 VTP -4	500	2200	4	980	82	37
88	500 VTP -6		2200	6	980	81	55
89	500 VTP -8		2300	8	980	81	75
90	500 VTP -10		2200	10	980	82	90
91	500 VTP -12		2200	12	980	84	110
92	500 VTP -15		2200	15	980	85	132

Performance parameter table

No.	Pump type	Outlet diameter mm	Capacity m³/h	Head m	Speed r/min	Efficiency %	Motor power kw
93	500 VTP -20	500	2300	20	980	83	200
94	500 VTP -25		2200	25	980	84	220
95	500 VTP -30		2200	30	980	83	280
96	500 VTP -35		2200	35	980	83	315
97	500 VTP 2 -60		2200	60	980	83	500
98	500 VTP 3-100	600	2200	100	980	83	800
99	600VTP -4		3000	4	730	84	45
100	600VTP -6		3000	6	730	83	75
101	600 VTP -8		3000	8	730	85	110
102	600 VTP -10		3000	10	730	83	132
103	600 VTP -12		3400	12	980	85	160
104	600 VTP -15		3000	15	980	85	185
105	600 VTP -20		3000	20	980	85	250
106	600VTP -25		3000	25	980	85	315
107	600VTP -30		4000	30	980	84	500
108	600VTP -35		4000	35	980	84	560
109	600 VTP 2 -60		3200	60	980	83	800
110	600 VTP -15		3200	15	980	83	200
111	600 VTP -15-X		3200	15	980	83	200
112	600 VTP -20		3000	20	980	83	250
113	600 VTP -20-X		3000	20	980	83	250
114	700 VTP -4	700	4000	4	730	83.5	75
115	700 VTP -7		4000	7	730	82.5	110
116	700VTP -9		4000	9	730	82.5	160
117	700VTP -10		4000	10	730	83.5	185
118	700 VTP -12		4500	12	730	83.5	220
119	700 VTP -15		4500	15	740	85.5	280
120	700 VTP -20		4500	20	980	86.5	355
121	700 VTP -25		4500	25	980	85	450
122	700 VTP -30		4500	30	980	85	560
123	700VTP 2 -50		4500	50	980	84	800
124	700VTP 3 -75		4500	75	980	84	1200
125	700VTP -20		4500	20	980	85.5	355
126	700 VTP -20-X		4500	20	980	85.5	355
127	800 VTP -4	800	6400	4	585	85.1	110
128	800 VTP -6		6000	6	585	84.8	160
129	800VTP -8		6500	8	585	84.5	220
130	800VTP -10		6400	10	590	83.5	250
131	800 VTP -12		6200	12	590	84.3	315
132	800 VTP -15		7000	15	590	84.5	450
133	800VTP -20		6200	20	730	86.5	500
134	800VTP -25		6200	25	730	85	600
135	800 VTP -7-X		6000	7	590	85	185
136	800 VTP -13.4-X		6700	13.4	590	84.8	355

Performance parameter table

No.	Pump type	Outlet diameter mm	Capacity m³/h	Head m	Speed r/min	Efficiency %	Motor power kw
137	800 VTP -17-X	800	6000	17	590	84.5	400
138	800 VTP -15		7000	15	590	84	450
139	800 VTP -15-X		7000	15	590	84	450
140	800 VTP -20		6200	20	730	85.5	500
141	800 VTP -20-X		6200	20	730	85.5	500
142	900 VTP -4	900	8500	4	485	85.1	160
143	900 VTP -6		8500	6	485	85.3	200
144	900 VTP -8		8000	8	490	84.5	280
145	900 VTP -10		8000	10	590	84.9	315
146	900 VTP -14		8000	14	590	85.3	450
147	900 VTP -16		8000	16	590	85.2	500
148	900 VTP -20		8000	20	590	86.4	630
149	900 VTP -25		8000	25	590	85	800
150	900VTP -7-X		8000	7	490	85.1	250
151	900 VTP -12.6-X		9000	12.6	590	87	450
152	900 VTP -17-X		8000	17	590	85.5	560
153	900 VTP -15		8000	15	590	84.5	500
154	900 VTP -15-X		8000	15	590	84.5	500
155	900 VTP -20		8000	20	590	85.5	630
156	900VTP -20-X		8000	20	590	85.5	630
157	1000VTP -4	1000	9500	4	485	87	185
158	1000 VTP -7		10500	7	485	87.1	315
159	1000 VTP -9		10000	9	490	84.5	355
160	1000VTP -10		10000	10	490	85.2	400
161	1000VTP -13		10000	13	490	85.3	500
162	1000 VTP -16		10000	16	490	85.6	630
163	1000 VTP -18		10000	18	490	85.8	710
164	1000 VTP -20		10000	20	490	86.4	800
165	1000 VTP -7-X		10500	7	485	87.1	315
166	1000 VTP -13-X		10000	13	490	85.3	500
167	1000 VTP -17-X		10000	17	490	85.5	710
168	1000 VTP -15		9000	15	490	84.5	560
169	1000 VTP -15-X		9000	15	490	84.5	560
170	1000 VTP -20		9000	20	590	86	710
171	1000VTP -20-X		9000	20	590	86	710
172	1200 VTP -4	1200	13500	4	490	84.2	250
173	1200 VTP -6		15000	6	490	87.4	355
174	1200VTP -9		14500	9	490	84.5	560
175	1200 VTP -12		14500	12	490	85.2	710
176	1200VTP -14		14000	14	490	85.3	800
177	1200VTP -16		13000	16	490	86.6	800
178	1200VTP -18		15000	18	495	85.8	1000
179	1200VTP -20		16000	20	495	86.4	1250

Performance parameter table

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
180	1200 VTP -24	1200	14000	24	495	87	1250
181	1200 VTP -8-X		14400	8	490	85.4	450
182	1200 VTP -10-X		14000	10	490	85.3	560
183	1200 VTP -17-X		14000	17	490	86.5	900
184	1200 VTP -15		10000	15	490	84.5	630
185	1200 VTP -15-X		10000	15	490	84.5	630
186	1200 VTP -19		6732	19	590	88	500
187	1200 VTP -19-X		6732	19	590	88	500
188	1400VTP-9	1400	10656	10.6	370	83	500
			12816	8.5		87	
			15228	5.8		82	
189	1400VTP-10	1400	7596	10.6	370	85.6	315
			8856	8.6		88.7	
			9612	6.8		85.6	
190	1400VTP-11	1400	8172	11.4	370	85.6	350
			9792	9.2		88.8	
			10800	7.2		85.6	
191	1400VTP-12	1400	8820	12.2	370	85.6	400
			10620	10		89.1	
			11880	7.7		85.6	
192	1400VTP-12-1	1400	9432	12.8	370	85.6	450
			11412	10.7		89.6	
			12744	8.3		85.6	
193	1400VTP-13	1400	10260	13.4	370	85.6	500
			12240	11.3		89.2	
			13500	9.3		85.6	
194	1400VTP-X-9	1400	8856	8.5	370	88.7	500
			9792	9.2		88.8	
			10620	10		89.1	
			11412	10.7		89.6	
			12240	11.3		89.2	
195	1400VTP-X-14	1400	15300	18.7	370	84.5	1000
			18000	14.2		89	
			21096	8.9		79	
196	1400VTP-60	1400	12600	66	495	82	3600
			16200	60		86	
			19800	49.5		82	
197	1400VTP-50	1400	11700	57.5	495	80	3150
			15300	51.7		85	
			18000	44.5		82	
198	1400VTP-40	1400	12600	47.5	495	81	2500
			14400	44.5		83	
			16200	40		81	

Performance parameter table

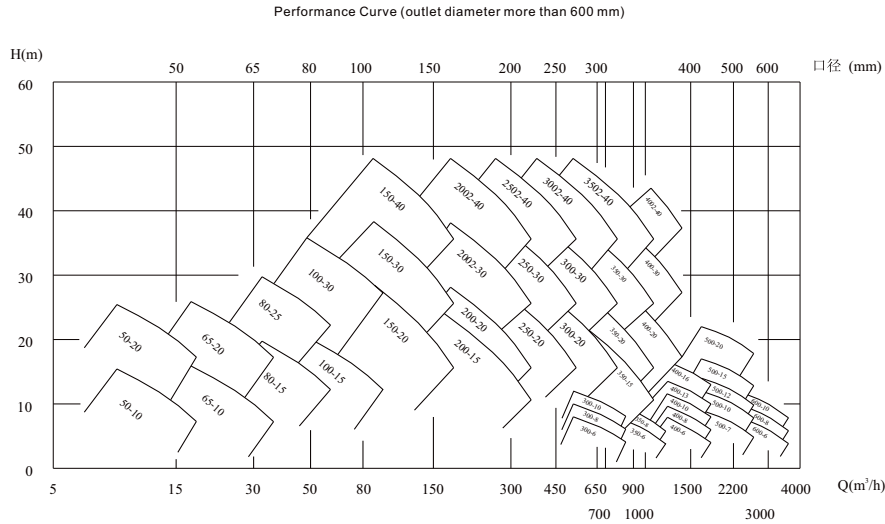
No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
199	1400VTP-x-10	1400	18000	12.7	370	83	900
			23400	9.7		88.4	
			27720	3.5		79	
201	1500VTP-26	1500	13680	29.2	495	82	1600
			16128	26.3		88.5	
			19080	20		86	
202	1500VTP-26A	1500	13428	25	495	85	1250
			16200	21		88	
			18612	15.5		81.5	
203	1500VTP-26B	1500	12960	22.4	495	82	1250
			15480	19.8		87	
			17280	15.8		83	
204	1600VTP-5	1600	18000	9.4	495	86	630
			20700	6.8		87.5	
			22500	5		83	
205	1600VTP-8	1600	13320	6	333	86	600
			14400	7		87	
			15300	8.1		88	
			16200	8.85		88	
			17640	8.9		87	
206	1600VTP-9	1600	15552	8.38	370	86.5	900
			18252	9.55		88.4	
			23328	9.35		87	
207	1600VTP-10	1600	15480	11.9	370	82.5	800
			17640	9.5		85.5	
			19400	7.1		83.5	
208	1600VTP-X-10	1600	16560	12.9	370	83	800
			19800	9.9		87.3	
			21600	7.7		83	
209	1600VTP-X-11	1600	18000	13.8	370	81.7	1000
			21600	10.9		88.7	
			24480	7.5		83	
210	1600VTP-X-12	1600	19440	14.6	370	83	1000
			22896	12		88.7	
			26280	8.1		83	
211	1600VTP-X-13	1600	21960	14.1	370	83.4	1250
			24480	12.3		87.7	
			27360	9.35		83	
212	1600VTP-X-14	1600	11200	15.7	370	86.5	600
			12024	14.6		88.8	
			12600	13		85.2	
213	1600VTPC-X-8	1600	20304	8.79	295	87.8	630
			22680	7.18		88.8	
			25560	4.15		82.3	

Performance parameter table

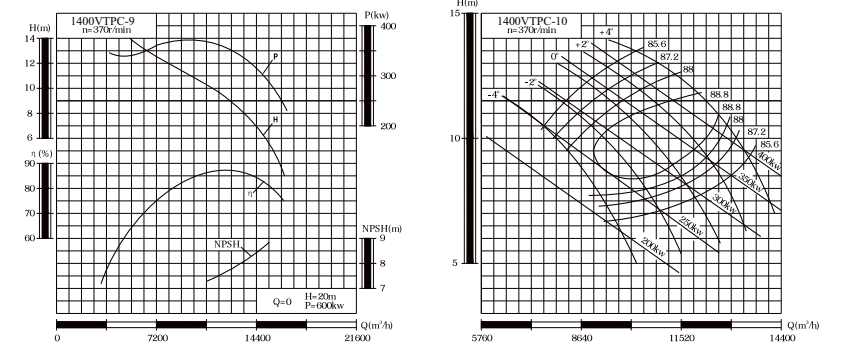
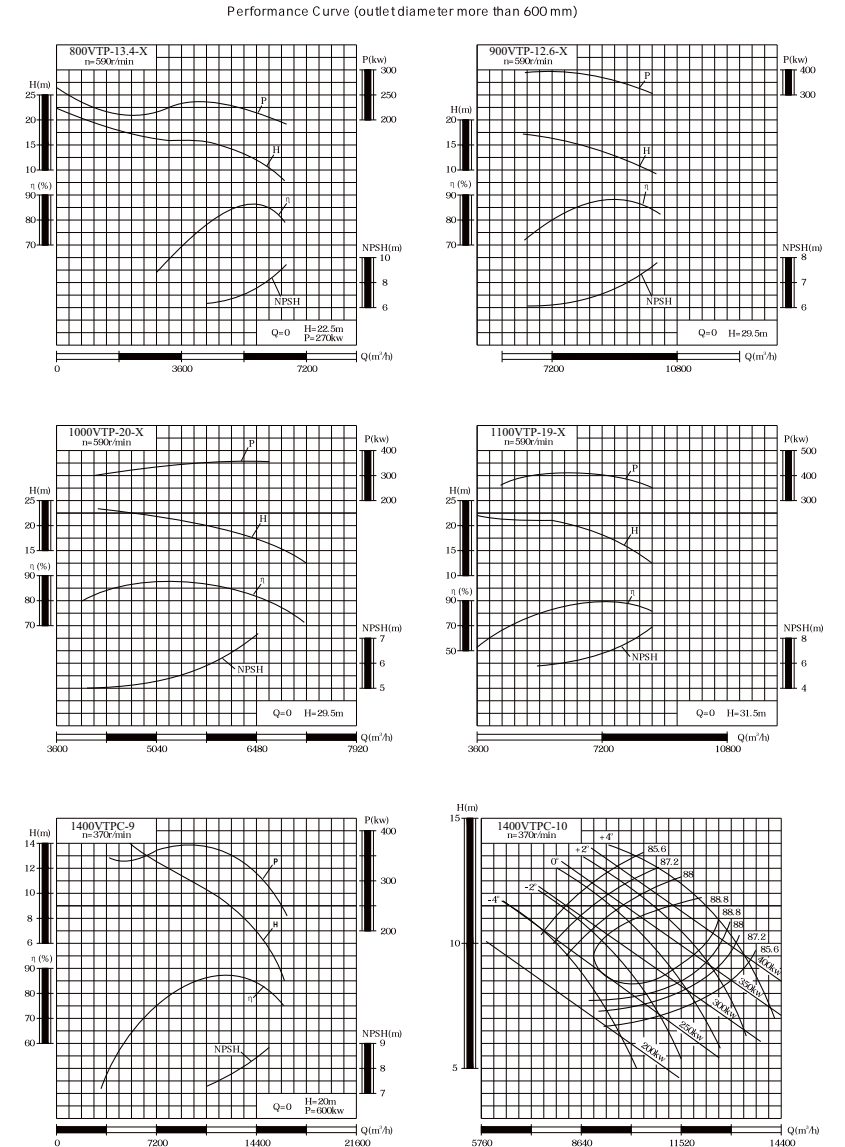
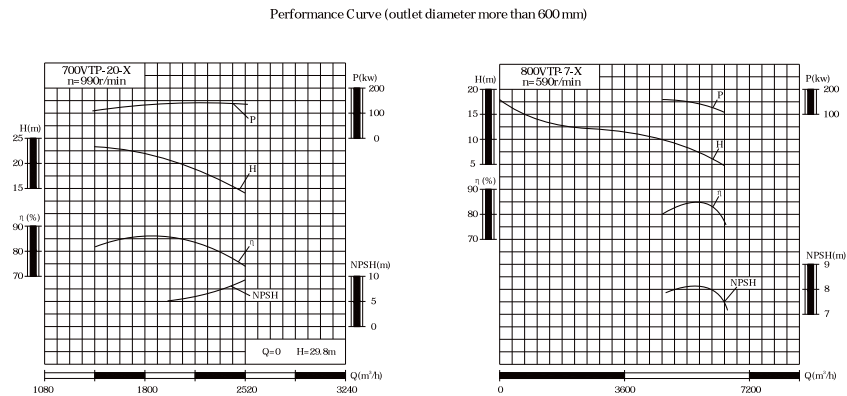
No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
211	1600VTP-12	1600	18252	16	333	87	1000
			22680	11.6		88.6	
			23400	10.3		87	
212	1600VTP-13.5	1600	18540	17.2	333	85.5	1250
			22680	13.5		88	
			24696	10.8		87	
213	1600VTP-14.6	1600	18000	19.4	375	85.5	1250
			22680	14.65		88.8	
			24120	11.84		83	
214	1600VTP-20	1600	19080	22	375	84	1600
			22680	19.57		89	
			26280	15.2		87	
215	1600VTPB-16(-6°)	1600	16920	14.1	330	81.8	1000
			18360	12.8		83	
			20880	8.9		80.3	
216	1600VTPB-16(-4°)	1600	18360	16	330	83.4	1250
			20880	13.8		85.3	
			23400	10.3		83.4	
217	1600VTPB-16(-2°)	1600	20160	17.3	330	82.4	1600
			23400	14.5		85.3	
			24840	12.9		84.7	
218	1600VTPB-16(0°)	1600	22320	17.9	330	83.5	1600
			24480	16.1		85.7	
			27360	13.5		85.3	
219	1600VTPB-16(+2°)	1600	25200	19.4	330	85	2000 双速 电机 1000
			27000	18		86	
			28800	16.4		85	
			18000	11	246	84	
			19800	10.2		86	
			21600	9		85	
220	1600VTPB-16(+4°)	1600	27360	19.1	330	86.1	2000
			29880	17.2		86.9	
			31680	15.4		86.1	
221	1600VTP-19	1600	26100	21	330	82	2000 双速 电机 1000
			30600	18.75		86	
			33300	15.4		83	
			19800	11.6	246	82	
			22500	10.5		86	
			24300	9.1		83	
222	1600VTPB-15.5(-4°)	1600	21600	18.3	295	82	1600
			28800	13.8		88	
			33300	8.8		80	

Performance parameter table

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
223	1600VTPB-15.5(-2°)	1600	36576	9.2	295	81.7	2000
			31176	14.6		88	
			25236	18.2		81.7	
224	1600VTPB-15.5(0°)	1600	37476	10.6	295	83	2000
			33948	15.8		87	
			29628	18.6		85	
225	1600VTPB-15.5(+2°)	1600	41796	11	295	78.8	2500
			36000	17.6		87	
			31356	20.2		85	
226	1600VTPB-15.5(+4°)	1600	42696	13.2	295	83	2500
			38340	18.4		86.8	
			34848	20.2		85	
227	1600VTPC-40	1600	12600	46.4	585	84.1	2500
			15300	41.9		86.9	
			16200	40		86.8	
228	1800VTPCQ-16	1800	18000	13.6	370	86	1600
			19800	14.8		87	
			21600	16		88	
			23400	17		88	
			25200	18.3		88	
229	1800VTPC-17	1800	18000	19.2	370	85	1250
			20340	17.3		88	
			23760	12.7		81	
230	1800VTPC-21	1800	17460	23	370	80	1600
			21672	21		89	
			28728	13		80	
231	1800VTPC-24-X	1800	19944	27.8	425	84.2	2000
			23760	24		87.8	
			27072	19.5		84.3	
232	1800VTPC-26-X	1800	21600	28.6	495	86.3	2500
			23760	26.1		87.5	
			25920	22.2		84.3	
233	1800VTPC-28.5-X	1800	18000	31.3	370	84.2	2500
			21600	28.5		87	
			26100	23.2		81	
234	1800VTP-34	1800	23400	37.4	370	85.1	3600
			28800	33.8		88	
			34200	27.2		81.9	
235	1800VTP-34A	1800	21024	32.6	370	85	3200
			27252	29		88	
			31788	24.5		82	

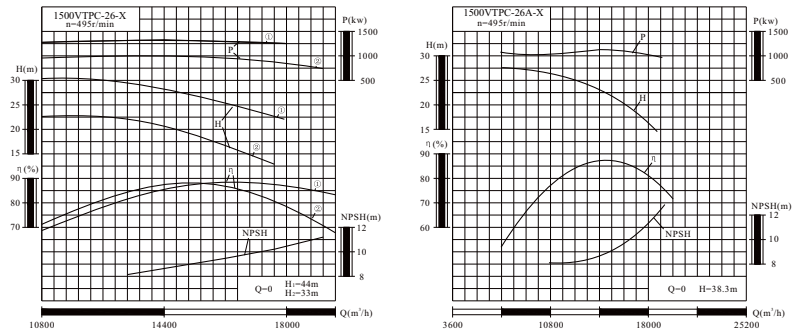
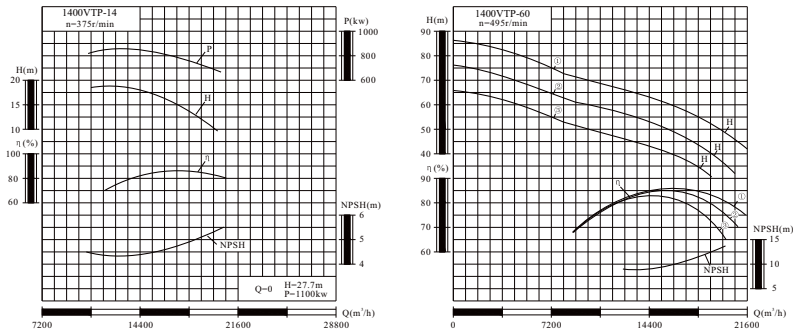
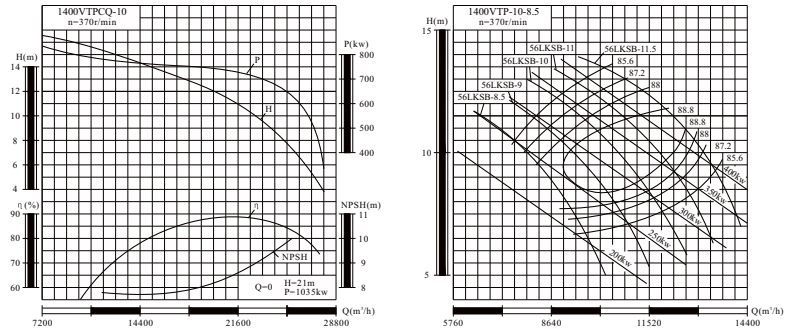


pump performance curve drawing



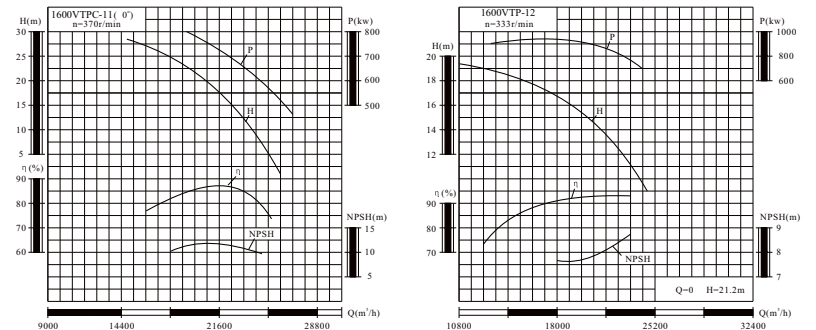
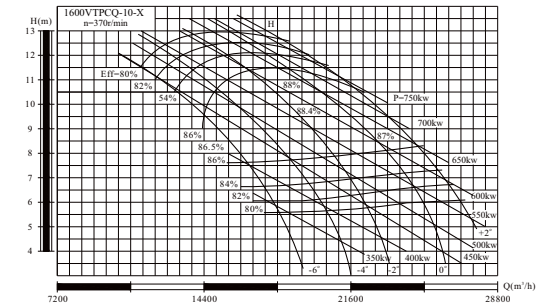
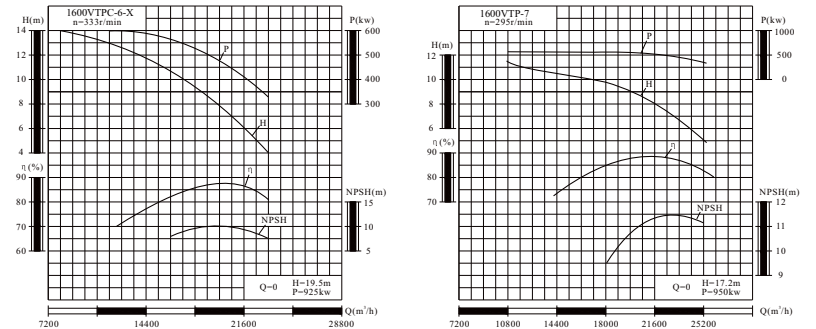
pump performance curve drawing

Performance Curve (outlet diameter more than 100 mm)

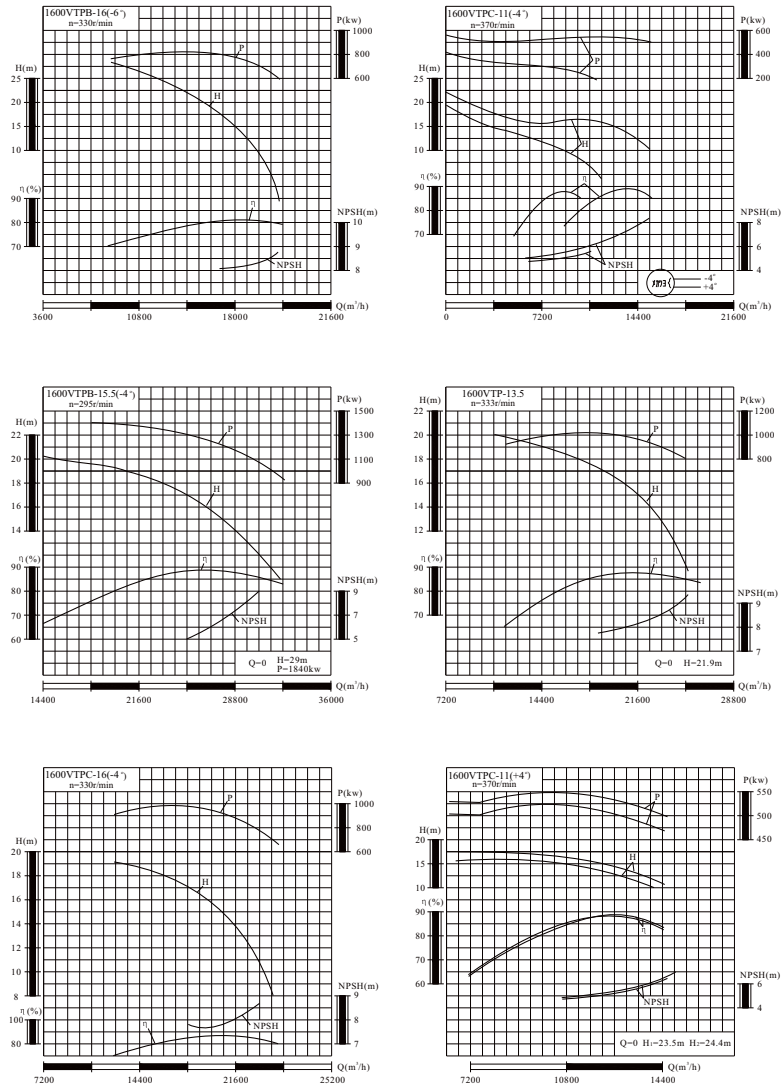


pump performance curve drawing

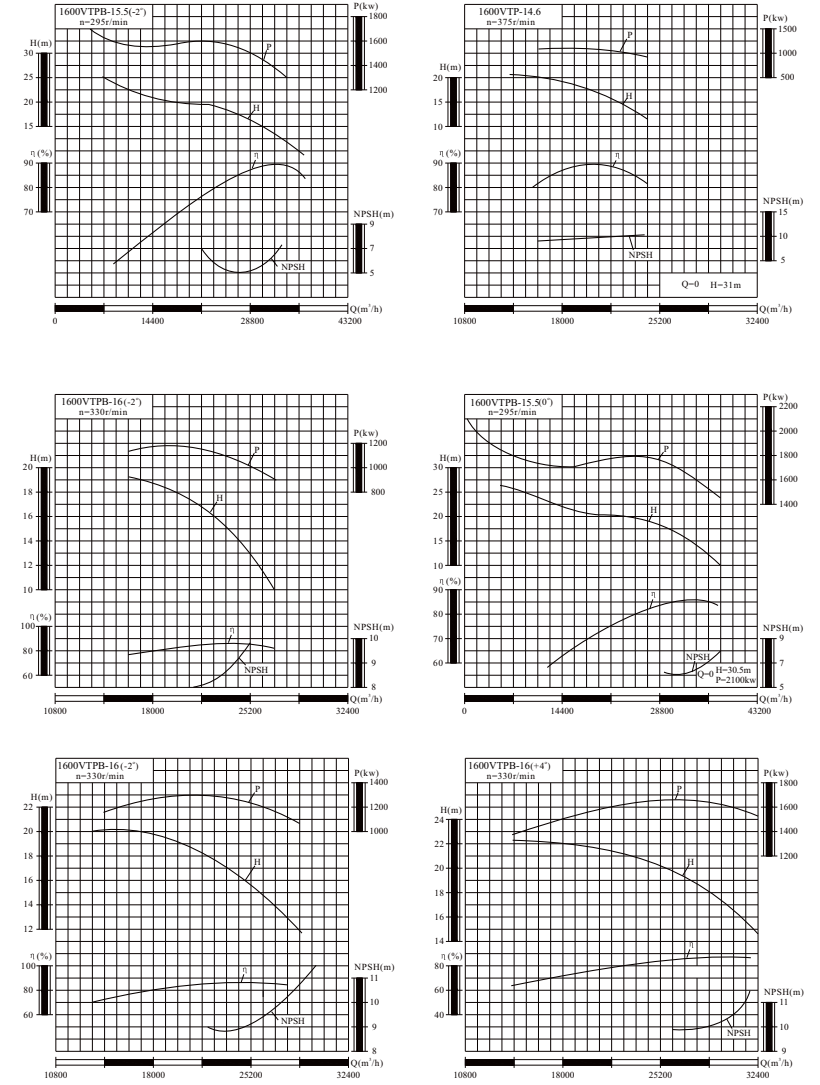
Performance Curve (outlet diameter more than 100 mm)



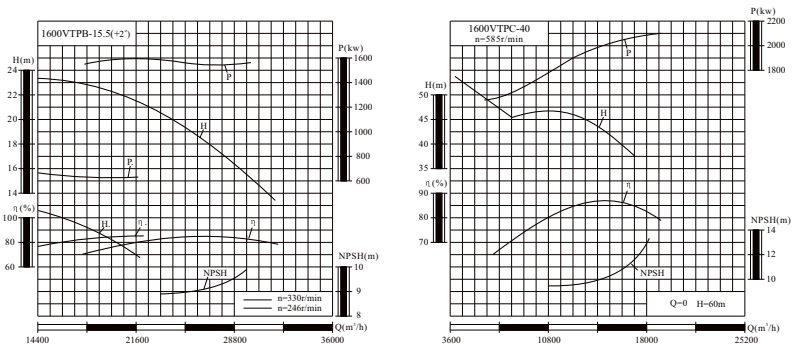
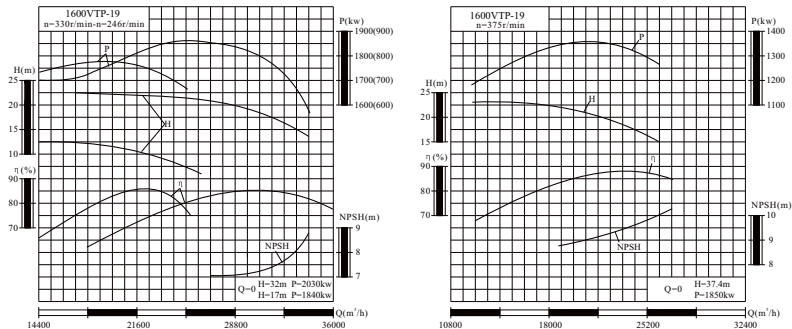
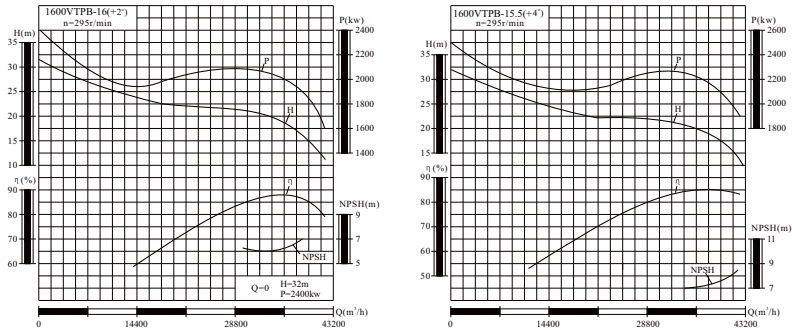
Performance Curve (outlet diameter more than 600 mm)



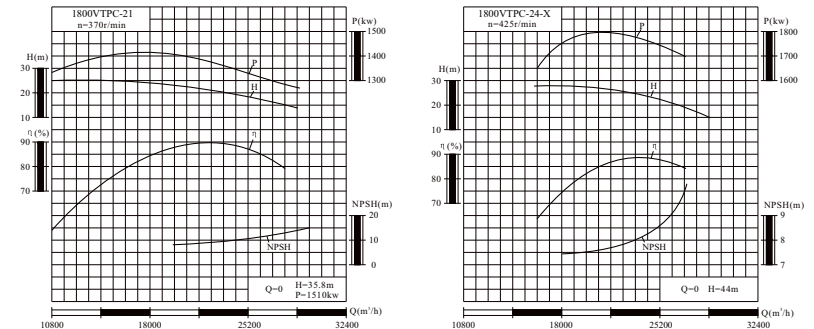
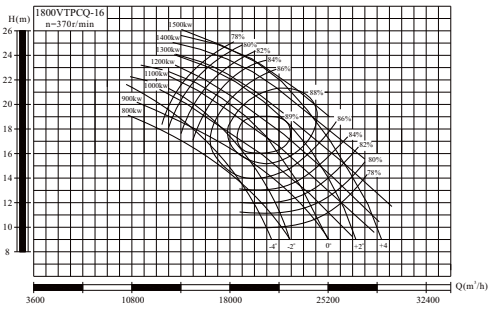
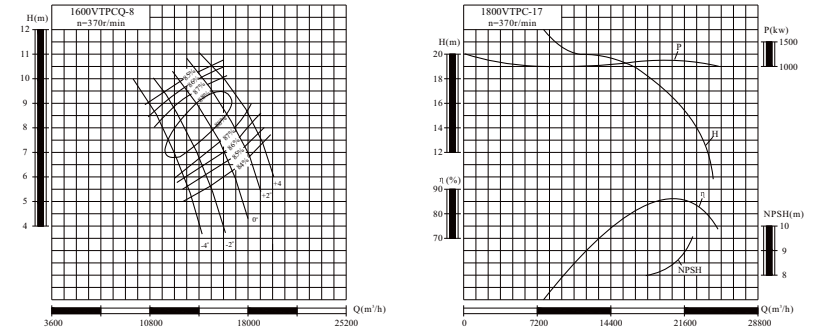
Performance Curve (outlet diameter more than 600 mm)



Performance Curve (outlet diameter more than 600 mm)

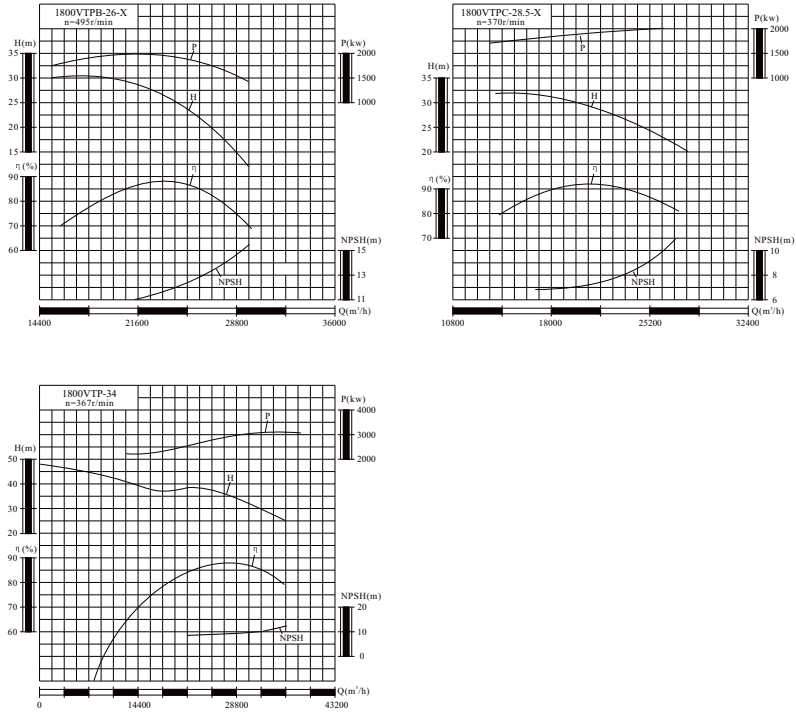


Performance Curve (outlet diameter more than 600 mm)



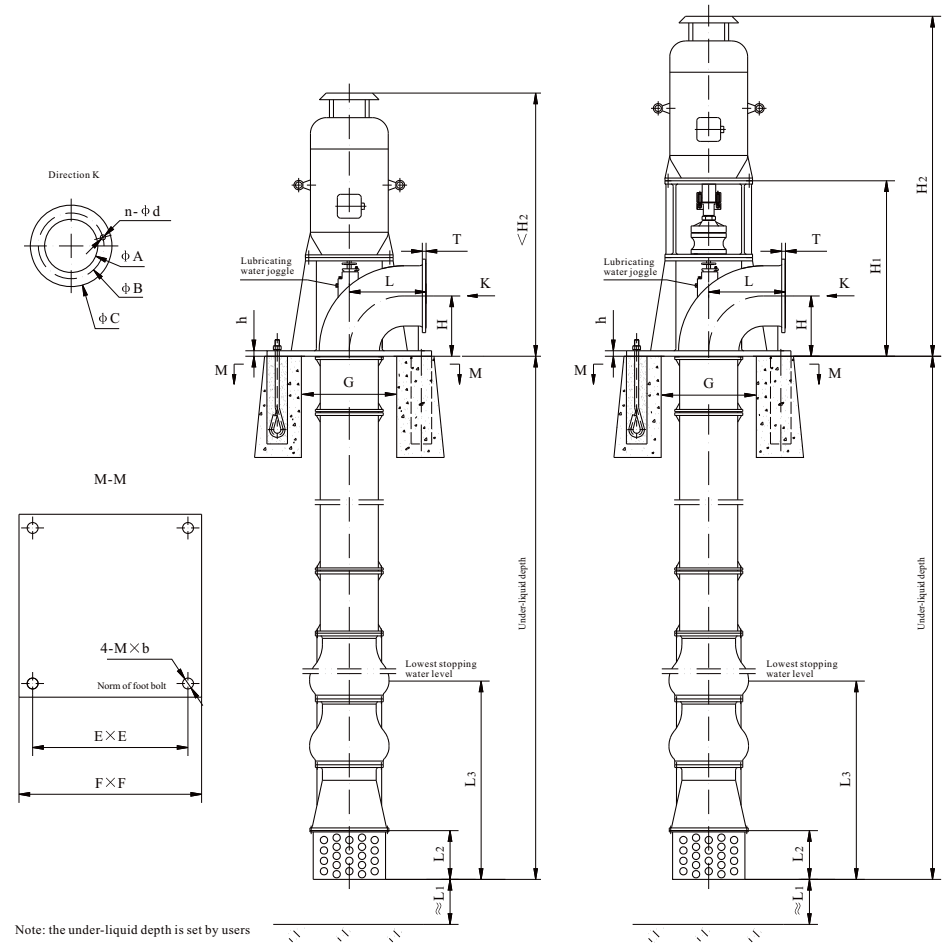
pump performance curve drawing

Performance Curve (outlet diameter more than 600 mm)



installation dimension diagram

Installation Dimension Diagram (outlet diameter mm and outlet above the base)



Fitted with YLB motor (the axial force will be borne by the motor)

Fitted with Y series motor (the axial force will be borne by the water pump)

installation dimension table

Installation Dimension Table (outlet diameter 50-400mm and outlet above the base)

No.	Pump type	Dimension																
		H	H ₁	H ₂	L	T	h	A	B	C	n-φd	E	F	M×b	G	L ₁	L ₂	L ₃
1	50 VTP -10	120	535	820	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
2	50 VTP -20	120	520	880	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
3	50 VTP -30	120	520	900	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
4	50 VTP -40	120	535	970	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
5	50 VTP -50	120	535	970	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
6	50 VTP -60	120	570	1080	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
7	50 VTP -70	120	570	1080	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
8	50 VTP -80	120	570	1080	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
9	50 VTP -90	120	570	1080	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
10	50 VTP -100	120	570	1080	180	20	20	50	125	165	4-φ19	350	400	M16×300	280	300	200	500
11	65 VTP-10	150	555	870	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
12	65 VTP -20	150	540	910	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
13	65 VTP -30	150	555	980	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
14	65 VTP -40	150	590	1080	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
15	65 VTP -50	150	590	1080	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
16	65 VTP -60	150	590	1080	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
17	65 VTP -70	150	590	1080	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
18	65 VTP-80	150	590	1130	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
19	65 VTP-90	150	590	1130	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
20	65 VTP -100	150	590	1210	200	20	20	65	145	185	4-φ19	400	450	M20×400	300	300	200	550
21	80 VTP-15	150	635	1060	200	22	25	80	160	200	8-φ19	450	500	M20×400	300	300	200	600
22	80 VTP -30	150	615	1140	200	22	25	80	160	200	8-φ19	450	500	M20×400	300	300	200	600
23	80 VTP -45	150	615	1140	200	22	25	80	160	200	8-φ19	450	500	M20×400	300	300	200	600
24	80 VTP -60	150	655	1275	200	22	25	80	160	200	8-φ19	450	500	M20×400	300	300	200	600
25	80 VTP -75	150	655	1435	200	22	25	80	160	200	8-φ19	450	500	M20×400	300	300	200	600
26	80 VTP -90	150	655	1435	200	22	25	80	160	200	8-φ19	450	500	M20×400	300	300	200	600
27	80 VTP -108	150	655	1435	200	22	25	80	160	200	8-φ19	450	500	M20×400	300	300	200	600
28	100 VTP -15	200	870	1280	250	24	30	100	180	220	8-φ19	500	550	M20×400	350	300	300	750

Installation Dimension Table (outlet diameter 50-400mm and outlet above the base)

No.	Pump type	Dimension																
		H	H ₁	H ₂	L	T	h	A	B	C	n-φd	E	F	M×b	G	L ₁	L ₂	L ₃
29	100VTP -30	200	850	1470	250	24	30	100	180	220	8-φ19	500	550	M20×400	350	300	300	750
30	100VTP -60	200	870	1610	250	24	30	100	180	220	8-φ19	500	550	M20×400	350	300	300	750
31	100VTP -90	200	870	1670	250	24	30	100	180	220	8-φ19	500	550	M20×400	350	300	300	750
32	100VTP -120	200	870	1770	250	24	30	100	180	220	8-φ19	500	550	M20×400	350	300	300	750
33	150VTP -20	240	995	1580	350	24	40	150	240	285	8-φ23	550	650	M24×500	480	300	300	900
34	150VTP -30	240	995	1660	350	24	40	150	240	285	8-φ23	550	650	M24×500	480	300	300	900
35	150VTP -40	240	995	1740	350	24	40	150	240	285	8-φ23	550	650	M24×500	480	300	300	900
36	150VTP -60	240	975	1770	350	24	40	150	240	285	8-φ23	550	650	M24×500	480	300	300	900
37	150VTP -80	240	995	1820	350	24	40	150	240	285	8-φ23	550	650	M24×500	480	300	300	900
38	150VTP -100	240	995	1880	350	24	40	150	240	285	8-φ23	550	650	M24×500	480	300	300	900
39	150VTP -120	240	995	1930	350	24	40	150	240	285	8-φ23	550	650	M24×500	480	300	300	900
40	200VTP -15	350	1070	1730	420	26	40	200	295	340	8-φ23	600	700	M24×500	500	300	300	1000
41	200VTP -20	350	1070	1810	420	26	40	200	295	340	8-φ23	600	700	M24×500	500	300	300	1000
42	200VTP -30	350	1050	1830	420	26	40	200	295	340	8-φ23	600	700	M24×500	500	300	300	1000
43	200VTP -40	350	1050	2030	420	26	40	200	295	340	8-φ23	600	700	M24×500	500	300	300	1000
44	200VTP -65	350	1070	2100	420	26	40	200	295	340	8-φ23	600	700	M24×500	500	300	300	1000
45	200VTP -90	350	1070	2220	420	26	40	200	295	340	8-φ23	600	700	M24×500	500	300	300	1000
46	250VTP -20	300	1125	1920	400	28	40	250	350	395	12-φ23	650	750	M24×500	550	300	300	1100
47	250VTP -30	300	1105	2085	400	28	40	250	350	395	12-φ23	650	750	M24×500	550	300	300	1100
48	250VTP -40	300	1105	2135	400	28	40	250	350	395	12-φ23	650	750	M24×500	550	300	300	1100
49	250VTP -50	300	1125	2275	400	28	40	250	350	395	12-φ23	650	750	M24×500	550	300	300	1100
50	250VTP -60	300	1125	2475	400	28	40	250	350	395	12-φ23	650	750	M24×500	550	300	300	1100
51	250VTP -75	300	1125	2575	400	28	40	250	350	395	12-φ23	650	750	M24×500	550	300	300	1100
52	250VTP -90	300	1125	2600	400	28	40	250	350	395	12-φ23	650	750	M24×500	550	300	300	1100
53	300VTP -6	350	1205	1945	450	28	50	300	400	445	12-φ23	700	800	M30×630	650	300	300	1200
54	300VTP -8	350	1205	2000	450	28	50	300	400	445	12-φ23	700	800	M30×630	650	300	300	1200
55	300VTP -10	350	1205	2100	450	28	50	300	400	445	12-φ23	700	800	M30×630	600	300	300	1200
56	300VTP -15	350	1205	2000	450	28	50	300	400	445	12-φ23	700	800	M30×630	600	300	300	1200

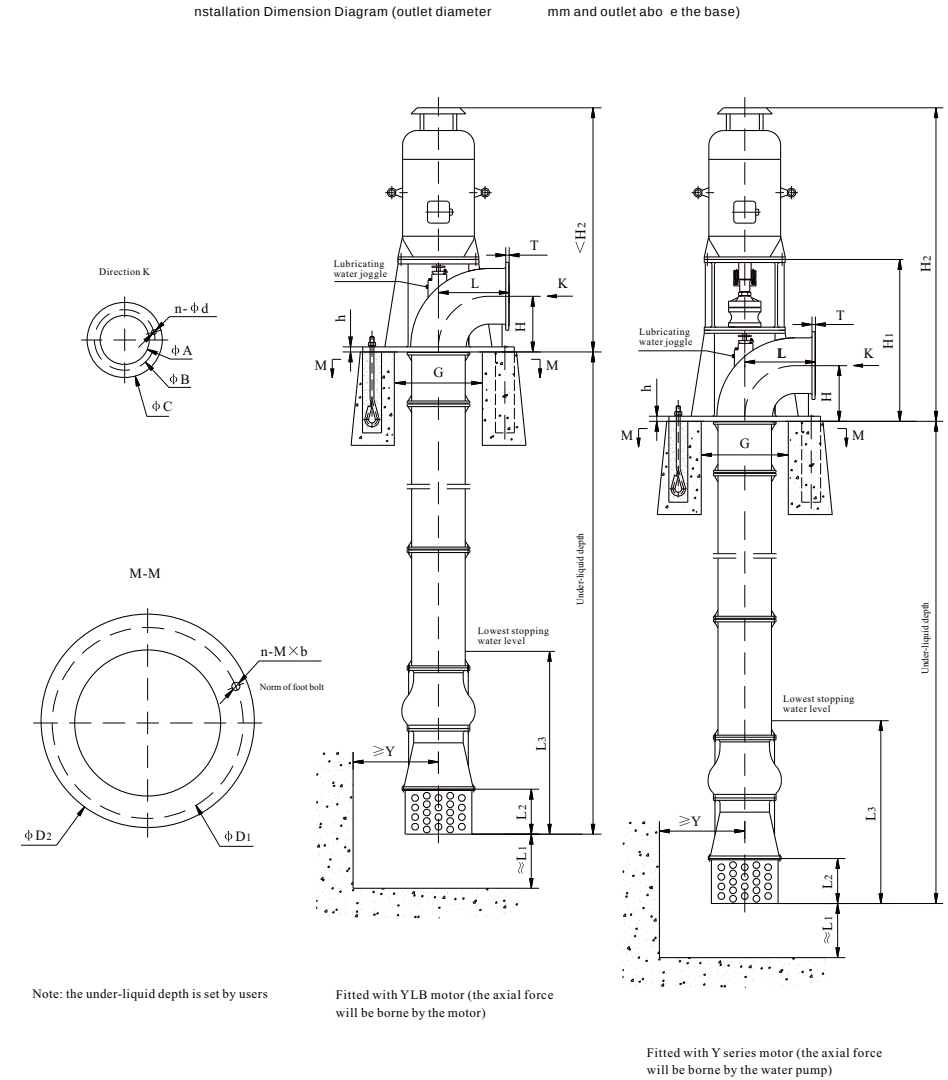
installation dimension table

installation dimension table

No.	Pump type	Dimension									
		H	H ₁	H ₂	L	T	h	A	B	C	n-φd
57	300VTP-20	350	1205	2100	450	28	50	300	400	445	12-φ23
58	300VTP-30	350	1205	2185	450	28	50	300	400	445	12-φ23
59	300VTP-40	350	1225	2785	450	28	50	300	400	445	12-φ23
60	300VTP-60	350	1225	2785	450	28	50	300	400	445	12-φ23
61	300VTP-80	350	1225	2870	450	28	50	300	400	445	12-φ23
62	350VTP-4	400	1345	2010	500	30	50	350	460	505	16-φ23
63	350VTP-6	400	1345	2085	500	30	50	350	460	505	16-φ23
64	350VTP-8	400	1345	2115	500	30	50	350	460	505	16-φ23
65	350VTP-10	400	1345	2140	500	30	50	350	460	505	16-φ23
66	350VTP-15	400	1325	2305	500	30	50	350	460	505	16-φ23
67	350VTP-20	400	1325	2355	500	30	50	350	460	505	16-φ23
68	350VTP-30	400	1450	2940	500	30	50	350	460	505	16-φ23
69	350VTP-40	400	1450	3030	500	30	50	350	460	505	16-φ23
70	350VTP-60	400	1450	3125	500	30	50	350	460	505	16-φ23
71	350VTP-80	400	1450	3150	500	30	50	350	460	505	16-φ23
72	400VTP-4	450	1570	2310	550	32	50	400	515	565	16-φ28
73	400VTP-6	450	1570	2365	550	32	50	400	515	565	16-φ28
74	400VTP-8	450	1570	2465	550	32	50	400	515	565	16-φ28
75	400VTP-10	450	1570	2550	550	32	50	400	515	565	16-φ28
76	400VTP-13	450	1570	2800	550	32	50	400	515	565	16-φ28
77	400VTP-16	450	1570	2820	550	32	50	400	515	565	16-φ28
78	400VTP-20	450	1550	2800	550	32	50	400	515	565	16-φ28
79	400VTP-25	450	1550	2900	550	32	50	400	515	565	16-φ28
80	400VTP-30	450	1610	2960	550	32	50	400	515	565	16-φ28
81	400VTP-35	450	1610	3145	550	32	50	400	515	565	16-φ28
82	400VTP-40	450	1610	3060	550	32	50	400	515	565	16-φ28
83	400VTP-50	450	1610	3145	550	32	50	400	515	565	16-φ28
84	400VTP-60	450	1610	3145	550	32	50	400	515	565	16-φ28

Installation Dimension Table (outlet diameter 50-400mm and outlet above the base)

installation dimension diagram



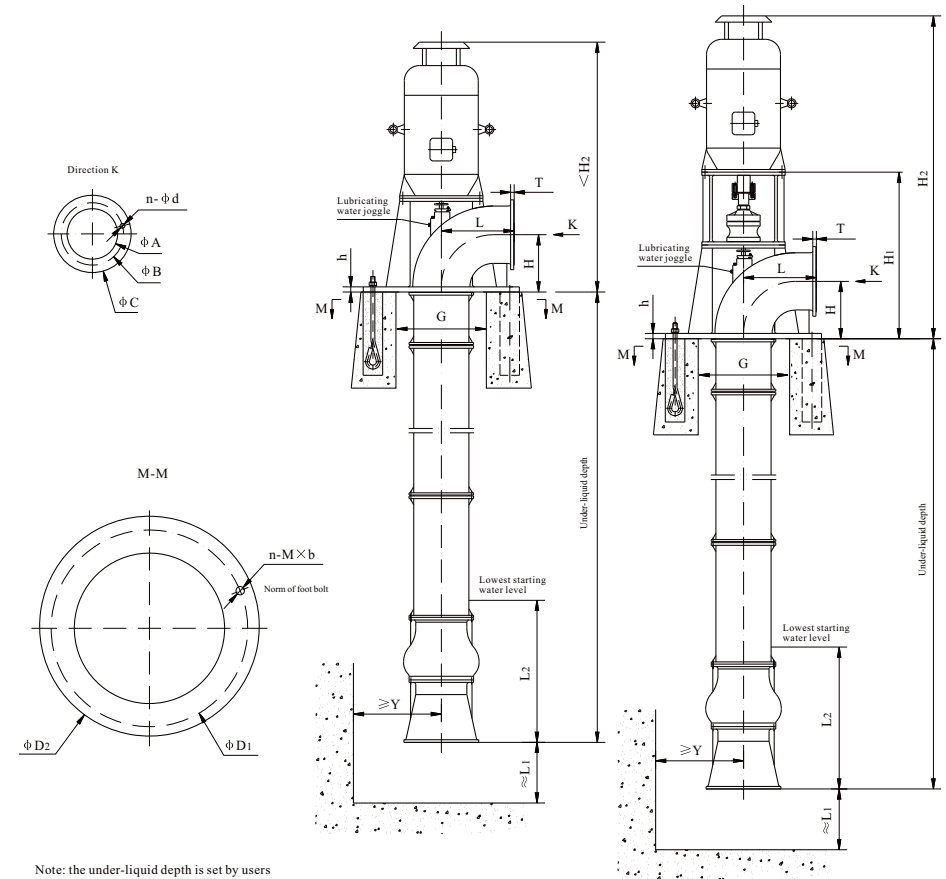
installation dimension table

mm and outlet above the base

No	Pump type	Dimension									
1	500VTP-4	550	1500	2400	700	34	50	500	620	670	20-φ28
2	500VTP-6	550	1500	2530	700	34	50	500	620	670	20-φ28
3	500VTP-8	550	1500	2750	700	34	50	500	620	670	20-φ28
4	500VTP-10	550	1500	2850	700	34	50	500	620	670	20-φ28
5	500VTP-12	550	1600	3050	700	34	50	500	620	670	20-φ28
6	500VTP-15	550	1600	3050	700	34	50	500	620	670	20-φ28
7	500VTP-20	550	1600	3150	700	34	50	500	620	670	20-φ28
8	500VTP-25	550	1800	3350	700	34	50	500	620	670	20-φ28
9	500VTP-30	550	1800	3550	700	34	50	500	620	670	20-φ28
10	500VTP-35	550	1900	3850	700	34	50	500	620	670	20-φ28
11	500VTP-40	550	1900	4100	700	34	50	500	620	670	20-φ28
12	600VTP-4	650	2000	3030	800	36	50	600	725	780	20-φ30
13	600VTP-6	650	2000	3350	800	36	50	600	725	780	20-φ30
14	600VTP-8	650	2000	3450	800	36	50	600	725	780	20-φ30
15	600VTP-10	650	2000	3550	800	36	50	600	725	780	20-φ30
16	600VTP-12	650	2000	3450	800	36	50	600	725	780	20-φ30
17	600VTP-15	650	2000	3550	800	36	50	600	725	780	20-φ30
18	600VTP-20	650	2000	3650	800	36	50	600	725	780	20-φ30
19	600VTP-25	650	2000	3800	800	36	50	600	725	780	20-φ30
20	600VTP-30	650	2100	4100	800	36	50	600	725	780	20-φ30
21	600VTP-35	650	2100	4200	800	36	50	600	725	780	20-φ30
22	600VTP-40	650	2150	4350	800	36	50	600	725	780	20-φ30

installation dimension diagram

Installation Dimension Diagram (outlet diameter less than 100 mm and outlet above the base)



Fitted with YLB motor (the axial force will be borne by the motor)

Fitted with Y series motor (the axial force will be borne by the water pump)

installation dimension table

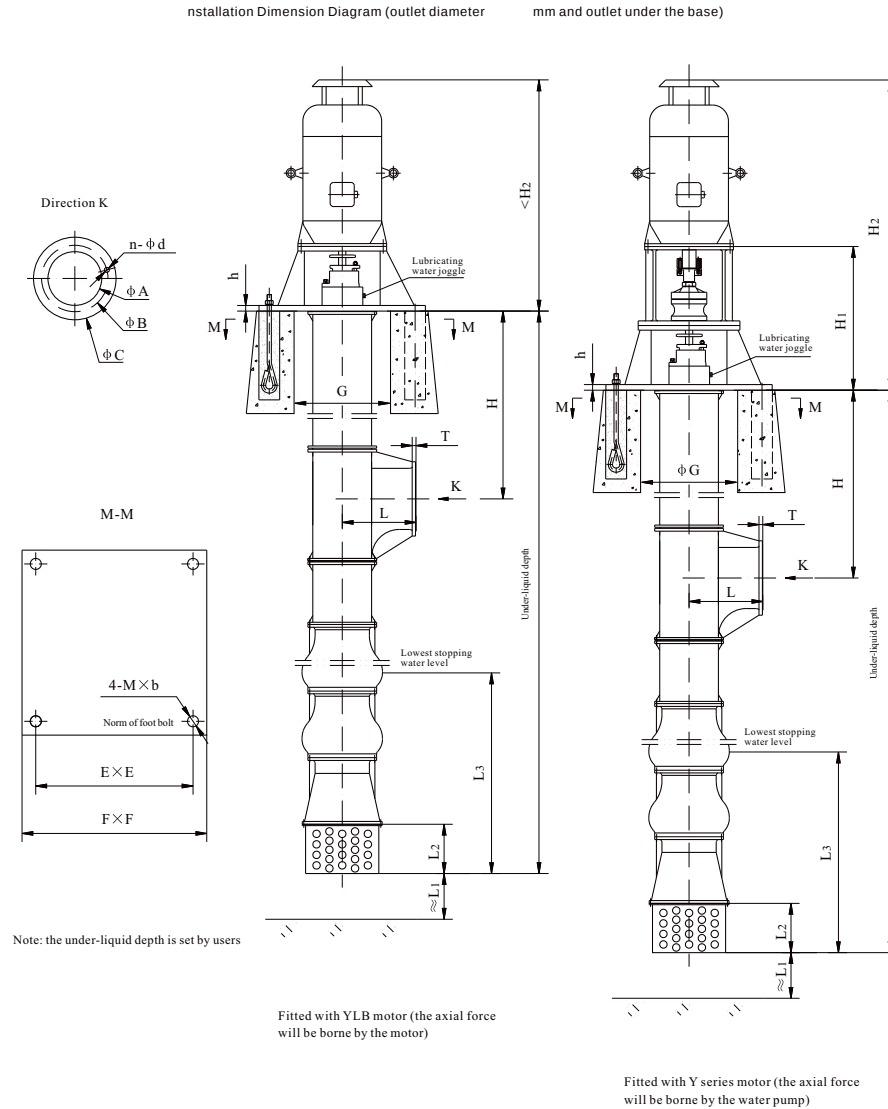
mm and outlet above the base

No	Pump type	Dimension																
				L	T	h		C	n φd	D	D	n ×b	L	L				
1	700VTP-4	700	2300	4350	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
2	700VTP-6	700	2300	4350	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
3	700VTP-8	700	2350	4400	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
4	700VTP-10	700	2350	4450	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
5	700VTP-12	700	2400	4500	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
6	700VTP-15	700	2400	4650	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
7	700VTP-20	700	2400	4700	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
8	700VTP-25	700	2500	4750	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
9	700VTP-30	700	2500	4850	700	30	40	700	810	860	24-φ26	1500	1700	8-M36×630	1200	600	1400	800
10	800VTP-4	800	2300	4350	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
11	800VTP-6	800	2350	4400	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
12	800VTP-8	800	2350	4450	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
13	800VTP-10	800	2400	4500	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
14	800VTP-12	800	2400	4650	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
15	800VTP-15	800	2400	4700	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
16	800VTP-20	800	2500	4750	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
17	800VTP-25	800	2500	4850	800	30	40	800	920	975	24-φ30	1600	1800	8-M36×630	1300	700	1500	900
18	900VTP-4	900	2500	4750	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
19	900VTP-6	900	2500	4750	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
20	900VTP-8	900	2500	4800	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
21	900VTP-10	900	2500	4800	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
22	900VTP-14	900	2600	4850	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
23	900VTP-16	900	2650	4950	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
24	900VTP-20	900	2700	5050	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
25	900VTP-25	900	2700	5100	900	36	40	900	1020	1075	24-φ30	1800	2000	12-M36×630	1500	800	1600	1000
26	1000VTP-4	1000	2500	4800	1000	36	40	1000	1120	1175	28-φ30	1900	2100	16-M36×630	1600	900	1700	1100
27	1000VTP-6	1000	2600	4850	1000	36	40	1000	1120	1175	28-φ30	1900	2100	16-M36×630	1600	900	1700	1100
28	1000VTP-9	1000	2650	4950	1000	36	40	1000	1120	1175	28-φ30	1900	2100	16-M36×630	1600	900	1700	1100
29	1000VTP-10	1000	2800	5350	1000	36	40	1000	1120	1175	28-φ30	1900	2100	16-M36×630	1600	900	1700	1100
30	1000VTP-16	1000	2800	5500	1000	36	50	1000	1120	1175	28-φ30	1900	2100	16-M36×630	1600	900	1700	1100
31	1000VTP-18	1000	2800	5550	1000	36	50	1000	1120	1175	28-φ30	1900	2100	16-M36×630	1600	900	1700	1100
32	1000VTP-20	1000	2800	5700	1000	36	50	1000	1120	1175	28-φ30	1900	2100	16-M36×630	1600	900	1700	1100
33	1200VTP-4	1100	2700	5550	1200	36	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400

mm and outlet above the base

No	Pumptype	Dimension																
				L	T	h		C	n φd	D	D	n ×b		L	L			
34	1200VTP-6	1100	2700	5600	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
35	1200VTP-9	1100	2700	5650	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
36	1200VTP-12	1100	2700	5800	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
37	1200VTP-14	1100	2800	5950	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
38	1200VTP-16	1100	2800	6100	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
39	1200VTP-18	1100	2800	6150	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
40	1200VTP-20	1100	2800	6300	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
41	1200VTP-24	1100	2900	6400	1200	40	50	1200	1340	1405	32-φ33	2000	2200	16-M36×630	1700	1100	1800	1400
42	1400VTP-14	1300	3400	5800	1400	44	50	1400	1560	1630	36-φ36	2400	2600	16-M42×800	2000	1400	2100	1600
43	1400VTP-60	1300	3600	7200	1400	44	60	1400	1590	1675	36-φ42	2400	2600	16-M42×800	2000	1400	2100	1600
44	1400VTP-60A	1300	3600	6800	1400	44	60	1400	1590	1675	36-φ42	2400	2600	16-M42×800	2000	1400	2100	1600
45	1400VTP-60B	1300	3600	6800	1400	44	60	1400	1590	1675	36-φ42	2400	2600	16-M42×800	2000	1400	2100	1600
46	1400VTP-10	1300	3400	5700	1400	44	50	1400	1560	1630	36-φ36	2400	2600	16-M42×800	2000	1400	2100	1600
47	1500VTP-26	1400	4200	6400	1500	45	50	1500	1660	1730	36-φ36	2500	2700	16-M48×1000	2100	1500	2300	1800
48	1600VTP-7	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
49	1600VTP-12	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
50	1600VTP-15.5	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
51	1800VTP-14.6	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
52	1600VTP-20	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
53	1600VTP-16(-6°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
54	1600VTP-16(-4°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
55	1600VTP-16(-2°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
56	1600VTP-16(0°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
57	1600VTP-16(+2°)	1500	4800	6800	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
58	1600VTP-16(+4°)	1500	4800	6800	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
59	1600VTP-19	1500	4900	7200	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
60	1600VTP-15.5(-4°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
61	1800VTP-15.5(-2°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
62	1600VTP-15.5(0°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
63	1600VTP-15.5(+2°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
64	1600VTP-15.5(+4°)	1500	4700	6600	1600	48	60	1600	1760	1830	40-φ36	2700	2900	20-M48×1000	2200	1600	2500	2000
65	1800VTP-34	1600	5500	8650	2000	50	60	1800	1970	2045	44-φ42	2800	3000	28-M48×1000	2300	2000	3000	2500
66	1800VTP-3A	1600	5500	8650	2000	50	60	1800	1970	2045	44-φ42	2800	3000	28-M48×1000	2300	2000	3000	2500

installation dimension diagram



installation dimension table

Installation Dimension Table (outlet diameter mm and outlet under the base)

No	Pump type	Dimension										mm and outlet under the base									
		L	L	L	L	L	L	L	L	L	L	φd	C	h	T	L					
1	50VTP-10	500	450	760	120	20	20	20	20	20	20	4-φ19	165	125	50	50	50	50	50	50	50
2	50VTP-20	500	450	785	120	20	20	20	20	20	20	4-φ19	165	125	50	50	50	50	50	50	50
3	65VTP-10	550	500	820	150	20	20	20	20	20	20	4-φ19	185	145	65	65	65	65	65	65	65
4	65VTP-20	550	500	840	150	20	20	20	20	20	20	4-φ19	185	145	65	65	65	65	65	65	65
5	80VTP-15	600	550	890	150	22	20	20	20	20	20	8-φ19	200	160	80	80	80	80	80	80	80
6	80VTP-25	600	550	930	150	22	20	20	20	20	20	8-φ19	200	160	80	80	80	80	80	80	80
7	100VTP-15	700	620	1015	200	24	20	20	20	20	20	8-φ19	220	180	100	100	100	100	100	100	100
8	100VTP-30	700	650	1055	200	24	20	20	20	20	20	8-φ19	220	180	100	100	100	100	100	100	100
9	150VTP-20	800	695	1280	250	26	25	25	25	25	25	8-φ23	285	240	150	150	150	150	150	150	150
10	150VTP-30	800	695	1290	250	26	25	25	25	25	25	8-φ23	285	240	150	150	150	150	150	150	150
11	150VTP-40	800	695	1340	250	26	25	25	25	25	25	8-φ23	285	240	150	150	150	150	150	150	150
12	200VTP-15	900	770	1330	250	26	25	25	25	25	25	8-φ23	340	295	200	200	200	200	200	200	200
13	200VTP-22	900	770	1410	250	26	25	25	25	25	25	8-φ23	340	295	200	200	200	200	200	200	200
14	200VTP-30	900	770	1430	250	26	25	25	25	25	25	8-φ23	340	295	200	200	200	200	200	200	200
15	200VTP-40	900	770	1530	250	26	25	25	25	25	25	8-φ23	340	295	200	200	200	200	200	200	200
16	250VTP-20	1000	825	1495	300	28	25	25	25	25	25	12-φ23	395	350	250	250	250	250	250	250	250
17	250VTP-30	1000	905	1675	300	28	25	25	25	25	25	12-φ23	395	350	250	250	250	250	250	250	250
18	250VTP-40	1000	905	1675	300	28	25	25	25	25	25	12-φ23	395	350	250	250	250	250	250	250	250
19	300VTP-6	1100	950	1945	300	28	25	25	25	25	25	12-φ23	445	400	300	300	300	300	300	300	300
20	300VTP-8	1100	950	2000	300	28	25	25	25	25	25	12-φ23	445	400	300	300	300	300	300	300	300
21	300VTP-10	1100	950	2100	300	28	25	25	25	25	25	12-φ23	445	400	300	300	300	300	300	300	300
22	300VTP-15	1100	1005	2000	300	28	25	25	25	25	25	12-φ23	445	400	300	300	300	300	300	300	300
23	300VTP-20	1100	1005	2100	300	28	25	25	25	25	25	12-φ23	445	400	300	300	300	300	300	300	300
24	300VTP-2-30	1100	1005	2185	300	28	25	25	25	25	25	12-φ23	445	400	300	300	300	300	300	300	300
25	300VTP-2-40	1100	1025	2785	300	28	25	25	25	25	25	12-φ23	445	400	300	300	300	300	300	300	300
26	350VTP-4	1200	1045	1710	350	30	30	30	30	30	30	16-φ23	505	460	350	350	350	350	350	350	350
27	350VTP-6	1200	1045	1785	350	30	30	30	30	30	30	16-φ23	505	460	350	350	350	350	350	350	350
28	350VTP-8	1200	1045	1815	350	30	30	30	30	30	30	16-φ23	505	460	350	350	350	350	350	350	350
29	350VTP-10	1200	1045	1840	350	30	30	30	30	30	30	16-φ23	505	460	350	350	350	350	350	350	350
30	350VTP-15	1200	1125	1905	350	30	30	30	30	30	30	16-φ23	505	460	350	350	350	350	350	350	350

installation dimension table

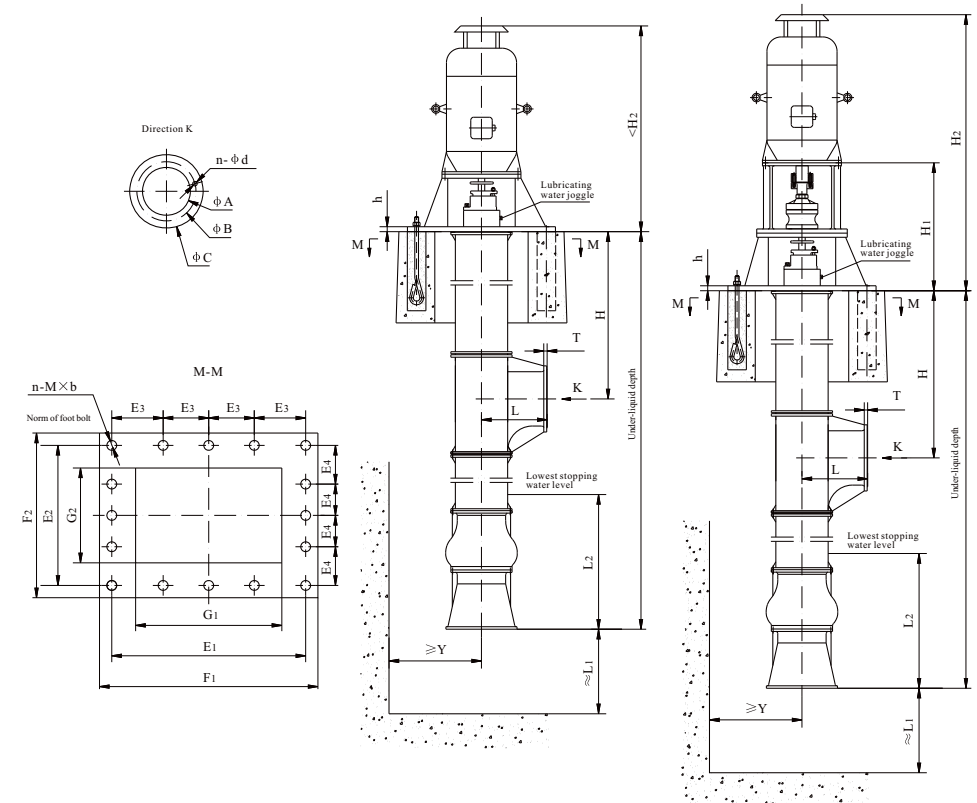
mm and outlet under the base

installation Dimension Table (outlet diameter

No	Pump type	Dimension															
				L	T	h		C	n φ d		×b		L	L	L		
31	350VTP-20	1200	1125	2055	350	30	350	460	505	16-φ23	900	1000	M30×630	800	300	300	1250
32	350VTP2-30	1200	1125	2540	350	30	350	460	505	16-φ23	900	1000	M30×630	800	300	300	1250
33	350VTP2-40	1200	1125	2630	350	30	350	460	505	16-φ23	900	1000	M30×630	800	300	300	1250
34	400VTP-4	1300	1270	2010	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
35	400VTP-6	1300	1270	2065	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
36	400VTP-8	1300	1270	2465	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
37	400VTP-10	1300	1270	2250	400	40	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
38	400VTP-13	1300	1270	2300	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
39	400VTP-16	1300	1270	2520	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
40	400VTP-20	1300	1350	2600	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
41	400VTP-25	1300	1350	2600	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
42	400VTP-30	1300	1350	2660	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
43	400VTP2-40	1300	1350	2760	400	32	400	515	565	16-φ28	1100	1250	M30×630	1000	350	400	1600
44	500VTP-4	1500	1300	2200	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
45	500VTP-6	1500	1300	2330	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
46	500VTP-8	1500	1300	2550	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
47	500VTP-10	1500	1300	2650	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
48	500VTP-12	1500	1400	2850	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
49	500VTP-15	1500	1400	2850	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
50	500VTP-20	1500	1400	2950	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
51	500VTP-25	1500	1500	3050	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
52	500VTP-30	1500	1500	3250	500	34	40	500	620	20-φ28	1400	1500	M36×630	1250	450	500	1800
53	600VTP-4	1800	1700	2730	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900
54	600VTP-6	1800	1700	3050	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900
55	600VTP-8	1800	1700	3150	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900
56	600VTP-10	1800	1700	3250	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900
57	600VTP-12	1800	1700	3350	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900
58	600VTP-15	1800	1700	3400	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900
59	600VTP-20	1800	1800	3450	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900
60	600VTP-25	1800	1800	3600	600	36	40	600	725	20-φ30	1500	1600	M42×800	1300	550	600	1900

installation dimension diagram

Installation Dimension Diagram (outlet diameter less than mm and outlet under the base)



Note: H and the under-liquid depth is set by users

Fitted with YLB motor (the axial force will be borne by the motor)

Fitted with Y series motor (the axial force will be borne by the water pump)

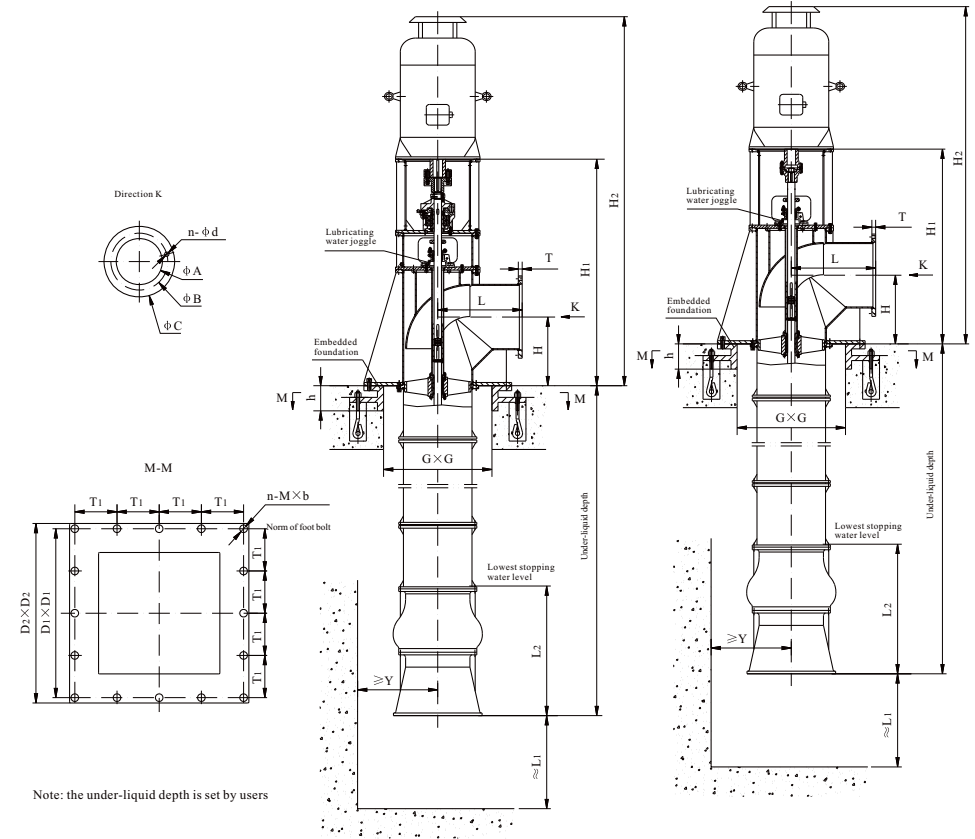
installation dimension table

mm and outlet under the base

No	Pump type	Dimension																				
		L	T	h	C	n φ d					n × b		L	L								
1	700VTP-10-X	1900	3950	700	30	40	700	810	860	24-φ 26	1800	1500	600	500	2000	1700	12-M30×G30	1500	1200	600	1400	800
2	700VTP-25-X	1900	4250	700	30	40	700	810	860	24-φ 26	1800	1500	600	500	2000	1700	12-M30×G30	1500	1200	600	1400	800
3	800VTP-7-X	2000	4050	750	30	40	800	920	975	24-φ 30	1950	1650	650	550	2100	1800	12-M30×G30	1600	1300	700	1500	900
4	800VTP-13.4-X	2050	4100	750	30	40	800	920	975	24-φ 30	1950	1650	650	550	2100	1800	12-M30×G30	1600	1300	700	1500	900
5	800VTP-17-X	2050	4150	750	30	40	800	920	975	24-φ 30	1950	1650	650	550	2100	1800	12-M30×G30	1600	1300	700	1500	900
6	900VTP-7-X	2200	4450	850	32	40	900	1020	1075	24-φ 30	2100	1800	700	600	2300	2000	12-M36×G30	1800	1500	800	1600	1000
7	900VTP-12.6-X	2200	4450	850	32	40	900	1020	1075	24-φ 30	2100	1800	700	600	2300	2000	12-M36×G30	1800	1500	800	1600	1000
8	900VTP-17-X	2200	4500	850	32	40	900	1020	1075	24-φ 30	2100	1800	700	600	2300	2000	12-M36×G30	1800	1500	800	1600	1000
9	1000VTP-7-X	2500	5200	900	35	50	1000	1120	1175	28-φ 30	2300	1900	575	475	2500	2100	16-M36×G30	2000	1600	900	1700	1100
10	1000VTP-13-X	2500	5250	900	35	50	1000	1120	1175	28-φ 30	2300	1900	575	475	2500	2100	16-M36×G30	2000	1600	900	1700	1100
11	1000VTP-17-X	2500	5400	900	35	50	1000	1120	1175	28-φ 30	2300	1900	575	475	2500	2100	16-M36×G30	2000	1600	900	1700	1100
12	1200VTP-8-X	2700	5500	1000	35	50	1200	1340	1405	32-φ 33	2400	2000	600	500	2600	2200	16-M36×G30	2100	1700	1100	1800	1400
13	1200VTP-10-X	2700	5650	1000	35	50	1200	1340	1405	32-φ 33	2400	2000	600	500	2600	2200	16-M36×G30	2100	1700	1100	1800	1400
14	1200VTP-17-X	2800	5950	1000	35	50	1200	1340	1405	32-φ 33	2400	2000	600	500	2600	2200	16-M36×G30	2100	1700	1100	1800	1400
15	1400VTP-9-X	3100	5700	1200	40	50	1400	1560	1630	36-φ 36	2800	2300	700	575	3000	2500	16-M42×800	2500	2000	1400	2100	1600
16	1400VTP-14-X	3100	6200	1200	40	50	1400	1560	1630	36-φ 36	2800	2300	700	575	3000	2500	16-M42×800	2500	2000	1400	2100	1600
17	1500VTP-26-X	4200	6400	1300	45	50	1500	1660	1730	36-φ 36	2900	2400	725	600	3100	2600	16-M42×800	2600	2100	1500	2300	1800
18	1600VTP-7-X	4700	6600	1400	50	60	1600	1760	1830	40-φ 36	3200	2600	640	520	3400	2800	20-M48×1000	2800	2200	1600	2500	2000
19	1600VTP-14.6-X	4700	6600	1400	50	60	1600	1760	1830	40-φ 36	3200	2600	640	520	3400	2800	20-M48×1000	2800	2200	1600	2500	2000
20	1600VTP-20-X	4700	6600	1400	50	60	1600	1760	1830	40-φ 36	3200	2600	640	520	3400	2800	20-M48×1000	2800	2200	1600	2500	2000
21	1600VTP-19-X	4700	6600	1400	50	60	1600	1760	1830	40-φ 36	3200	2600	640	520	3400	2800	20-M48×1000	2800	2200	1600	2500	2000
22	1800VTP-7-X	5200	7950	1600	50	60	1800	1970	2045	44-φ 42	3400	2800	680	560	3600	3000	20-M48×1000	3000	2400	2000	3000	2500
23	1800VTP-10-X	5200	8250	1600	50	60	1800	1970	2045	44-φ 42	3400	2800	680	560	3600	3000	20-M48×1000	3000	2400	2000	3000	2500
24	1800VTP-13-X	5200	8450	1600	50	60	1800	1970	2045	44-φ 42	3400	2800	680	560	3600	3000	20-M48×1000	3000	2400	2000	3000	2500
25	1800VTP-17-X	5200	8650	1600	50	60	1800	1970	2045	44-φ 42	3400	2800	680	560	3600	3000	20-M48×1000	3000	2400	2000	3000	2500

loose core type installation dimension diagram

Loose core type installation Dimension Diagram (outlet above the base)



Fitted with Y series motor (the axial force will be borne by the water pump)

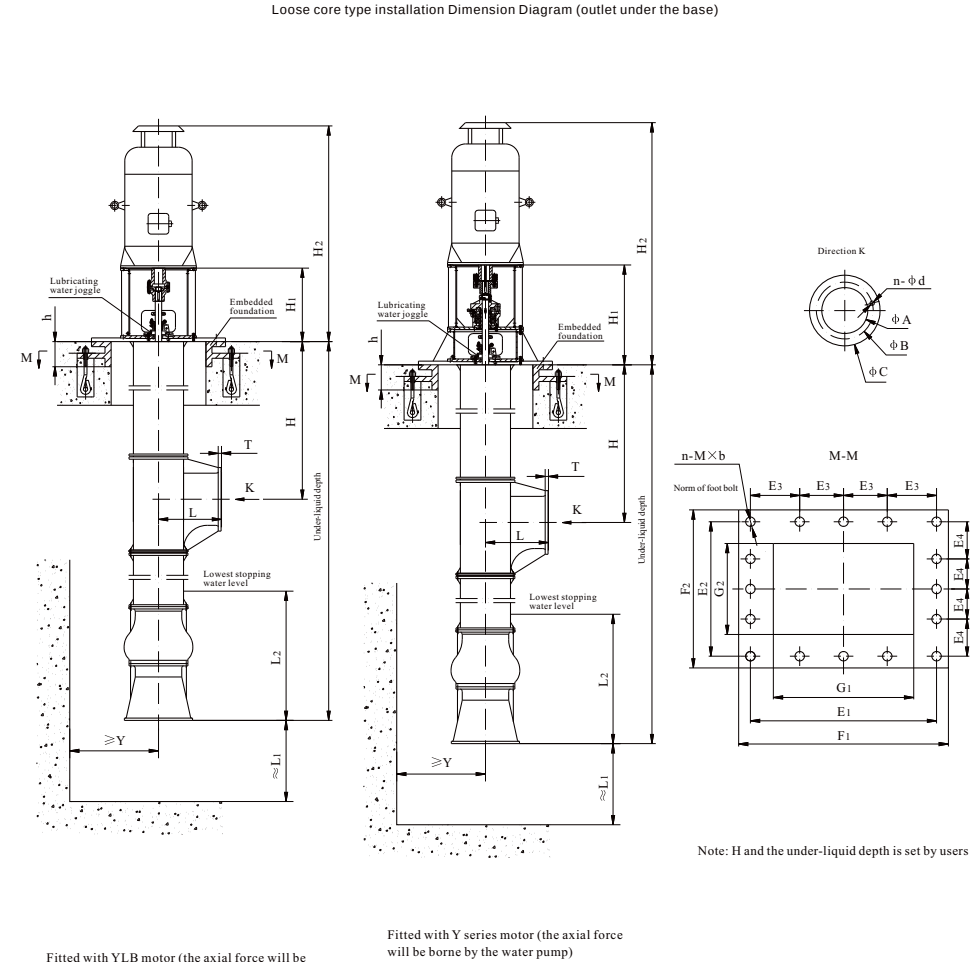
Fitted with YLB motor (the axial force will be borne by the motor, no reversal-resisting device is mounted on the pump, both pump and motor are jointed with a rigid clutch)

loose core type installation dimension table

No	Pump type	Dimension																	
				L	T	h		C	n	φd	D	D	T	n	×b	L	L		
1	600VTPC-15	650	2150	3850	800	36	150	600	725	780	20-φ30	1600	1700	800	8-M42×800	1150	500	1200	700
2	600VTPC-20	650	2150	3850	800	36	150	600	725	780	20-φ30	1600	1700	800	8-M42×800	1150	500	1200	700
3	700VTPC-15	750	2300	4150	900	30	150	700	810	860	24-φ26	1600	1700	800	8-M42×800	1150	600	1400	800
4	700VTPC-20	750	2300	4350	900	30	150	700	810	860	24-φ26	1600	1700	800	8-M42×800	1150	600	1400	800
5	800VTPC-15	850	2300	4550	1000	30	150	800	920	975	24-φ30	2000	2200	500	16-M42×800	1600	700	1500	900
6	800VTPC-20	850	2350	4600	1000	30	150	800	920	975	24-φ30	2000	2200	500	16-M42×800	1600	700	1500	900
7	900VTPC-15	950	2500	4750	1100	32	150	900	1020	1075	24-φ30	2000	2200	500	16-M42×800	1600	800	1600	1000
8	900VTPC-20	950	2500	4750	1100	32	150	900	1020	1075	24-φ30	2000	2200	500	16-M42×800	1600	800	1600	1000
9	1000VTPC-15	1000	2600	5150	1200	35	150	1000	1120	1175	28-φ30	2000	2200	500	16-M42×800	1600	900	1700	1100
10	1000VTPC-20	1000	2600	5300	1200	35	150	1000	1120	1175	28-φ30	2000	2200	500	16-M42×800	1600	900	1700	1100
11	1200VTPC-15	1100	2700	5750	1200	35	150	1200	1340	1405	32-φ33	2000	2200	500	16-M42×800	1600	1100	1800	1400
12	1200VTPC-19	1100	2700	5800	1200	35	150	1200	1340	1405	32-φ33	2000	2200	500	16-M42×800	1600	1100	1800	1400
13	1400VTPC-9	1300	3400	5800	1500	40	200	1400	1560	1630	36-φ36	2800	3000	700	16-M42×800	2300	1400	2100	1600
14	1400VTPCB-10(+4°)	1300	3400	5800	1500	40	200	1400	1560	1630	36-φ36	2800	3000	700	16-M42×800	2300	1400	2100	1600
15	1400VTPCB-10(+2°)	1300	3400	6000	1500	40	200	1400	1560	1630	36-φ36	2800	3000	700	16-M42×800	2300	1400	2100	1600
16	1400VTPCB-10(0°)	1300	3400	6200	1500	40	200	1400	1560	1630	36-φ36	2800	3000	700	16-M42×800	2300	1400	2100	1600
17	1400VTPCB-10(+2°)	1300	3400	6500	1500	40	200	1400	1560	1630	36-φ36	2800	3000	700	16-M42×800	2300	1400	2100	1600
18	1400VTPCB-10(+4°)	1300	3400	6800	1500	40	200	1400	1560	1630	36-φ36	2800	3000	700	16-M42×800	2300	1400	2100	1600
19	1400VTPCQ-10	1300	3400	6200	1500	40	200	1400	1560	1630	36-φ36	2800	3000	700	16-M42×800	2300	1400	2100	1600
20	1500VTPC-26	1400	4200	6400	1600	45	200	1500	1660	1730	36-φ36	2800	3000	700	16-M48×1000	2300	1500	2300	1800
21	1600VTPCQ-8	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	700	16-M42×1000	2300	1600	2500	2000
22	1600VTPC-11(+4°)	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	700	16-M42×1000	2300	1600	2500	2000
23	1600VTPC-11(+2°)	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	700	16-M42×1000	2300	1600	2500	2000
24	1600VTPC-11(0°)	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	700	16-M42×1000	2300	1600	2500	2000
25	1600VTPC-11(+2°)	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	700	16-M42×1000	2300	1600	2500	2000
26	1600VTPC-14	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	400	28-M42×1000	2300	1600	2500	2000
27	1600VTPC-14	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	400	28-M42×1000	2300	1600	2500	2000
28	1600VTPC-40	1500	4700	6600	1700	50	200	1600	1760	1830	40-φ36	2800	3000	400	28-M48×1000	2300	1600	2500	2000
29	1800VTPCQ-16	1600	5500	8150	2000	50	200	1800	1970	2045	44-φ42	2800	3000	400	28-M48×1000	2300	2000	3000	2500
30	1800VTPC-17	1600	5500	8050	2000	50	200	1800	1970	2045	44-φ42	2800	3000	400	28-M48×1000	2300	2000	3000	2500
31	1800VTPC-21	1600	5500	8550	2000	50	200	1800	1970	2045	44-φ42	2800	3000	400	28-M48×1000	2300	2000	3000	2500

Installation Dimension Table (outlet above the base)

loose core type installation dimension diagram



Fitted with YLB motor (the axial force will be borne by the motor, no reversal-resisting device is mounted on the pump, both pump and motor are jointed with a rigid clutch)

Fitted with Y series motor (the axial force will be borne by the water pump)

loose core type installation dimension table

No	Pump type	Dimension																n	x b	L	L	
			L	T	h	C	φ d															
1	600VTPC-15-X	1100	2630	600	36	150	600	725	780	20-φ30	2000	1800	500	600	2200	2000	14-M30×630	1600	1400	500	1300	700
2	600VTPC-20-X	1100	2830	600	36	150	600	725	780	20-φ30	2000	1800	500	600	2200	2000	14-M30×630	1600	1400	500	1300	700
3	700VTPC-15-X	1300	2950	700	30	150	700	810	860	24-φ26	2000	1800	500	600	2200	2000	14-M30×630	1600	1400	600	1400	800
4	700VTPC-20-X	1300	3250	700	30	150	700	810	860	24-φ26	2000	1800	500	600	2200	2000	14-M30×630	1600	1400	600	1400	800
5	800VTPC-15-X	1400	3050	750	30	150	800	920	975	24-φ30	2000	1800	500	600	2200	2000	14-M30×630	1600	1400	700	1500	900
6	800VTPC-20-X	1400	3500	750	30	150	800	920	975	24-φ30	2000	1800	500	600	2200	2000	14-M30×630	1600	1400	700	1500	900
7	900VTPC-15-X	1600	3650	850	32	200	900	1020	1075	24-φ30	2400	2100	480	525	2500	2200	18-M30×630	1900	1600	800	1600	1000
8	900VTPC-20-X	1600	3850	850	32	200	900	1020	1075	24-φ30	2400	2100	480	525	2500	2200	18-M30×630	1900	1600	800	1600	1000
9	1000VTPC-15-X	1800	4450	900	32	200	1000	1120	1175	28-φ30	2400	2100	480	525	2500	2200	18-M30×630	1900	1600	900	1700	1100
10	1000VTPC-20-X	1800	4800	900	32	200	1000	1120	1175	28-φ30	2400	2100	480	525	2500	2200	18-M30×630	1900	1600	900	1700	1100
11	1200VTPC-15-X	2000	5200	1000	32	200	1200	1340	1405	32-φ35	2400	2100	480	525	2500	2200	18-M30×630	1900	1600	1100	1800	1400
12	1200VTPC-19-X	2000	5250	1000	32	200	1200	1340	1405	32-φ35	2400	2100	480	525	2500	2200	18-M30×630	1900	1600	1100	1800	1400
13	1400VTPC-9-X	2500	5700	1200	40	250	1400	1560	1630	36-φ36	3400	2800	680	560	3600	3000	20-M36×630	3000	2400	1400	2100	1600
14	1400VTPC-14-X	2500	6200	1200	40	250	1400	1560	1630	36-φ36	3400	2800	680	560	3600	3000	20-M36×630	3000	2400	1400	2100	1600
15	1500VTPC-26-X	2800	6400	1300	45	250	1500	1660	1730	36-φ36	3400	2800	680	560	3600	3000	20-M36×630	3000	2400	1500	2300	1800
16	1500VTPC-26A-X	2800	6400	1300	45	250	1500	1660	1730	36-φ36	3400	2800	680	560	3600	3000	20-M36×630	3000	2400	1500	2300	1800
17	1500VTPC-26B-X	3000	6600	1300	45	250	1500	1660	1730	36-φ36	3400	2800	680	560	3600	3000	20-M36×630	3000	2400	1500	2300	1800
18	1600VTPC-6-X	3500	6600	1400	50	250	1600	1760	1830	40-φ36	3400	2800	680	560	3600	3000	20-M42×800	3000	2400	1600	2500	2000
19	1600VTPC-Q-10-X	3500	6700	1400	50	250	1600	1760	1830	40-φ36	3400	2800	680	560	3600	3000	20-M42×800	3000	2400	1600	2500	2000
20	1600VTPC-20-X	3500	6800	1400	50	250	1600	1760	1830	40-φ36	3400	2800	680	560	3600	3000	20-M42×800	3000	2400	1600	2500	2000
21	1800VTPC-24-X	4000	7200	1600	50	250	1800	1970	2045	44-φ42	3600	3000	600	500	3800	3200	24-M42×800	3200	2600	2000	3000	2500
22	1800VTPC-26-X	4000	7300	1600	50	250	1800	1970	2045	44-φ42	3600	3000	600	500	3800	3200	24-M42×800	3200	2600	2000	3000	2500
23	1800VTPC-28.5-X	4000	7400	1600	50	250	1800	1970	2045	44-φ42	3600	3000	600	500	3800	3200	24-M42×800	3200	2600	2000	3000	2500

Installation Dimension Table (outlet under the base)

Reference table for pipeline loss

Pipe diameter (mm)	Capacity(L s)									
	1	2	4	6	8	10				
25	32.7	13.0								
38	3.5	1.4	55							
50	0.8	3.1	13	29						
65		1.6	3.2	7.1	13	20				
75		0.4	0.8	3.3	5.9	9.6	21.6			
100			0.23	0.8	1.3	2.1	6.8	8.6	13	19.4
125				0.23	0.4	0.63	1.3	2.7	4.1	5.9
150					0.16	0.26	0.58	1.1	1.6	2.3
175						0.11	0.27	0.5	0.74	1.05
200							0.13	0.26	0.37	0.53
250								0.07	0.12	0.18
300										0.07
										0.12
										0.19
										0.27
										0.37
										0.49
										0.61
										0.76
										0.9
										1.1
										1.3
										1.5
										2.0
										2.4
										3.0
										4.0
										5.0
										6.3
										8.0
										10.0
										12.5
										16.0
										20.0
										25.0
										31.5
										40.0
										50.0
										63.0
										80.0
										100.0
										125.0
										160.0
										200.0
										250.0
										315.0
										400.0
										500.0
										630.0
										800.0
										1000.0
										1250.0
										1600.0
										2000.0
										2500.0
										3150.0
										4000.0
										5000.0
										6300.0
										8000.0
										10000.0
										12500.0
										16000.0
										20000.0
										25000.0
										31500.0
										40000.0
										50000.0
										63000.0
										80000.0
										100000.0
										125000.0
										160000.0
										200000.0
										250000.0
										315000.0
										400000.0
										500000.0
										630000.0
										800000.0
										1000000.0
										1250000.0
										1600000.0
										2000000.0
										2500000.0
										3150000.0
										4000000.0
										5000000.0
										6300000.0
										8000000.0
										10000000.0
										12500000.0
										16000000.0
										20000000.0
										25000000.0
										31500000.0
										40000000.0
										50000000.0
										63000000.0
										80000000.0
										100000000.0
										125000000.0
										160000000.0
										200000000.0
										250000000.0
										315000000.0
										400000000.0
										500000000.0
										630000000.0
										800000000.0
										1000000000.0
										1250000000.0
										1600000000.0
										2000000000.0
										2500000000.0
										3150000000.0
										4000000000.0
										5000000000.0
										6300000000.0
										8000000000.0
										10000000000.0
										12500000000.0
										16000000000.0
										20000000000.0
										25000000000.0
										31500000000.0
										40000000000.0
										50000000000.0
										63000000000.0
										80000000000.0
										100000000000.0
										125000000000.0
										160000000000.0
										200000000000.0
										250000000000.0
										315000000000.0
										400000000000.0
										500000000000.0
										630000000000.0
										800000000000.0
										1000000000000.0
										1250000000000.0
										1600000000000.0
										2000000000000.0
										2500000000000.0
										3150000000000.0
										4000000000000.0
										5000000000000.0
										6300000000000.0
										8000000000000.0
										10000000000000.0
										12500000000000.0
										16000000000000.0
										20000000000000.0
										25000000000000.0
										31500000000000.0
										40000000000000.0
										50000000000000.0
										63000000000000.0
										80000000000000.0
										100000000000000.0
										125000000000000.0
										160000000000000.0
										200000000000000.0
										250000000000000.0
										315000000000000.0
										400000000000000.0
										500000000000000.0
										630000000000000.0
										800000000000000.0
										1000000000000000.0
										1250000000000000.0
										1600000000000000.0
										2000000000000000.0
										2500000000000000.0
										3150000000000000.0
										4000000000000000.0
										5000000000000000.0
										6300000000000000.0
										8000000000000000.0
										10000000000000000.0
										12500000000000000.0
										16000000000000000.0
										20000000000000000.0
										25000000000000000.0
										31500000000000000.0
										40000000000000000.0
										50000000000000000.0
										63000000000000000.0
										80000000000000000.0
										100000000000000000.0
										125000000000000000.0
										160000000000000000.0
										200000000000000000.0
										250000000000000000.0
										315000000000000000.0
										400000000000000000.0
										500000000000000000.0
										630000000000000000.0
										800000000000000000.0
										1000000000000000000.0
										1250000000000000000

The length of a straight pipe converted into from both valve and elbow (each)

artery	Convert into the times of the diameter of a straight pipe	emur
Standard elbow	12	Multiple in case of unopen
Fully opened gate valve	25	
Back valve	100	
Foot valve	100	Partial block-up multiplied

Note: For instance, a 100mm diameter pipe, the foot valve has a 100×100=10000mm=10m diameter when which is converted into 100 times that of the pipe's diameter. Suppose the flow is 8L/s. Looked into the above table, the loss of the straight pipe is 1.3m each 100m, then the one for 100mm is 0.13m, that is, for a 100mm foot valve with a flow 8L/s, its head loss is 0.13m.

Limit of the maximum flow for a pipe with a certain diameter

Pipeline diameter (mm)	a num flo (L/s)	a num flo rate (m/s)	Pipeline diameter (mm)	a num flo (L/s)	a num flo rate (m/s)
25	1	2.04	125	30.0	2.44
38	2.5	1.69	150	43.0	2.45
50	4.17	2.12	175	60.0	2.49
65	6.67	2.01	200	83.3	2.69
75	10.0	2.26	250	133.0	2.72
100	18.4	2.33	300	192.0	2.71

Note: The pipeline loss would be made greatly increased once the limit is over.