



Technical Catalogue



LP Series

Vertical Turbine Pump

LP(T) Type Long-Axis Vertical Drainage Pump

General introduction and application

LP 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°C and of which suspended substances are free of fibers or abrasive particles, content is less than 150mg/L.

On the basis of LP Type Long-axis Vertical Discharge Pump. LPT 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°C and contain certain solid particles, such as scrap iron, fine sand, coal powder, etc.

LP(T) 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, axial-flow pump.

Performance Range

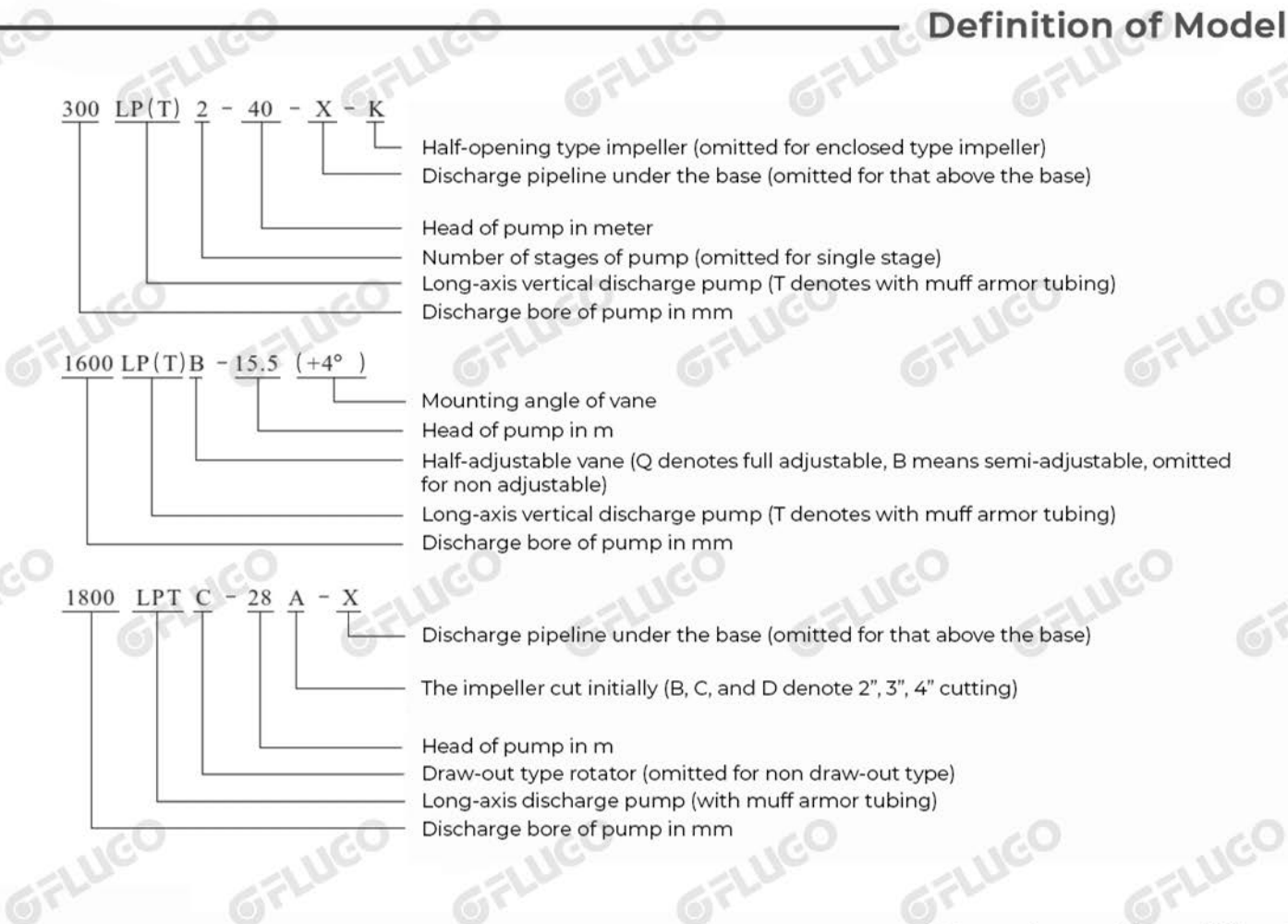
Flux : 8 m³/h ~ 60.000 m³/h
Head : 3m ~ 180m
Power : 1.5 kW ~ 3,600 kW

Operational Conditions

1. The temperature of medium shall not be higher than 60°C.
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 LP type pump, the content of suspended substances in the medium shall be less than 150mg/L; for LPT 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. LPT type 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 0.5 m above at min. Water level and generally it is suggested to be within 2~3m.
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

LP(T) Type Long-Axis Vertical Drainage Pump

Definition of Model

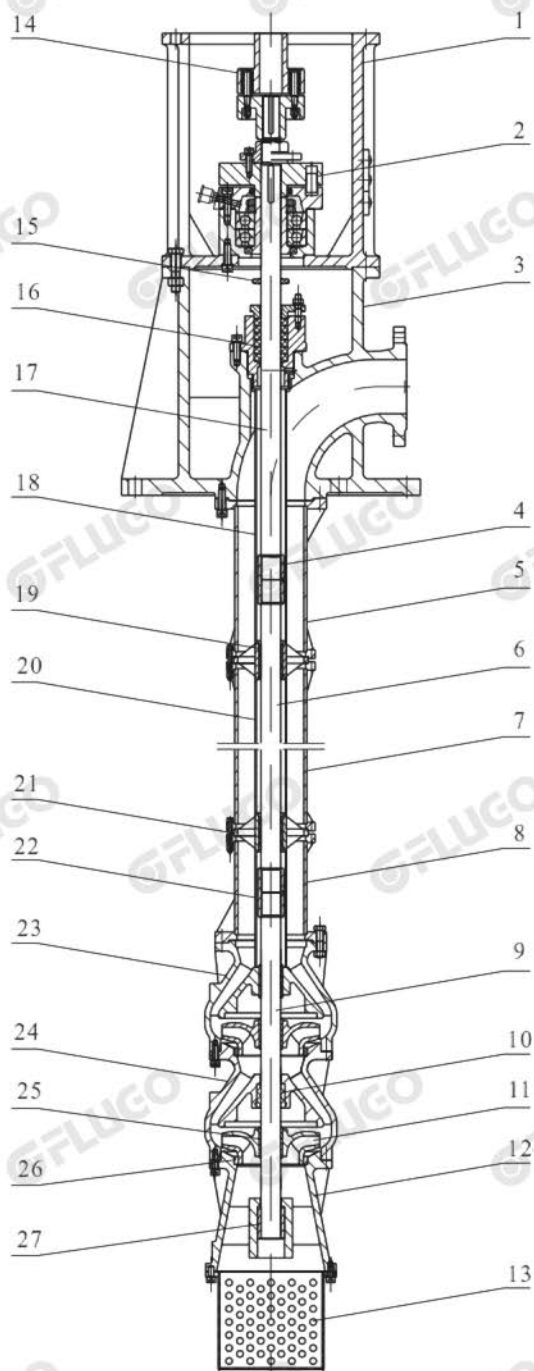


Structure Specification

1. The inlet of LP(T) 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 adjustment: 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 LP type Pump, LPT 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.

LP(T) Type Long-Axis Vertical Drainage Pump

LP(T) type pump structure diagram



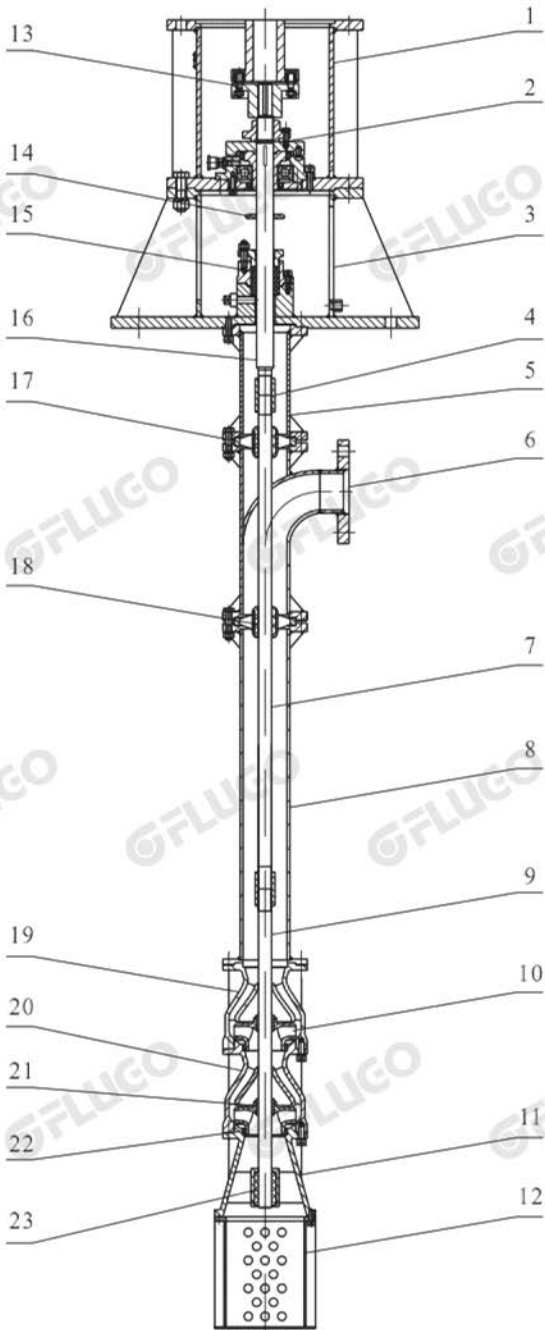
LP(T) Pump Structure Diagram (for the outlet above the base)

No	Name
1	Motor base
2	Anti-reverse device
3	Outlet base
4	Coupling
5	Upper ascending pipe
6	Transmissiion 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

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

LP(T) Type Long-Axis Vertical Drainage Pump

LP(T) type pump structure diagram



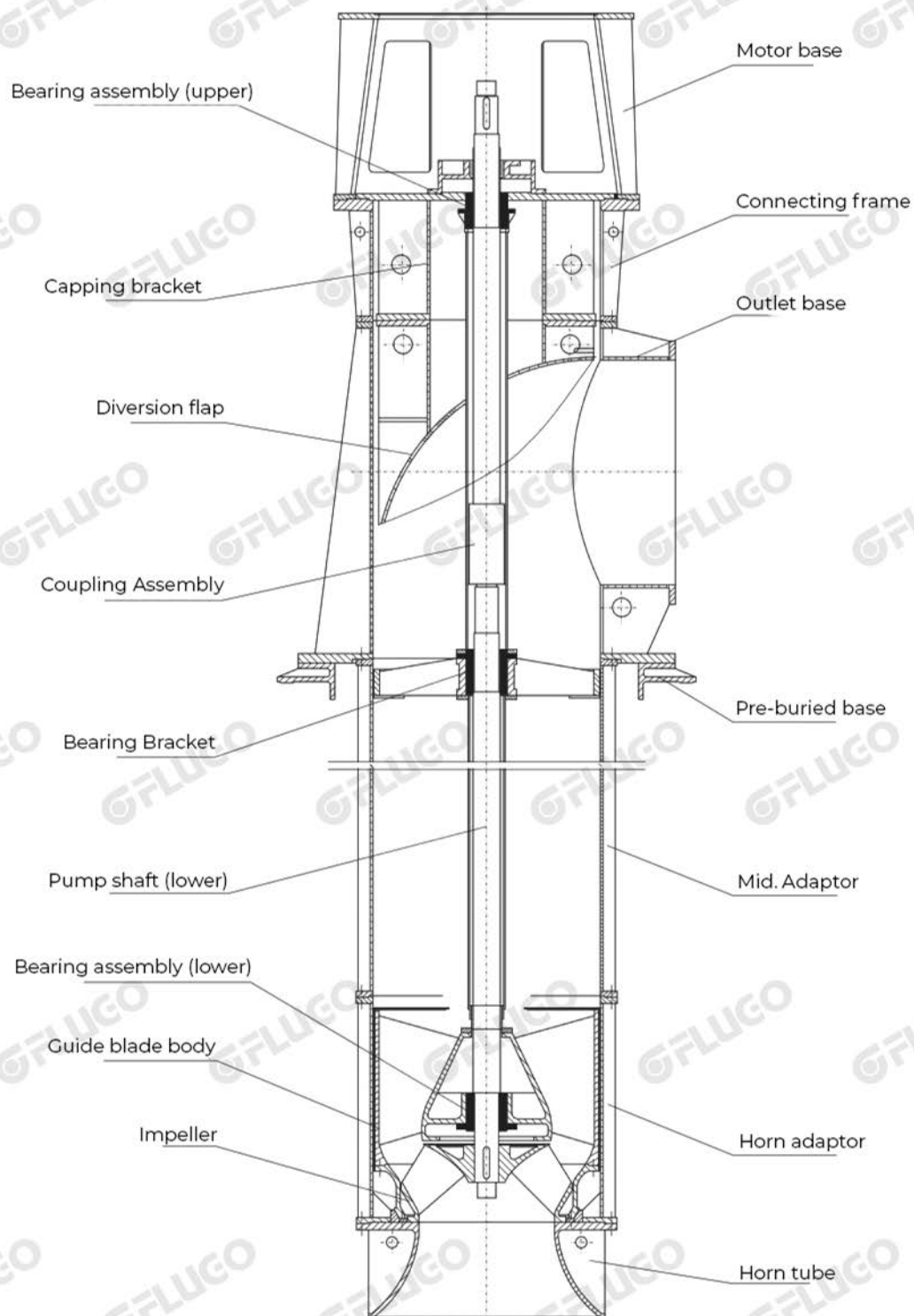
LP(T) Pump Structure Diagram (for the outlet under the base)

No	Name
1	Motor base
2	Anti-reverse device
3	Joint base
4	Coupling
5	Upper ascending pipe
6	Outlet base
7	Transmissiion 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

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

LP(T) Type Long-Axis Vertical Drainage Pump

LP(T) type pump structure diagram



LPTC Type Pump Structure Diagram (loose core type structure)

Performance parameter table of LP(T) type pump

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

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Performance parameter table of LP(T) type pump

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
46	250LP(T)-20	250	450	20	1480	76	45
47	250LP(T)2-30		450	30	1480	74	75
48	250LP(T)2-40		450	40	1480	76	90
49	250LP(T)2-50		450	50	1490	76	110
50	250LP(T)3-60		450	60	1490	75	132
51	250LP(T)3-75		450	75	1490	75	160
52	250LP(T)4-95		450	95	1490	74	200
53	300LP(T)-6	300	700	6	970	72	22
54	300LP(T)-8		700	8	980	72	30
55	300LP(T)-10		700	10	980	74	37
56	300LP(T)-15		650	15	1480	75	45
57	300LP(T)-20		650	20	1480	77	55
58	300LP(T)2-30		650	30	1490	76	90
59	300LP(T)2-40		650	40	1490	76	110
60	300LP(T)3-60		650	60	1490	75	185
61	300LP(T)4-80		650	80	1490	75	220
62	350LP(T)-4	350	1000	4	1470	74	22
63	350LP(T)-6		1000	6	1470	75	30
64	350LP(T)-8		1000	8	1470	75	37
65	350LP(T)-10		1000	10	1470	76	45
66	350LP(T)-15		900	15	1480	77	75
67	350LP(T)-20		900	20	1490	78	90
68	350LP(T)-30		900	30	1490	77	132
69	350LP(T)2-40		900	40	1490	78	160
70	350LP(T)3-60		900	60	1490	77	250
71	350LP(T)4-80		900	80	1490	77	315
72	350LP(T)4-120		900	120	1480	77	500
73	400LP(T)-4	400	1500	4	1470	75	30
74	400LP(T)-6		1500	6	1470	77	45
75	400LP(T)-8		1500	8	980	80	55
76	400LP(T)-10		1500	10	980	80	75
77	400LP(T)-12		1300	12	980	78	75
78	400LP(T)-16		1500	16	1480	78	110
79	400LP(T)-20		1250	20	1490	80	110
80	400LP(T)-25		1250	25	1490	80	132
81	400LP(T)-30		1250	30	1490	80	160
82	400LP(T)-35		1500	35	980	80	220
83	400LP(T)2-40		1250	40	1490	80	200
84	400LP(T)-50		1250	50	1490	80	280
85	400LP(T)2-60		1250	60	1490	80	315
86	400LP(T)2-70		1250	70	1480	80	355
87	500LP(T)-4	500	2200	4	980	82	37
88	500LP(T)-6		2200	6	980	81	55
89	500LP(T)-8		2300	8	980	81	75
90	500LP(T)-10		2200	10	980	82	90
91	500LP(T)-12		2200	12	980	84	110
92	500LP(T)-15		2200	15	980	85	132

Performance parameter table of LP(T) type pump

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
93	500LP(T)-20	500	2300	20	980	83	200
94	500LP(T)-25		2200	25	980	84	220
95	500LP(T)-30		2200	30	980	83	280
96	500LP(T)-35		2200	35	980	83	315
97	500LP(T)-40		2200	40	980	83	355
98	500LP(T)3-100		2200	100	980	83	800
99	600LP(T)-4	600	3000	4	730	84	45
100	600LP(T)-6		3000	6	730	83	75
101	600LP(T)-8		3000	8	730	85	110
102	600LP(T)-10		3000	10	730	83	132
103	600LP(T)-12		3400	12	980	85	160
104	600LP(T)-15		3000	15	980	85	185
105	600LP(T)-20		3000	20	980	85	250
106	600LP(T)-25		3000	25	980	85	315
107	600LP(T)-30		4000	30	980	84	500
108	600LP(T)-35		4000	35	980	84	560
109	600LP(T)-40		3200	40	980	83	560
110	600LPTC-15		3200	15	980	83	200
111	600LPTC-15-X		3200	15	980	83	200
112	600LPTC-20		3000	20	980	83	250
113	600LPTC-20-X		3000	20	980	83	250
114	700LP(T)-4	700	4500	4	730	83.5	75
115	700LP(T)-6		4500	6	730	84.5	110
116	700LP(T)-8		4500	8	730	82.5	160
117	700LP(T)-10		4500	10	730	83.5	185
118	700LP(T)-12		4500	12	730	83.5	220
119	700LP(T)-15		4500	15	740	85.5	280
120	700LP(T)-20		4500	20	980	86.5	355
121	700LP(T)-25		4500	25	980	85	450
122	700LP(T)-30		4500	30	980	85	560
123	700LPTC-15		4500	15	740	84	280
124	700LPTC-15-X		4500	15	740	84	280
125	700LPTC-20		4500	20	980	85.5	355
126	700LPTC-20-X		4500	20	980	85.5	355
127	800LP(T)-4	800	6400	4	585	85.1	110
128	800LP(T)-6		6000	6	585	84.8	160
129	800LP(T)-8		6500	8	585	84.5	220
130	800LP(T)-10		6400	10	590	83.5	250
131	800LP(T)-12		6200	12	590	84.3	315
132	800LP(T)-15		7000	15	590	84.5	450
133	800LP(T)-20		6200	20	730	86.5	500
134	800LP(T)-25		6200	25	730	85	600
135	800LP(T)-7-X		6000	7	590	85	185
136	800LP(T)-13.4-X		6700	13.4	590	84.8	355

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Performance parameter table of LP(T) type pump

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
137	800LP(T)-17-X	800	6000	17	590	84.5	400
138	800LPTC-15		7000	15	590	84	450
139	800LPTC-15-X		7000	15	590	84	450
140	800LPTC-20		6200	20	730	85.5	500
141	800LPTC-20-X		6200	20	730	85.5	500
142	900LP(T)-4	900	8500	4	485	85.1	160
143	900LP(T)-6		8500	6	485	85.3	200
144	900LP(T)-8		8000	8	490	84.5	280
145	900LP(T)-10		8000	10	590	84.9	315
146	900LP(T)-14		8000	14	590	85.3	450
147	900LP(T)-16		8000	16	590	85.2	500
148	900LP(T)-20		8000	20	590	86.4	630
149	900LP(T)-25		8000	25	590	85	800
150	900LP(T)-7-X		8000	7	490	85.1	250
151	900LP(T)-12.6-X		9000	12.6	590	87	450
152	900LP(T)-17-X		8000	17	590	85.5	560
153	900LPTC-15		8000	15	590	84.5	500
154	900LPTC-15-X		8000	15	590	84.5	500
155	900LPTC-20		8000	20	590	85.5	630
156	900LPTC-20-X		8000	20	590	85.5	630
157	1000LP(T)-4	1000	9500	4	485	87	185
158	1000LP(T)-7		10500	7	485	87.1	315
159	1000LP(T)-9		10000	9	490	84.5	355
160	1000LP(T)-10		10000	10	490	85.2	400
161	1000LP(T)-13		10000	13	490	85.3	500
162	1000LP(T)-16		10000	16	490	85.6	630
163	1000LP(T)-18		10000	18	490	85.8	710
164	1000LP(T)-20		10000	20	490	86.4	800
165	1000LP(T)-7-X		10500	7	485	87.1	315
166	1000LP(T)-13-X		10000	13	490	85.3	500
167	1000LP(T)-17-X		10000	17	490	85.5	710
168	1000LPTC-15		9000	15	490	84.5	560
169	1000LPTC-15-X		9000	15	490	84.5	560
170	1000LPTC-20		9000	20	590	86	710
171	1000LPTC-20-X		9000	20	590	86	710
172	1200LP(T)-4	1200	13500	4	490	84.2	250
173	1200LP(T)-6		15000	6	490	87.4	355
174	1200LP(T)-9		14500	9	490	84.5	560
175	1200LP(T)-12		14500	12	490	85.2	710
176	1200LP(T)-14		14000	14	490	85.3	800
177	1200LP(T)-16		13000	16	490	86.6	800
178	1200LP(T)-18		15000	18	495	85.8	1000
179	1200LP(T)-20		16000	20	495	86.4	1250

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Performance parameter table of LP(T) type pump

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
180	1200LP(T)-24	1200	14000	24	495	87	1250
181	1200LP(T)-8-X		14400	8	490	85.4	450
182	1200LP(T)-10-X		14000	10	490	85.3	560
183	1200LP(T)-17-X		14000	17	490	86.5	900
184	1200LPTC-15		10000	15	490	84.5	630
185	1200LPTC-15-X		10000	15	490	84.5	630
186	1200LPTC-19		6732	19	590	88	500
187	1200LPTC-19-X		6732	19	590	88	500
188	1400LPTC-9	1400	10656	10.6	370	83	500
			12816	8.5		87	
			15228	5.8		82	
189	1400LPTCB-10(-4°)	1400	7596	10.6	370	85.6	315
			8856	8.6		88.7	
			9612	6.8		85.6	
190	1400LPTCB-10(-2°)	1400	8172	11.4	370	85.6	350
			9792	9.2		88.8	
			10800	7.2		85.6	
191	1400LPTCB-10(0°)	1400	8820	12.2	370	85.6	400
			10620	10		89.1	
			11880	7.7		85.6	
192	1400LPTCB-10(+2°)	1400	9432	12.8	370	85.6	450
			11412	10.7		89.6	
			12744	8.3		85.6	
193	1400LPTCB-10(+4°)	1400	10260	13.4	370	85.6	500
			12240	11.3		89.2	
			13500	9.3		85.6	
194	1400LPTCQ-10	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	1400LP(T)-14	1400	15300	18.7	370	84.5	1000
			18000	14.2		89	
			21096	8.9		79	
196	1400LP(T)-60	1400	12600	66	495	82	3600
			16200	60		86	
			19800	49.5		82	
197	1400LP(T)-60A	1400	11700	57.5	495	80	3150
			15300	51.7		85	
			18000	44.5		82	
198	1400LP(T)-60B	1400	12600	47.5	495	81	2500
			14400	44.5		83	
			16200	40		81	

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Performance parameter table of LP(T) type pump

No.	Pump type	Outlet diameter mm	Capacity m ³ /h	Head m	Speed r/min	Efficiency %	Motor power kw
199	1400LP(T)-10	1400	18000	12.7	370	83	900
			23400	9.7		88.4	
			27720	3.5		79	
201	1500LPTC-26-X	1500	13680	29.2	495	82	1600
			16128	26.3		88.5	
			19080	20		86	
202	1500LPTC-26A-X	1500	13428	25	495	85	1250
			16200	21		88	
			18612	15.5		81.5	
203	1500LPTC-26B-X	1500	12960	22.4	495	82	1250
			15480	19.8		87	
			17280	15.8		83	
204	1600LPTC-6-X	1600	18000	9.4	495	86	630
			20700	6.8		87.5	
			22500	5		83	
205	1600LPTCQ-8	1600	13320	6	333	86	600
			14400	7		87	
			15300	8.1		88	
			16200	8.85		88	
			17640	8.9		87	
206	1600LPTCQ-10-X	1600	15552	8.38	370	86.5	900
			18252	9.55		88.4	
			23328	9.35		87	
207	1600LPTC-11(-4°)	1600	15480	11.9	370	82.5	800
			17640	9.5		85.5	
			19400	7.1		83.5	
208	1600LPTC-11(-2°)	1600	16560	12.9	370	83	800
			19800	9.9		87.3	
			21600	7.7		83	
209	1600LPTC-11(0°)	1600	18000	13.8	370	81.7	1000
			21600	10.9		88.7	
			24480	7.5		83	
210	1600LPTC-11(+2°)	1600	19440	14.6	370	83	1000
			22896	12		88.7	
			26280	8.1		83	
211	1600LPTC-11(+4°)	1600	21960	14.1	370	83.4	1250
			24480	12.3		87.7	
			27360	9.35		83	
212	1600LPTC-14	1600	11200	15.7	370	86.5	600
			12024	14.6		88.8	
			12600	13		85.2	
213	1600LP(T)-7	1600	20304	8.79	295	87.8	630
			22680	7.18		88.8	
			25560	4.15		82.3	

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Performance parameter table of LP(T) type pump

No.	Pump type	Outlet diameter mm	Capacity m³/h	Head m	Speed r/min	Efficiency %	Motor power kw
214	1600LP(T)-12	1600	18252	16	333	87	1000
			22680	11.6		88.6	
			23400	10.3		87	
215	1600LP(T)-13.5	1600	18540	17.2	333	85.5	1250
			22680	13.5		88	
			24696	10.8		87	
216	1600LP(T)-14.6	1600	18000	19.4	375	85.5	1250
			22680	14.65		88.8	
			24120	11.84		83	
217	1600LP(T)-20	1600	19080	22	375	84	1600
			22680	19.57		89	
			26280	15.2		87	
218	1600LP(T)B-16(-6°)	1600	16920	14.1	330	81.8	1000
			18360	12.8		83	
			20880	8.9		80.3	
219	1600LP(T)B-16(-4°)	1600	18360	16	330	83.4	1250
			20880	13.8		85.3	
			23400	10.3		83.4	
220	1600LP(T)B-16(-2°)	1600	20160	17.3	330	82.4	1600
			23400	14.5		85.3	
			24840	12.9		84.7	
221	1600LP(T)B-16(0°)	1600	22320	17.9	330	83.5	1600
			24480	16.1		85.7	
			27360	13.5		85.3	
222	1600LP(T)B-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	
223	1600LP(T)B-16(+4°)	1600	27360	19.1	330	86.1	2000
			29880	17.2		86.9	
			31680	15.4		86.1	
224	1600LP(T)-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	
225	1600LP(T)B-15.5(-4°)	1600	21600	18.3	295	82	1600
			28800	13.8		88	
			33300	8.8		80	

LP(T) Type Long-Axis Vertical Drainage Pump

Performance parameter table of LP(T) type pump

No.	Pump type	Outlet diameter mm	Capacity m³/h	Head m	Speed r/min	Efficiency %	Motor power kw
226	1600LP(T)B-15.5(-2°)	1600	36576	9.2	295	81.7	2000
			31176	14.6		88	
			25236	18.2		81.7	
227	1600LP(T)B-15.5(0°)	1600	37476	10.6	295	83	2000
			33948	15.8		87	
			29628	18.6		85	
228	1600LP(T)B-15.5(+2°)	1600	41796	11	295	78.8	2500
			36000	17.6		87	
			31356	20.2		85	
229	1600LP(T)B-15.5(+4°)	1600	42696	13.2	295	83	2500
			38340	18.4		86.8	
			34848	20.2		85	
230	1600LPTC-40	1600	12600	46.4	585	84.1	2500
			15300	41.9		86.9	
			16200	40		86.8	
231	1800LPTCQ-16	1800	18000	13.6	370	86	1600
			19800	14.8		87	
			21600	16		88	
			23400	17		88	
			25200	18.3		88	
232	1800LPTC-17	1800	18000	19.2	370	85	1250
			20340	17.3		88	
			23760	12.7		81	
233	1800LPTC-21	1800	17460	23	370	80	1600
			21672	21		89	
			28728	13		80	
234	1800LPTC-24-X	1800	19944	27.8	425	84.2	2000
			23760	24		87.8	
			27072	19.5		84.3	
235	1800LPTC-26-X	1800	21600	28.6	495	86.3	2500
			23760	26.1		87.5	
			25920	22.2		84.3	
236	1800LPTC-28.5-X	1800	18000	31.3	370	84.2	2500
			21600	28.5		87	
			26100	23.2		81	
237	1800LP(T)-34	1800	23400	37.4	370	85.1	3600
			28800	33.8		88	
			34200	27.2		81.9	
238	1800LP(T)-34A	1800	21024	32.6	370	85	3200
			27252	29		88	
			31788	24.5		82	

LP(T) Type Long-Axis Vertical Drainage Pump

Reference Tabale for Pipeline Loss

Pipe diameter (mm)	Capacity(L/s)																							
	1	2	4	6	8	10																		
25	32.7	13.0																						
38	3.5	14	55				15	20																
50	0.8	3.1	13	29					25	30														
65		1.6	3.2	7.1	13	20					40	50												
75		0.4	0.8	3.3	5.9	9.6	21.6						60	70										
100			0.23	0.8	1.3	2.1	6.8	8.6	13	19.4					80	90								
125				0.23	0.4	0.63	1.3	2.7	4.1	5.9	10.7						100	110						
150					0.16	0.26	0.58	1.1	1.6	2.3	4.2	6.4	9.4						120	130				
175						0.11	0.27	0.5	0.74	1.05	1.9	2.9	4.3	5.8	7.7	9.6					140	160		
200							0.13	0.26	0.37	0.53	0.93	1.5	2.1	2.9	3.7	4.7	6.1	7.2	8.5				180	200
250								0.07	0.12	0.18	0.30	0.48	0.68	0.93	1.2	1.5	1.9	2.3	2.8	3.3	3.7	4.9	5.2	
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

Brief table for the frictional loss of a straight pipe(for evaluation),the lost meters of a 100m straight pipe takes the newly iron pipe as the standard and multiple for the old one.

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

Variety	Convert into the times of the diameter of a straight pipe	Remark
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 low is 0.13m.

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

Pipeline diameter (mm)	Maximum flow (L/s)	Maximum flow rate (m/s)	Pipeline diameter (mm)	Maximum flow (L/s)	Maximum flow 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.



LP Series
Vertical Turbine Pump

Authorized Distributor