Section 01 Self-priming pump

Self-priming pump List

NO.	KKS Code	Equipment Name	Qty.	Specification	Model	Motor Power	Remark
1	00GNC01AP001 00GNC01AP002	Wastewater Transfer Pump A/B	2	Q=550m^3/h, P=2.5bar	250WFB-AD	110KW	Attachment 01
2	00GNC40AP001 00GNC40AP002 00GNC40AP003	Filter Backwash Pump A/B/C	3	Q=360m^3/h, P=2bar	200WFB-AD	75KW	Attachment 01
3	00GNC40AP004 00GNC40AP005	Wastewater Discharge Pump A/B	2	Q=500m^3/h, P=4bar	250WFB-AD	90KW	Attachment 01

双达®

江苏省著名商标

质量安全

ISO9001:2000质量体系认证

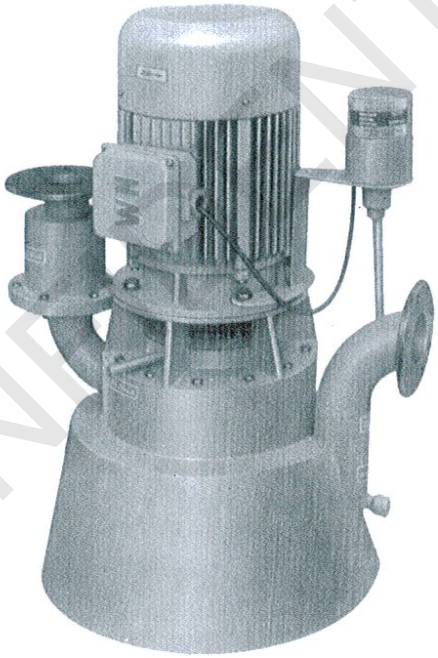
ISO9001:2000 Quality System Certificated Enterprise

WFB 系列无密封自控自吸泵
选 型 与 使 用

THE SELECTION AND USAGE OF MODEL-WFB SERIES NON-SEAL SELF-CONTROL AUTOMATIC FEED WATER PUMP

· 说明书 ·

SERVICE MANUAL



江苏双达泵阀集团有限公司

JIANGSU SHUANGDA PUMP & VALVE GROUP CO.,LTD.

一、概　述

WFB 系列无密封自控自吸清水泵，是填补国内空白的首创产品，该产品具有耐温、耐压、耐磨、“一次引流”、“终身自吸”等多种功能。在电子、电力、化工、钢铁、医药、食品、电镀、环保、消防、市政、净水、国防军工、纺织印染、采掘选矿、民用建筑等行业中广泛适用，深受用户的好评。

独特的优点：

1.本公司采用：“泵用连环多面离心密封装置”，革除了传统水泵的填料密封、盘根密封、机械密封，彻底制服了“跑、冒、滴、漏”，是替代各种长轴液下泵、潜水泵、潜污泵等最理想的设备。

2.运行过程中密封装置不磨擦，无磨损，使用寿命较同类产品长 10 倍以上。

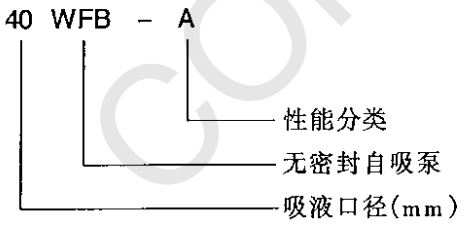
3.运用气水分离原理，自吸性能稳定可靠，特别是采用“电动空气控制阀”使虹吸现象得到彻底的破坏，真正实现了“一次引流、终身自吸”。

4.振动小、噪音低、移动灵活、拆卸简便、易于安装、不需地脚固定。

5.具有优越的上、下水位自控报警等功能，可与高科技领域和高度自动化系统配套使用。

二、选型方法

(1)型号意义举例：



(2)法兰采用中华人民共和国国家标准制造，标准代号 GB9115.2－88。非金属材质水泵的法兰压力 0.6MPa；金属材质水泵的法兰压力 1.0MPa。本公司水泵出厂时，进出液口各配一只反法兰。

(3) 配套电机电压分：380V、6000V、10000V/50HZ，订货时由用户选择。

Summary

Model – WFB Series non – seal self – control automatic feed water pump is an original product which fills the gaps in China. This product has multiple functions such as temperature, pressure and wear resistance, “one – shot draft”, “lifelong automatic feed“ etc. It is widely applicable to various industries such as electronics, power, chemical, steel, pharmaceutical, food, electroplating, environmental protection, fire – fighting, municipal administration, water purification, national defence illitary project, textile dyeing, digging & ore dressing, civil construction and so on, It is deeply well – received by vast consumers.

Unique merit

1.The company adopts “pump purpose connecting ring style multi – aspect centrifugal seal device” . It gets rid of traditional water pump filler seal, packing seal, mechanical seal. It completely brings under “runing, bubbling, dropping and leaking” . This is an most ideal equipment to replace the former various prolate axis immersible pump, submerged pump, sinking dirt pump and so on.

2. Seal device is of non – friction & wear during running process. Its service life is ten times longer than same kind products.

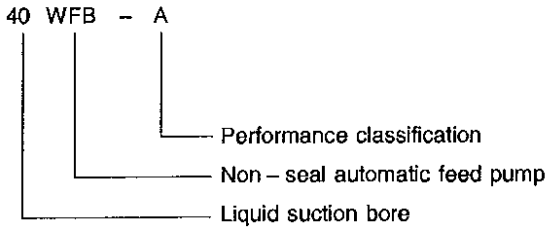
3. It utilizes gas – water separation principle with stable & reliable self feed performance. It thoroughly destructs the siphon phenomenon of draft liquid by esp. adopting “electric air control valve”, thus genuinely fulfills “one – shot draft, lifelong automatic feed”.

4.Small vibration, low noise, flexible moving, easy removal, convenient installation with no need for foundation fixation.

5. It has advantageous up or down stage automatic control alarm, lower water level automatic control warning etc functions. It may form a complete set with high – tech fields and highly automation system.

Type – selecting Method

(1) Type meaning examples:



(2) pump flange employs P.R. China national standard for its manufacture. Its standard code name is GB9115.2 – 88; non – metal material pump flange pressure is 0.6MPa. metal material pump flange pressure is 1.0MPa. When our company pump leaves the company, liquid inlet & outlet may respectively be matched with a counter – flange.

(3) The necessary motor voltage is divided into 380V , 6000V, 10000V/ 50Hz etc which are being chosen by consumers when placing orders.

三、性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸深 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
16WFB－A	2900	0.75	8	Y2－80M1－2	0.75	380	2.5	16	10	75
		1.1	6.5							
		1.5	5.5							
32WFB－A	2900	4.5	13	Y2－90S－2	1.5	380	3	32	25	99
		6.5	10.5							
		9	8							
40WFB－A	2900	6.5	25	Y2－112M－2	4	380	5	40	32	140
		8.5	23							
		10	21							
40WFB－A_1	2900	13.5	18	Y2－100L－2	3	380	4	40	32	140
40WFB－A_2	2900	5	15	Y2－90L－2	2.2	380	4	40	32	125
		8	13							
		10	11							
40WFB－A_3	2900	14	8	Y2－90L－2	2.2	380	4	40	32	125
50WFB－A	2900	7.5	28	Y2－132S1－2	5.5	380	5	50	40	205
		12.5	26							
		15	24.5							
50WFB－A_1	2900	10.5	20.5	Y2－100L－2	3	380	5	50	40	170
50WFB－A_2	2900	5	11	Y2－90S－2	1.5	380	3	50	40	149
		6.3	10							
		7.5	9							
50WFB－A_3	2900	10	6	Y2－90S－2	1.5	380	3	50	40	149
50WFB－B	2900	10	40	Y2－160M1－2	11	380	7	50	40	225
		11	38							
		15	35							
50WFB－B_1	2900	7	33	Y2－132S2－2	7.5	380	5	50	40	205
		12	31							
		15	29							
50WFB－B_2	2900	3	30	Y2－112M－2	4	380	5	50	40	185
		5	28							
		10	26							
50WFB－B_3	2900	5	15	Y2－90L－2	2.2	380	4	50	40	150
		6.4	14							
		7.5	12.5							
50WFB－BD	1450	40	8	Y2－132S－4	5.5	380	5	50	40	50
50WFB－C	2900	8.5	58	Y2－160M2－2	15	380	7	50	40	260
		12	56							
		15	54							
50WFB－C_1	2900	10	46	Y2－160M1－2	11	380	7	50	40	225
		13	40							
50WFB－C_2	2900	5	19	Y2－100L－2	3	380	4	50	40	170
		6	18							
		8	17							
50WFB－C_3	2900	5	120	Y2－225M－2	45	380	7	50	40	520
		6	110							
		8	95							
50WFB－E	2900	7.5	85	Y2－180M－2	22	380	7	50	40	300
		12	80							
		15	75							
50WFB－E_1	2900	10	68	Y2－160L－2	18.5	380	7	50	40	280
		11	62							
		12	55							

性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
50WFB – E_2	2900	3.5	26	Y2 – 112M – 2	4	380	4	50	40	170
		6.3	25							
		7.5	24							
65WFB – A	2900	15	27	Y2 – 132S2 – 2	7.5	380	5	65	50	290
		20	26							
		25	24							
65WFB – A_1	2900	21	20	Y2 – 132S1 – 2	5.5	380	5	65	50	260
65WFB – A_2	2900	7	12	Y2 – 100L – 2	3	380	4	65	50	200
		12	11							
		15	9							
65WFB – B	2900	15	41	Y2 – 160M1 – 2	11	380	7	65	50	310
		25	38							
		30	36							
65WFB – BD	1450	32	12	Y2 – 132S – 4	5.5	380	5	65	50	260
		42	10							
		55	8							
65WFB – C	2900	15	58	Y2 – 160L – 2	18.5	380	5	65	50	370
		25	56							
		30	42							
65WFB – C_1	2900	22	45	Y2 – 160M2 – 2	15	380	7	65	50	340
65WFB – C_2	2900	7.5	19	Y2 – 112M – 2	4	380	5	65	50	240
		12.5	18							
		15	17							
65WFB – E	2900	15	82	Y2 – 200L1 – 2	30	380	7	65	50	450
		25	80							
		30	78							
65WFB – E_1	2900	21	55	Y2 – 160L – 2	18.5	380	7	65	50	340
		20	64							
65WFB – E_2	2900	7.5	27.5	Y2 – 132S2 – 2	7.5	380	5	65	50	290
		12.5	26							
		15	24.5							
65WFB – F	2900	15	127	Y2 – 250M – 2	55	380	7	65	50	785
		25	125							
		30	123							
65WFB – F_1	2900	18	108	Y2 – 225M – 2	45	380	7	65	50	685
		21.5	95							
		23.5	85							
65WFB – F_2	2900	7.5	38	Y2 – 132S2 – 2	7.5	380	5	65	50	290
		12.5	37							
		15	36							
65WFB – F_3	2900	7	34	Y2 – 132S1 – 2	5.5	380	5	65	50	260
		8	30							
		9	26							
80WFB – A	2900	30	27	Y2 – 160M1 – 2	11	380	7	80	65	380
		50	25.5							
		60	24							
		70	20							
80WFB – AD	1450	16	12	Y2 – 112M – 4	4	380	5	80	65	305
		25	11							
		30	10.5							
		38	8							

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型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸深 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
80WFB－B	2900	40	40.5	Y2－160M2－2	15	380	7	80	65	400
		50	38							
		60	34							
		65	31							
80WFB－BD	1450	25	15	Y2－132S－4	5.5	380	5	80	65	340
		35	13							
		48	10							
80WFB－C	2900	30	59	Y2－180M－2	22	380	7	80	65	460
		50	55							
		60	50							
80WFB－C_1	2900	40	46	Y2－160M2－2	15	380	7	80	65	400
		45	38							
80WFB－C_2	2900	15	19	Y2－132S2－2	7.5	380	5	80	65	320
		25	18							
		30	17							
80WFB－CD	1450	21	14	Y2－132S－4	5.5	380	5	80	65	340
		25	12							
80WFB－CD_1	1450	52	12	Y2－132M－4	7.5	380	5	80	65	320
		60	10							
		70	8							
80WFB－CD_2	1450	75	15	Y2－160M－4	11	380	7	80	65	380
		88	10							
		96	8							
80WFB－E	2900	30	84	Y2－200L2－2	37	380	7	80	65	480
		50	80							
		60	76							
80WFE－E_1	2900	30	60	Y2－160L－2	18.5	380	7	80	65	400
		40	50							
80WFB－E_2	2900	15	27	Y2－160M1－2	11	380	7	80	65	380
		25	26							
		30	23							
80WFB－E_3	2900	12	22	Y2－132S1－2	5.5	380	5	80	65	340
		20	18							
80WFB－F	2900	30	130	Y2－250M－2	55	380	7	80	65	690
		50	125							
		60	120							
80WFB－F_1	2900	26	103	Y2－225M－2	45	380	7	80	65	640
		30	95							
		40	80							
80WFB－F_2	2900	15	38	Y2－160M1－2	11	380	7	80	65	380
		25	36							
		30	35							
80WFB－F_3	2900	38	34	Y2－160M1－2	11	380	7	80	65	380
		40	30							
		50	26							
100WFB－A	2900	60	30	Y2－180M－2	22	380	7	109	80	560
		100	26							
		120	22							
100WFB－AD	1450	30	12	Y2－132M－4	7.5	380	5	100	80	450
		40	11							
		50	10							
		60	9							

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型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
100WFB – B	2900	60	40	Y2 – 180M – 2	25	380	7	100	80	580
		80	36							
		100	32							
		120	28							
100WFB – BD	1450	30	15	Y2 – 160M – 4	11	380	7	100	80	520
		40	14							
		50	13							
		68	11							
100WFB – BD_1	1450	110	16	Y2 – 160L – 4	15	380	7	100	80	520
		130	10							
		150	8							
100WFB – BD_2	1450	74	11	Y2 – 160M – 4	11	380	7	100	80	520
		93	10							
		112	8.5							
100WFB – C	2900	45	55	Y2 – 200L2 – 2	37	380	7	100	80	630
		80	48							
		100	45							
100WFB – C_1	2900	75	40	Y2 – 200L1 – 2	30	380	7	100	80	605
		90	35							
100WFB – C_2	2900	40	20	Y2 – 160M1 – 2	11	380	7	100	80	520
		50	19							
		60	18							
100WFB – C_3	2900	40	16	Y2 – 132S2 – 2	7.5	380	5	100	80	500
		45	15							
100WFB – E	2900	60	87	Y2 – 250M – 2	55	380	7	100	80	720
		80	80							
		100	65							
100WFB – E_1	2900	80	60	Y2 – 225M – 2	45	380	7	100	80	680
		100	51							
100WFB – E_2	2900	30	26	Y2 – 160M1 – 2	11	380	7	100	80	530
		50	25							
		55	24							
100WFB – E_3	2900	62	22	Y2 – 160M1 – 2	11	380	7	100	80	530
		68	18							
100WFB – F	2900	60	133	Y2 – 280M – 2	90	380	7	100	80	965
		80	125							
		100	115							
100WFB – F_1	2900	80	108	Y2 – 280S – 2	75	380	7	100	80	820
		90	90							
		100	80							
100WFB – F_2	2900	30	40	Y2 – 160M2 – 2	15	380	7	100	80	550
		50	38							
		60	34							
100WFB – F_3	2900	40	28	Y2 – 160M1 – 2	11	380	7	100	80	530
		43	26							
		46	23							
125WFB – A	2900	140	55	Y2 – 250M – 2	55	380	7	125	100	900
		180	50							
		220	45							

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125WFB – A_1	2900	170	40	Y2 – 225M – 2	45	380	7	125	100	860
		185	30							
125WFB – A_2	2900	70	20	Y2 – 160M2 – 2	15	380	7	125	100	720
		80	19							
		100	17							
125WFB – AD	1450	105	16	Y2 – 160L – 4	15	380	7	125	100	740
		110	15							
125WFB – AD_1	1450	190	10	Y2 – 160L – 4	15	380	7	125	100	740
		200	8							
125WFB – B	2900	120	88	Y2 – 315S – 2	110	380	7	125	100	1250
		200	80							
		240	72							
125WFB – B_1	2900	150	65	Y2 – 280S – 2	75	380	7	125	100	1005
		170	60							
		200	50							
125WFB – B_2	2900	80	26	Y2 – 180M – 2	22	380	7	125	100	770
		100	25							
		120	22							
125WFB – B_3	2900	85	22	Y2 – 160L – 2	18.5	380	7	125	100	750
		95	20							
		110	17							
125WFB – C	2900	160	132	Y2 – 315L1 – 2	160	380	7	125	100	1780
		180	125							
		200	118							
125WFB – C_1	2900	180	108	Y2 – 315S – 2	110	380	7	125	100	1570
		190	93							
		208	80							
125WFB – C_2	2900	80	40	Y2 – 200L1 – 2	30	380	7	125	100	790
		100	38							
		120	33.5							
125WFB – C_3	2900	90	23	Y2 – 160L – 2	18.5	380	7	125	100	750
		85	26							
		80	29							
125WFB – E	2900	70	52	Y2 – 200L2 – 2	37	380	7	125	100	820
		90	50							
		110	48							
125WFB – E_1	2900	85	45	Y2 – 200L1 – 2	30	380	7	125	100	790
		95	40							
		114	35							
125WFB – E_2	2900	60	40	Y2 – 180M – 2	22	380	7	125	100	770
		85	36							
		110	29							
125WFB – F	2900	80	78	Y2 – 225M – 2	45	380	7	125	100	920
		100	65							
		120	60							
125WFB – F_1	2900	115	80	Y2 – 280S – 2	75	380	7	125	100	1150
		105	90							
		90	100							

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型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
150WFB – A	2900	120	28	Y2 – 200L1 – 2	30	380	7	150	125	990
		160	26							
		200	23.5							
		240	21							
150WFB – AD	1450	160	20	Y2 – 180L – 4	22	380	7	150	125	960
		180	12							
		220	8							
150WFB – B	2900	156	40	Y2 – 225M – 2	45	380	7	150	125	1060
		180	36							
		225	30							
150WFB – B_1	2900	160	34	Y2 – 200L2 – 2	37	380	7	150	125	1020
		180	29							
		195	26							
150WFB – BD	1450	175	32	Y2 – 225M – 4	45	380	7	150	125	1080
		220	29							
		260	25							
150WFB – BD_1	1450	120	55	Y2 – 280S – 4	75	380	7	150	125	1305
		200	50							
		240	45							
150WFB – C	2900	160	47	Y2 – 250M – 2	55	380	7	150	125	1100
		180	45							
		200	38							
150WFB – C_1	2900	90	65	Y2 – 250M – 2	55	380	7	150	125	1100
		120	60							
		140	56							
150WFB – C_2	2900	165	36	Y2 – 200L2 – 2	37	380	7	150	125	1020
150WFB – C_3	2900	50	35	Y2 – 160L – 2	18.5	380	7	150	125	850
		60	30							
		75	25							
200WFB – AD	1450	250	26.5	Y2 – 250M – 4	55	380	7	200	150	1415
		400	25							
		450	23.5							
200WFB – AD_1	1450	300	22	Y2 – 225M – 4	45	380	7	200	150	1375
		330	18							
		360	15							
200WFB – AD_2	1450	250	20	Y2 – 225S – 4	37	380	7	200	150	1335
		320	15							
		380	10							
200WFB – AD_3	1450	260	16	Y2 – 200L – 4	30	380	7	200	150	990
		310	10							
		330	8							
200WFB – B	2900	160	220	Y2 – 355M – 2	250	380	7	200	150	3600
		200	210							
		240	190							
200WFB – BD	1450	240	42	Y2 – 280S – 4	75	380	7	200	150	1520
		350	37							
		420	33.5							
200WFB – BD_1	1450	340	28.5	Y2 – 250M – 4	55	380	7	200	150	1520

性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
200WFB – BD_2	1450	310	25	Y2 – 225M – 4	45	380	7	200	150	1375
		380	18							
		450	13							
		520	10							
200WFB – C	2900	280	80	Y2 – 315M – 2	132	380	7	200	150	2100
		380	75							
		420	60							
200WFB – C_1	2900	160	66	Y2 – 280S – 2	75	380	7	200	150	2050
		280	60							
		240	52							
200WFB – CD	1450	280	55	Y2 – 315S – 2	110	380	7	200	150	1890
		380	50							
		420	45							
200WFB – CD_1	1450	360	45	Y2 – 280M – 4	90	380	7	200	150	1760
200WFB – CD_2	1450	240	48	Y2 – 280S – 4	75	380	7	200	150	1660
		300	45							
		330	40							
		350	36							
250WFB – AD	1450	300	26.5	Y2 – 250M – 4	55	380	7	250	200	1556
		420	25							
		500	23.5							
250WFB – AD_1	1450	400	20	Y2 – 225M – 4	45	380	7	250	200	1450
		450	15							
		520	8							
250WFB – AD_2	1450	340	35	Y2 – 280S – 4	75	380	7	250	200	1760
		400	33							
		450	31							
250WFB – AD_3	1450	500	28.5	Y2 – 280S – 4	75	380	7	250	200	1760
		600	22.5							
		720	18							
250WFB – B	2900	200	57.5	Y2 – 280M – 2	90	380	7	250	200	1890
		260	55							
		290	52.5							
250WFB – B_1	2900	256	133	Y2 – 315L2 – 2	200	380	7	250	200	2595
		320	125							
		384	110							
250WFB – B_2	2900	272	91	Y2 – 315M – 2	145	380	7	250	200	2450
		340	85							
		408	74							
250WFB – BD	1450	350	45	Y2 – 280M – 4	90	380	7	250	200	1890
		380	40							
		450	37							
250WFB – BD_1	1450	300	50	Y2 – 280M – 4	90	380	7	250	200	1800
		350	47							
		380	45							
250WFB – BD_2	980	480	30	Y2 – 280M – 4	90	380	7	250	200	1800
		628	24.5							
		800	20							

性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m³/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
250WFB – BD₃	1450	168	58	Y2 – 280M – 4	75	380	7	250	200	1760
		210	55							
		252	49							
250WFB – C	2900	500	56	Y2 – 315M – 2	132	380	7	250	200	1460
		600	50							
250WFB – CD	1450	450	20	Y2 – 250M – 4	55	380	7	250	200	1556
		530	15							
		580	8							
250WFB – CD₁	1450	480	46	Y2 – 315S – 4	110	380	7	250	200	2200
		530	45							
		600	42							
250WFB – CD₂	1450	520	34	Y2 – 280S – 4	75	380	7	250	200	1160
		590	30							
		650	22							
250WFB – CD₃	1450	430	45	Y2 – 280M – 4	90	380	7	250	200	1360
		550	42.5							
		600	40							
300WFB – AD	1450	500	26.5	Y2 – 280M – 4	90	380	7	300	250	1980
		550	25							
		600	23.5							
300WFB – AD₁	1450	400	42	Y2 – 280M – 4	90	380	7	300	250	1988
		420	35							
		460	33							
		500	31							
300WFB – AD₂	980	750	30	Y2 – 315L2 – 6	132	380	7	300	250	2058
		960	25							
		1225	18							
		1300	10							
300WFB – AD₃	1450	600	20	Y2 – 280S – 4	75	380	7	300	250	2280
		800	12							
		880	8							
300WFB – AD₄	1450	350	50	Y2 – 315S – 4	110	380	7	300	250	2280
		400	47.5							
		450	45							
300WFB – BD	1450	250	57.5	Y2 – 315S – 4	110	380	7	300	250	2280
		320	55							
		345	52.5							
300WFB – BD₁	1450	678	55	Y2 – 315L2 – 4	200	380	7	300	250	2480
		780	47.5							
300WFB – BD₂	1450	590	50	Y2 – 315L1 – 4	160	380	7	300	250	2388
		740	40							
		900	30							
300WFB – BD₃	1450	600	57	Y2 – 315L2 – 4	185	380	7	300	250	2400
		750	45							
		850	40							
		978	35							
300WFB – C	2900	350	72.5	Y2 – 315L1 – 2	160	380	7	300	250	2600
		400	65							
		450	55							

性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
300WFB – CD	1450	860	42.5	Y2 – 315L2 – 4	200	380	7	300	250	2480
300WFB – CD_1	1450	700	57.5	Y2 – 355M – 4 Y450S1 – 4	220	380 10000	7	300	250	2508 3680
		780	52							
		890	45							
300WFB – CD_2	1450	540	72	Y2 – 355L – 4 Y450S3 – 4	280	380 10000	7	300	250	3350 4420
		720	67							
		900	55							
300WFB – CD3	1450	570	65	Y2 – 355M – 4 Y450S2 – 4	250	380 10000	7	300	250	2850 3870
		790	58							
		930	50							
300WFB – E	2900	420	95	Y2 – 355L – 2 Y4503 – 2	280	380 10000	7	300	250	3050 4120
		580	82							
		790	70							
300WFB – E_1	2900	406	110	Y2 – 355L – 2 Y4501 – 2	355	380 10000	7	300	250	3600 5600
		580	100							
		700	85							
300WFB – E_2	2900	370	95	Y2 – 355M – 2 Y4502 – 2	250	380 10000	7	300	250	2850 3870
		340	100							
		205	110							
300WFB – E_3	2900	633	98	Y4503 – 2	450	380	7	300	350	6500
		792	90							
		950	76							
350WFB – A	2900	500	60	Y2 – 315L2 – 2	185	380	7	350	300	2850
		600	50							
350WFB – A_1	2900	450	42.5	Y2 – 315S – 2	110	380	7	350	300	2630
		500	40							
		550	37.5							
350WFB – AD	1450	550	26.5	Y2 – 280M – 4	90	380	7	350	300	2500
		600	25							
		790	23.5							
350WFB – AD_1	1450	580	35	Y2 – 315M – 4	145	380	7	350	300	2780
		690	33							
		820	31							
350WFB – AD_2	1450	500	50	Y2 – 315M – 4	1450	380	7	350	300	2785
		535	47.5							
		590	45							
350WFB – AD_3	980	800	20	Y2 – 315M – 6	90	380	7	350	300	2500
		900	12							
		1000	8							
350WFB – AD_4	980	1000	20	Y2 – 315L1 – 6	110	380	7	350	300	2630
		1200	12							
		1300	8							
350WFB – B	2900	306	57.5	Y2 – 315S – 2	110	380	7	350	300	2630
		356	55							
		400	52							
350WFB – B_1	2900	818	102	Y4506 – 2	630	10000	7	350	300	9800
		1098	96							
		1314	84							

性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸深 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
350WFB – B_2	2900	826	126	Y5001 – 2	710	10000	7	350	300	10800
		1180	112							
		1410	95							
350WFB – B_3	2900	875	140	Y5002 – 2	800	10000	7	350	300	11000
		1250	125							
		1500	105							
350WFB – BD_1	1450	840	55	Y2 – 355M – 4	250	380	7	350	300	3085
		950	48	Y450S2 – 4		10000				4200
		1200	40							
350WFB – BD_2	1450	886	57.5	Y2 – 355L – 4	280	380	7	350	300	3088
		980	52.5	Y450S3 – 4		10000				4520
		1186	45							
350WFB – BD_3	1450	830	42	Y2 – 315L2 – 4	200	380	7	350	300	3408
		1050	35							
		1180	32							
350WFB – CD	1450	1200	35	Y2 – 355M – 4	220	380	7	350	300	2800
		1320	32	Y450S1 – 4		10000				3940
350WFB – CD_1	1450	1156	40	Y2 – 355M – 4	250	380	7	350	300	3490
		1280	35	Y450S2 – 4		10000				4750
350WFB – CD_2	1450	1128	45	Y2 – 355L – 4	280	380	7	350	300	3680
		1050	50	Y450S3 – 4		10000				4980
350WFB – CD_3	1450	1000	57.5	Y2 – 355L – 4	315	380	7	350	300	3780
		1200	50	Y450S4 – 4		10000				5250
350WFB – ED	1450	900	30	Y2 – 355L1 – 4	160	380	7	350	300	2380
		1096	25							
350WFB – ED_1	1450	1140	30	Y2 – 355L2 – 4	200	380	7	350	300	3400
		1370	23							
350WFB – ED_2	1450	800	70	Y2 – 355L – 4	315	380	7	350	300	3780
		900	65							
		1100	56	Y450S4 – 4		10000				5250
350WFB – ED_3	1450	810	42	Y2 – 355L2 – 4	185	380	7	350	300	2850
		1200	37							
		1400	30							
350WFB – ED_4	1450	900	85	Y450S3 – 4	450	10000	7	350	300	7600
		1200	75							
		1400	65							
400WFB – AD	980	1450	20	Y2 – 355M1 – 6	160	380	7	400	350	2860
		1520	18							
		1650	16							
		1850	15							
400WFB – AD_1	980	1680	10	Y2 – 315L2 – 6	132	380	7	400	350	2150
400WFB – AD_2	980	1600	8	Y2 – 315L1 – 6	110	380	7	400	350	1800
400WFB – AD_3	980	2050	5	Y2 – 315L2 – 6	145	380	7	400	350	1700

性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
400WFB – BD	980	1700	20	Y2 – 355M2 – 6	185	380	7	400	350	2500
		2085	15							
		2300	12							
400WFB – BD_1	980	1600	22.5	Y2 – 355M2 – 6	200	380	7	400	350	3650
		2000	18							
400WFB – BD_2	980	1880	25	Y2 – 355L – 6	250	380	7	400	350	3880
		2226	20	Y450S2 – 6		10000				4960
		2400	15							
400WFB – BD_3	980	1700	30	YLV3551 – 6	280	380	7	400	350	4100
		2506	20	Y450S3 – 6		10000				5260
		2750	16							
400WFB – CD	980	2380	8	Y2 – 355M1 – 6	160	380	7	400	400	2650
400WFB – CD_1	980	1880	12	Y2 – 315L2 – 6	145	380	7	400	400	2750
400WFB – CD_2	980	2280	12	Y2 – 355M1 – 6	160	380	7	400	400	2860
400WFB – CD_3	980	1905	18	Y2 – 355M2 – 6	200	380	7	400	400	3850
400WFB – ED	1450	1100	60	Y4501 – 4	355	10000	7	400	350	5780
		1200	57							
		1250	55							
400WFB – ED_1	1450	1600	45	Y4501 – 4	355	10000	7	400	350	5780
		1800	40							
450WFB – A	2900	1745	110	Y5003 – 2	850	10000	7	450	400	12000
		2094	96							
		2219	87							
450WFB – AD	1450	1650	35	Y2 – 355L – 4	315	380	7	450	400	4350
		2880	20	Y450S4 – 4		10000				5560
450WFB – AD_1	980	2980	5	Y2 – 315L1 – 6	110	380	7	450	450	2650
		2000	8							
450WFB – B	2980	1497	92	Y5002 – 2	800	10000	7	450	400	11500
		1872	85							
		2246	73							
450WFB – BD	980	2825	12	Y2 – 355M2 – 6	200	380	7	450	450	3650
450WFB – BD_1	980	2500	8	Y2 – 315L2 – 6	132	380	7	450	450	2850
450WFB – CD	1450	1400	86	Y5001 – 4	630	10000	7	450	400	7600
		1700	74							
		2000	59							
450WFB – CD_1	1450	1400	68	Y4503 – 4	450	10000	7	450	400	6800
		1700	59							
		2000	48							

性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor 型号 Model	功率 kw	电压 V	允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
450WFB – CD_2	1450	1400	46	Y4502 – 4	400	10000	7	450	400	6400
		1700	40							
		2000	32							
450WFB – ED	1450	1440	52	Y4503 – 4	450	10000	7	450	400	6800
		1600	50							
		1740	46							
450WFB – ED_1	1450	1600	58	Y4505 – 4	560	10000	7	450	400	7200
		1800	55							
		2000	52							
500WFB – AD	980	2300	25	YLV4002 – 6	315	380	7	500	450	4500
		2900	20							
		3200	15	Y4501 – 6		10000				5900
500WFB – AD_1	980	2600	20	YLV3551 – 6	280	380	7	500	450	4270
		2800	18							
		3000	16	Y450S3 – 6		10000				5780
500WFB – BD	1450	1800	62	Y4504 – 4	500	10000	7	500	450	7000
		2100	58							
		2350	50							
500WFB – BD_1	980	1400	40	YLV4002 – 6	315	380	7	500	450	4500
		1600	37							
		2000	23	Y4501 – 6		10000				5900
500WFB – BD_2	980	1418	51	Y5002 – 6	560	10000	7	500	450	9600
		2000	47							
		2600	40							
		2850	30							
		3000	20							
500WFB – BD_3	980	1760	55	Y5003 – 6	630	10000	7	500	450	9850
		2180	50							
		2725	40							
		3100	30							
		3200	20							
500WFB – CD	980	1850	27	YLV3551 – 6	280	380	7	500	450	4270
		2100	24							
		2350	20	Y450S3 – 6		10000				5780
500WFB – CD_1	1450	1500	50	Y4503 – 4	450	10000	7	500	450	7500
		1900	45							
		2200	40							

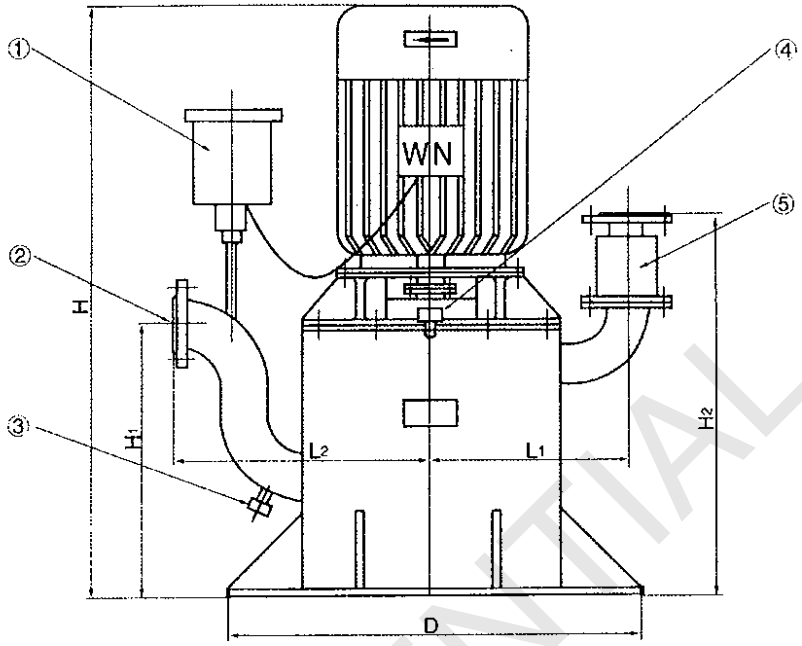
性能参数表 Performance & Parameter Table

型号 Model	转速 Rotating speed n r/min	流量 Flow Q m^3/h	总扬程 Total lift H M	配套电机 Conveying motor			允许吸泵 Allowed suction depth ≤m	吸液口径 Suction bore MM	出液口径 Release bore MM	整机重量 Weight kg
				型号 Model	功率 kw	电压 V				
500WFB－CD_2	980	2500	50	Y5004－6	710	10000	7	500	450	10240
		2700	45							
500WFB－CD_3	980	1800	60	Y5004－6	710	10000	7	500	500	10240
		2000	55							
600WFB－AD	980	3400	15	YLV3551－6	280	380	7	600	500	4380
		3150	10	Y450S3－6		10000				5940
600WFB－AD_1	1450	3240	60	Y5003－4	800	10000	7	600	500	11900
		3600	55							
		3850	50							
600WFB－AD_2	980	3200	40	Y5003－6	630	10000	7	600	500	9600
		3600	37							
		3850	32							
600WFB－AD_3	980	2700	32	Y4503－6	400	10000	7	600	500	6950
		3240	30							
		3600	26							
600WFB－BD	980	3150	10	Y2－355M2－6	200	380	7	600	500	3280
		3500	8							
		3800	6							
600WFB－BD_1	980	3850	38	Y5601－6	800	10000	7	600	500	11900
		4050	35							
		4280	30							
600WFB－CD	980	4020	5	Y4502－6	355	10000	5	600	500	5860
600WFB－CD_1	980	3600	60	Y5602－6	850	10000	5	600	500	13000
		3850	55							
		4080	50							
600WFB－CD_2	1450	3420	71	Y5004－4	900	10000	7	600	500	13200
600WFB－CD_3	1450	3168	65	Y5004－4	850	10000	7	600	500	12700
600WFB－ED	1450	3168	47.4	Y5001－4	630	10000	7	600	500	10600
800WFB－AD	980	4520	5	Y4502－6	355	10000	7	800	800	6400
800WFB－BD	980	5480	5	Y5001－6	500	10000	7	800	800	9400
800WFB－BD_1	980	5000	39	Y5002－6	900	10000	7	800	600	12900
		5700	36							
		6300	32							
800WFB－BD_2	980	5000	27	Y5004－6	710	10000	7	800	600	10300
		5700	24							
		6300	22							
800WFB－CD	980	6850	5	Y5001－6	500	10000	7	800	800	9400

四、外形尺寸(安装尺寸)表 Outer Dimension(Installation Size)Table

泵(圆锥型)外形及安装尺寸

Pump(Conicalness Model) Outline And Installation Dimension



泵(圆锥型)示意图

①电动空气控制阀 ②吸液口 ③放空口 ④加液口 ⑤出液口(带逆止阀,本公司供)

Pump (Conicalness Model) Figure

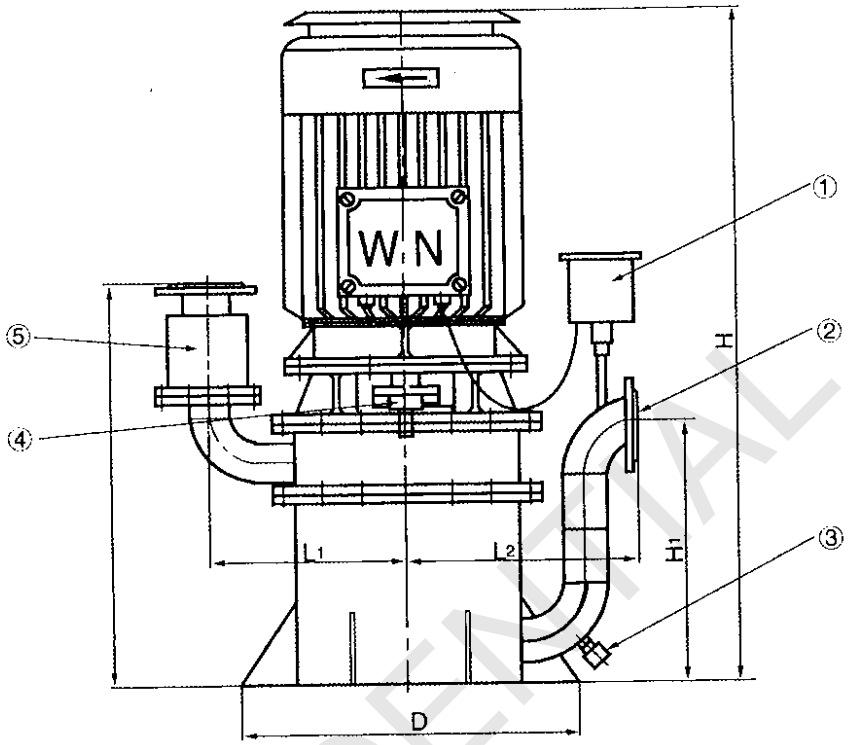
①Electric Air Control Valve ②Suction Inlet ③Liquid Drain Hole ④Feed Liquid Inlet ⑤Liquid Outlet(with check valve, offered by our company)

规格型号 Specification & Model	安装尺寸(mm) Installation Dim..				外形尺寸(mm) Outline Dim..	
	H_1	H_2	L_1	L_2	A	D
16WFB－A	250	450	185	220	680	450
32WFB－A	200	450	190	230	610	460
40WFB－A、$A_{(1-3)}$	335	480	240	300	740	460
50WFB－A、B_1	380	600	290	320	800	450
50WFB－$A_{(1-3)}$、B_3、C_2	370	590	330	340	740	540
50WFB－B、C、E_1	420	620	280	380	1080	560
50WFB－B_2、BD、E_2	370	590	260	320	760	550
65WFB－A、A_1、BD、E_2、$F_{(2-3)}$	370	610	300	340	850	520
65WFB－A_2、C_2	330	580	250	300	740	460
65WFB－B、C_1、E_1	440	700	320	380	1120	560
80WFB－A、B、C_1、$E_{(1-2)}$、$F_{(2-3)}$	470	700	350	420	1100	560
80WFB－AD	400	680	320	380	800	600
80WFB－BD、CD、$CD_{(1-2)}$、C_2、E_3	320	660	370	310	900	520
100WFB－A、BD_1、F_2	480	790	360	450	1140	560
100WFB－BD、BD_1、C_2、$E_{(2-3)}$、F_3	440	720	350	420	1140	610
100WFB－AD、C_3	400	700	300	340	1080	510
100WFB－B	450	720	350	460	1270	560
100WFB－C、C_1	500	800	350	530	1400	610
125WFB－A、A_1	570	960	430	500	1450	850
125WFB－A_2、B_2、B_3、C_3、E_2	470	780	400	460	1180	620
125WFB－AD、AD_1	470	780	420	480	1180	700

泵(圆锥型)外形及安装尺寸 Pump(Conicalness Model) Outline And Installation Dimension

規格型号 Specification & Model	安装尺寸(mm) Installation Dim..				外形尺寸(mm) Outline Dim..	
	H_1	H_2	L_1	L_2	H	D
125WFB – B_1	630	1020	430	600	1580	950
125WFB – C_2、E、E_1	470	780	420	490	1240	700
150WFB – A、B_1、C_2	590	900	470	660	1440	700
150WFB – AD	560	890	520	590	1420	700
150WFB – B、BD	585	900	440	630	1400	680
150WFB – BD_1	600	890	550	680	1680	760
150WFB – C、C_1	550	890	510	630	1480	760
150WFB – C_3	480	800	410	450	1240	620
200WFB – AD、BD_1	680	1160	600	650	1450	1000
200WFB – AD_3	640	1030	450	550	1300	900
200WFB – $AD_{(1-2)}$、BD_2	680	1160	600	650	1280	1000
200WFB – BD、$CD_{(1-2)}$、C_1	680	1160	600	650	1280	1000
200WFB – CD、C	680	1160	700	750	1800	1100
250WFB – AD、AD_1、CD	770	1210	600	930	1620	1000
250WFB – $AD_{(2-3)}$、BD、$BD_{(1-3)}$、B、$CD_{(2-3)}$	700	1180	740	1560	790	1000
250WFB – CD_1、C	740	1250	520	580	2280	1100
300WFB – AD、AD_1、AD_3	770	1350	700	1250	1700	1200
300WFB – AD_2、AD_4、BD、$BD_{(1-3)}$、CD、CD_1、C	790	1450	695	1250	2280	1300
300WFB – $CD_{(2-3)}$	1260	1680	1160	1450	2880	1600
350WFB – AD、AD_3	1060	1300	1200	1500	2180	1300
350WFB – $AD_{(1-2)}$、AD_4、B、BD_3、ED、ED_1、A、A_1、ED_3	860	1480	950	1250	2400	1200
350WFB – $BD_{(1-2)}$、CD、$CD_{(1-3)}$	860	1480	1200	1650	2400	1200
400WFB – AD、$AD_{(1-3)}$	920	1680	1250	1600	2200	1700
400WFB – BD、BD_1、CD、$CD_{(1-3)}$	920	1680	1200	1600	2550	1700
400WFB – $BD_{(2-3)}$、ED、ED_1	920	1680	1300	1800	2750	1600
450WFB – CD_1、CD_2、ED、ED_1	1200	2000	1300	1800	3700	1700
500WFB – AD、AD_1、BD_1、CD	1500	2500	1400	1950	3200	1800
500WFB – BD、$BD_{(2-3)}$、CD_1	1500	2500	1400	1950	4000	1800
500WFB – $CD_{(2-3)}$	1500	2500	1400	1950	4000	1800
600WFB – AD、CD	1600	2900	1500	2300	3100	2000
600WFB – AD_1、AD_2、BD_1、$CD_{(1-3)}$、ED	1600	2900	1500	2300	4300	2000
600WFB – BD	1600	2900	1500	2300	3200	2000
600WFB – AD_3	1600	2900	1500	2300	3500	2000
800WFB – AD	1900	3200	1700	2500	3800	2200
800WFB – BD、CD	1900	3200	1700	2500	4000	2200
800WFB – BD_1、BD_2	1900	3200	1700	2500	4300	2200

泵(多级型)外形及安装尺寸
Pump (Multi – class Model) Outline And Installation Dimension



泵(多级型)示意图
①电动空气控制阀 ②吸液口 ③放空口
④加液口 ⑤出液口(带逆止阀,本公司供)

Pump(Multi – class Model) Figure
①Electric Air Control Valve ②Suction Inlet ③Liquid Drain Hole ④Feed Liquid Inlet ⑤Liquid Outlet(with check valve, offered by our company)

规格型号 Specification & Model	安装尺寸(mm) Installation Dim..				外形尺寸(mm) Outline Dim..	
	H_1	H_2	L_1	L_2	H	D
50WFB – C	420	700	280	380	1080	640
50WFB – C_1	390	610	320	310	880	550
50WFB – C_3	560	820	400	480	1680	760
50WFB – E	440	700	300	380	1120	640
50WFB – E_1	420	700	280	380	1120	640
65WFB – C	420	700	320	380	1120	640
65WB – E	450	760	340	380	1200	700
65WFB – E_1	420	700	320	380	1120	640
65WB – F、F_1	540	780	360	400	1240	700

泵(多级型)外形及安装尺寸 Pump (Multi – class Model) Outline And Installation Dimension

规格型号 Specification & Model	安装尺寸(mm) Installation Dim..				外形尺寸(mm) Outline Dim..	
	H_1	H_2	L_1	L_2	H	D
80WFB – C	475	770	360	450	1200	600
80WFB – E_1	450	760	350	420	1100	600
80WFB – E	420	720	360	400	1240	700
80WFB – F	560	850	380	430	1240	940
80WFB – F_1	520	800	360	410	1200	850
100WFB – E、E_1	570	860	400	460	1300	700
100WFB – F、F_1	630	1000	400	520	1450	950
125WFB – A	630	1020	430	600	1580	900
125WFB – B、C_1	580	970	550	700	1880	840
125WFB – B_1	630	1020	430	600	1580	950
125WFB – C	630	1020	550	600	1580	1000
125WFB – F	560	950	400	460	1300	750
125WFB – F_1	630	1020	430	600	1580	950
150WFB – C_1	650	1100	550	630	1580	950
200WFB – B	680	1160	700	750	1940	1200
200WFB – C	680	1160	700	750	1800	1200
250WFB – B	820	1150	520	580	1650	1200
250WFB – B_1、B_2、C	820	1150	520	580	1780	1200
300WFB – B、C	900	1200	560	620	1850	1200
300WFB – CD_2、CD_3	1100	1300	560	650	1950	1200
300WFB – E、E_1、E_2	1100	1300	580	650	1950	1200
300WFB – E_3	1100	1300	580	650	2400	1200
350WFB – A、B	1100	1350	620	680	1950	1200
350WFB – B_1、B_2、B_3	1250	1480	1000	1350	2700	1800
350WFB – ED_2	1250	1650	750	800	2450	1400
350WFB – ED_4	1250	1480	1100	1500	3360	1800
450WFB – A、B、CD	2000	2000	820	900	2850	1600
450WFB – CD_1	1500	2000	820	900	2650	1600
500WFB – BD	1650	2200	900	980	2850	1600
600WFB – AD_1	1850	2500	980	1080	3000	1800
600WFB – CD_1	1850	2500	980	1080	3200	1800

五、使用须知

(一)水泵部分

(1)安装完毕,从"引流口"灌满排注的介质,作"首次引流",以后使用不必引流。请拧紧"引流口"拼帽,防止漏气而影响自吸。

(2)适应颗粒指标(单位 mm)

吸液口直径	50以下	50－100	50－200	200－300	300－400	400以上
颗粒直径	<3	<4	<4.5	<5	<6	<7

(3) 进口管道无须装底阀和阀门,但必须安装随机配备的滤网,防止超标颗粒吸入而损坏水泵和影响自吸功能。

(4) 输送浓硫酸时禁止用水作引流,防止造成人身和设备事故。

(5) 启动前必须检查水泵轴转动是否灵活,用点动方式检查运转方向是否与转向标记一致。

(6) 不可将吸、出液管道的重量支承在水泵进出口法兰上,而应固定在支承架上(支架用户自备)。管道连接各部位必须紧密、不漏气、否则影响自吸功能流量、扬程。

(7) 排注有结晶或沉淀物质的液体时,如一段时间内停泵不用,应从"放空口"排出泵腔内引流液,防止结晶和沉淀物滞留泵腔内,使二次启动时造成损坏。再次使用时按第(1)条重作"引流"。如周期性几天只排液一次,请每隔 24 小时参考"安装、操作示意图"(四)之提示 A 程序运行 20 分钟,以利减轻结晶和沉淀程度。

(8) 如长时间停泵再用,启动前,请从"引流口"检查引流液是否充足,如不足,请补足后才能启动运行。

(9) 输液时,流量、扬程(压力)、吸程三项指标,必须严格控制在选定型号所规定的范围内。否则,将导致电机超电流波动而影响正常运行。

(10) 如在低于地面的溶池和容器中使用,请参考"安装、操作示意图"(一)。

Notice For Usage

(一)Water pump parts

(1)After installation, fill the poured media from "draft opening" to be "initial draft", No needing for draft in later usage. Please screw up "draft opening" split nut to prevent from air leakage which may influence automatic feed.

(2) Applicable granule index(mm)

Suction Inlet Dia.	Less Than 50	50－100	50－200	200－300	300－400	More Than 400
Granule Dia.	<3	<4	<4.5	<5	<6	<7

(3) An imported pipeline is not needed to install a bottom valve, and an valve filter screen should be installed along with the machine to prevent from sucking in standard－exceeding granules which may destruct water pump and influence automatic feed function.

(4) When delivering concentrated sulfuric acid, water is forbidden to be used as draft to prevent from causing personal & equipment accidents.

(5) Before starting, water pump spindle should be examined for its flexibility, examine by pointed motion ways to see if running directions coincides with turning marks.

(6) Don' t bear the weight of liquid－soaking & releasing pipeline on water pump liquid inand outlet flange. It should be fixed on supporting frame which is self－reserved by consumers. Pipeline jointing parts should be tight with nongas leakage. Otherwise it may influence automatic feed function and flow lift.

(7) When releasing and pouring liquid with crystal or sediment, if the pump has not been used for some time, draft liquid inside pump body should be exhausted from "Liquid drain hole" to avoid crystal & sediment staying inside pump chamber and causing damage in twice starting. "Draft"again according to Item 1 In re－use.

(8) If the pump has been used for a long time, when re－use itm before starting, examine whether draft liquid is ample or not from "draft inlet" . If it is insufficient, fill enough draft liquid for its automatic feeding.

(9) When conveying the liquid, flow、lift(pressure)、suction head three items of index should strictly be controlled within selected type stipulated range. Otherwise, it will cause motor super－current to wace and influence its normal running.

(10) If it is being used in container pool and container below the ground, please refer to "installation & operation conceptual diagram" (1).

五、使用须知

(11)如将水泵置于液面以下的环境中使用，请参考“安装、操作示意图”(二)。图二为正压进水型水泵，同样具有运行时密封无摩擦，不磨损，无泄漏，寿命长等独特优点。为了解决停泵后的静压泄漏，结构上采用了停机密封装置或在进口配备一个与水泵同步运行的电磁阀。

(12) 如给高位槽或水塔供液时，请参考“安装、操作示意图”(三)。

(13) 排注产生气泡、比重大、扬程高和出液管路系统水柱静止压力大的介质时，为了加快排气速度，缩短自吸时间，请参考“安装、操作示意图”(四)之提示 B 程序。

(14)如在利用池水的消防系统中使用时，为了最大限度的缩短出水时间，请参考“安装、操作示意图”(五)。且配管时不宜扩径，因进液管流速已控制在国家规范的指标内，扩径会直接影响出液时间。

(15) 替代管道泵和封闭式循环系统中使用时，请参考“安装、操作示意图”(二)。

(16)“引流口”、“放空口”、“自吸排气装置”、“户外罩” 热源进出口均与安装尺寸和系统连接无关。“自吸排气装置”只在垂直扬程高且出液管路系统水柱静止压力大的情况下启用，一般工艺环境则不需启用。

(17) 本泵是采用气分离产生真空自吸原理。如设计使用在“对出液速度有绝对要求的环境中”，安装时不可扩大水泵的吸液管直径，否则将影响吸液速度。(无“绝对速度要求”的环境除外)。

(18)本公司制造的长距离吸液自吸泵，可适应在吸液管路水平距离≤150 米，垂直高度≤7 米的特殊环境中输送各种液体。启泵前除应按照使用须知提示操作外，还应遵照设计方案和各自的介质及工艺特征规范作业：即须将水平吸液管路灌满液体，否则抽空排气的时间过长，会导致泵腔内引流液体升温而产生不必要的后果。

(19)防冻型水泵热源必须采用热水或蒸汽，且全天候泵腔内不得低于 5℃ (正常输液作业时可不加温)。

(20) 聚丙稀材质水泵绝对禁止缺介质运转。

(21)所有材质水泵绝对禁止反运转。

(二)、电动空气控制阀部分

A、电动空气控制阀(简称电控阀)的型号

Notice For Usage

(11) If use water pump in environments below liquid surface, please refer to “installation & operation figure” (2) .Picture(2) is pressing into the water type water pump.While working, it also has unique advantages such as nonfriction, non－abrasion, non－gas leakage, long－life and so on, In order to solve the leakage of quiet pressure after parking pumps, In structure we adopt a sealed device when the machine isn’t working or import and allocate an electromagnetic valve that water pump run in step.

(12) If supply liquid for high level tank or water tower, please refer to “installation & operation figure” (3).

(13) For media which produces bubble with large specific gravity, high lift and large outlet pipeline system stationary pressure during exhausting and pouring, In order to quicken exhaust speed, reduce automatic feed time, please refer to “installation & operation figure” (4).

(14) When put in use by utilixing pool water fire－fighting system, in order to maximumly reduce release time, please refer to “installation & operation figure” (5)

(15) When use it to replace for inline pump and enclosed cyclic system, please refer to “installation & operation figure” (2)

(16) “Draft hole”、“liquid drain hole”、“automatic feed exhaust device”、“outdoor cover”、“Heat source inlet & outlet” have nothing to do with installation size and system connection. “Automatic feed exhaust device” is only used under circumstances of high vertical lift and large liquid release pipeline system water－column static pressure.It is unfit for common technological environments.

(17) This pump applies the principle which forms vaccum self－suction by air separation. If it is designed and used in “an environment with absolute requirements for liquid release speed”, water pump’s suction pipe diam can’t be expanded during installation, otherwise it will influence suction speed (Except environments with non－ “absolute speed requirements”).

(18) Long distance liquid self－suction pump manufactured by our company is suitable for imbibition piping level distance≤150m, vertical height ≤7m to transportation various liquid in special envionment. Before starting, should follow design plan and every medium and technological trait to work except operating according to notice for use, must fill liquid with level imbibition Piping, otherwise exhaust time too long, result in liquid increasing tempreture in the chamber of a pump and cause unnecessary consequences.

(19) Prevent frostbite type pump heat source must adopt hot water or steam, and more than 5℃ im the chamber all day (May be not to heat when it work in normal infusion)

(20) The water pumps made from polypropylene are not allowed to work without medium absoletely.

(21) All the water pumps are not allowed to revolve absoletely.

(二)Electric air－controlled valve parts

A、The parts of electrically controlled valve

型　号	规格参数	配套自吸泵范围
DKF－25	螺纹连接直径M25	16WFB－65WFB
DKF－72	螺纹连接直径M32	80WFB－125WFB
DKF－50	螺纹连接直径M50	150WFB－800WFB

B、电控阀的作用

电控阀是自吸泵的重要组成部分之一，启泵时电控阀密闭泵体吸液管上的进气口，使自吸泵泵腔内形成真空，完成自吸全过程。停泵时电控阀开启，空气从密闭口进入水泵吸液管内迅速隔离吸液管内共流的介质，确保泵腔的介质不随吸液管腔内的介质回落到吸液池中，以达到消除虹吸的目的，确保自吸泵二次自吸时正常自吸及运行。

C、电控阀的工作原理

电控阀与机电工作电源并联（三相三线380V电源任意两线）。自吸泵电机启动时，电控阀同时被同步启动，电控阀延时电路开始充电，当充电完毕后继电器断开，电容器对电磁线圈放电，驱动阀芯杆密闭吸液管上进气口，使自吸泵开始自吸并进入正常运行状态。当停电使电机断电，电控阀电磁线圈同时断电，受压缩弹簧反作用的控制。电控阀芯杆复位后打开密闭口使空气进入吸液管腔，使泵腔内的介质与吸液管内的介质隔离，消除虹吸，确保自吸泵腔内介质贮量，供下次启泵时自吸及正常运行。

D、使用与维护须知

1、非专业电气人员，请勿打开护罩，以防触电事故。

2、更新或维修后安装时，电缆务必与水泵电机接线柱连接可靠。

3、和水泵连接管丝扣，必须拧紧不漏气，否则影响自吸。

4、“水泵部分”的(11)和(15)两种环境，不宜配用本阀。

5、电控阀经过长时间的使用（约六个月），活塞①与密闭垫③之间会产生少量的磨损或变形，必要时可做微量调整。

6、调整方法及步骤(如图)：a、松开固定(调整)螺钉④；b、顺时针转动阀体密封拼帽四分之一圈⑤；c、锁紧固定螺钉④。

Model	Characteristics	Scope of the fitting self－absorption Pump
DKF－25	Thread connection Dia.M25	16WFB－65WFB
DKF－72	Thread connection Dia.M32	80WFB－125WFB
DKF－50	Thread connection Dia.M50	150WFB－800WFB

B.The Function of Electrically Controlled Valve

The electrically controlled valve is one of the important parts of an automatic feed pump.When an automatic feed pump is turned on, it will close the air inlet of the pipette, which causes the vaculim in the automatic feed pump and completes the whole process of auctmatic feed.When an automatic feed pump is turned off, it will be opened, which causes air to enter into the pipette from the clense tuyere and ropidly isolates the medium flowing altoghter in the pipette.Thus,it can ensure the medium in the pump not to recede into the imbibition.pond along with that in the pipette so as to eliminat rainbow absorption, which can make the pump automatically feed of work properly when it absorbs automatically a second.

C、The principles of Electrically Controlled Valve.

The electrically controlled valve is connected to the mechanical of electrical work power,by parallel(You can choose two lines of three－phase three－line 380V casualy) .When the self－priming pump is turned on,the electrically controlled valve is turned on at the sametime.At that time,its delay circuit sarts to be charged.After it is changed, the electric appliance is cut off.The capacitor begins to discharge on the magnetic line crcles and the core pole of the actuating vlave airtights the inlet of the pipette.Which causes the self－priming pump to start the self－absorption and work normally.When the power is cut off, the electrical machinery stops working, so the magnetic line circles of the electricaly controlled valve do,which is controlled by the counter reaction of the pressed reed, After the reoposition of the core pole, it opens the dense tuyere to make air enter into the pipette,and make the medium in the pump isolate from that in the pipette, and diminate rainbow, absorption, which can ensure the storage of the medium in the self－absorption pump to automatic feed of work nomally when the pump is turned on the next time.

D、Directions for operation and maintenance

1、The non－specialized electrical personnel mustn' t open the guard shield in case of accidents caused by touching electricity.

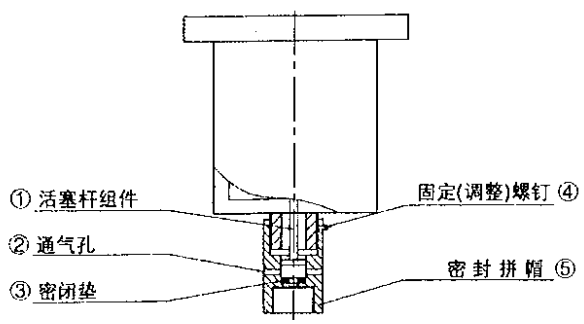
2、When the renewal or the serivce installs,the electrical cable must be reliable with the water pump electrical machinery wiring column connection.

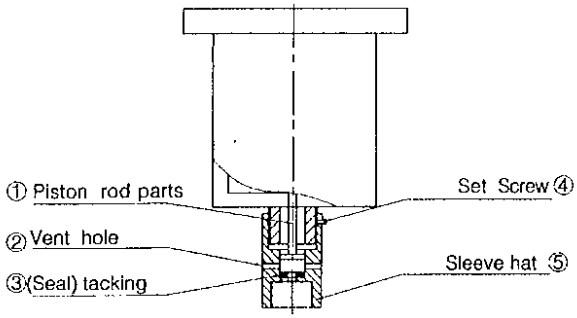
3、The thread kin connected to the water pump must screw tight so as not to leak air, otherwise influence self－absorption(automatic feed function)

4、Two circumstances(11) and (15) of the water pump parts aren't fit to use the valve.

5、After the electrically controlled valve is used for a long time (about six months),there is a little attrition or distortion between the piston①and airtight pad③.If necessary it can be adjusted slightly.

6、The ways and steps of adjustment following the picture; a.loosen the clamping screw④; b.Revolve the sleeve hat of the valve for one－fourth of the circle according to the clockwise⑤;c.Lock the clamping screw.





(三)自动控制装置部分

凡配套自控装置的用户，届时另行提供线路图。并请注意以下事项：

(1)非专业电气工作人员，请勿打开屏门，以防触电事故。

(2)本装置为三相供电，电压 380V，频率 50HZ。必须在进线回路中加装断路保护等。

(3)电源接通后，请将“开·电源·关”按钮拨向“开位”，“电源指示”灯亮，本装置即处于待命状态。

(4)确定运行方式请用“自动·停·手动”按钮选择。“手动启动”和“手动停止”钮只适用手动运行方式。自动方式将根据“上、下限液位传感器”定位自动运行。

(5)本装置分“挂壁”和“落地”两种安装方式。功率在 30KW 以下的，采用“挂壁式”直接启动；37－75KW 功率的采用“落地屏式”星三角降压启动；90KW 以上功率的，采用“落地屏式”自耦减压启动。启动方式也可按用户需要确定。

本装置与其它系统无连接关系，恕不提供外形开关尺寸。

(6)务必保护好传感器导线，防止人为损坏功能。

(7)调整水泵电机转向不应改变装置内部的接线顺序，而应在电机接线盒内调换线头。

(8)设定传感器上、下限位置时，请参考“安装、操作示意图”(一)或(三)。

(三) Automatic control device parts

For consumers using this self－control device, at the appointed time, circuit diagram would be offered additionally. Please pay attention to the following notices.

(1) Non－professional electrical staff member should not open screen gate to avoid electroshock accidents.

(2) This device is three－phase alternative electricity with 380V voltage and 50Hz frequency. Broken circuit protection etc should be installed in coil－in loop.

(3) When power throws in, please stir“on · mains · off” button to“on“, “Power source light” is bright, this device is in order－awaiting conditions.

(4) For running method confirmation, please use “automatic · stop · manual” for selections. “manual start” and“manual stop” buttons are only suitable for manufal running method. Automatic method will locate and automatically run according to “upper 、lower limit liquid level sensor” .

(5) This device has two kinds of install ways (include: wall－hanging type and floor type). Power is below 30KW, adopt “wall－hanging type” to start directly please adopt “wall－hanging type” for direct starting; power from 37KW to 75KW, please adopt “floor screen type” star－decta reduced voltage starting power abore 90KW, please adopt" floor screen type" auto coupling reduced voltage starting. Its starting method may be decided as per consumers' requirements.

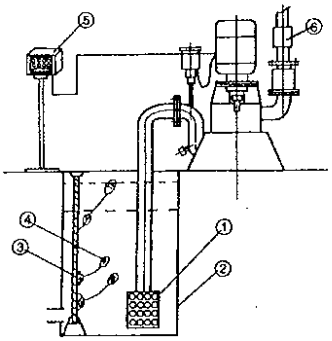
This device has no connectng relations with other systems. Excuse us for not offering outer shape & size.

(6) Be sure to well－protect the sensor conductor and prevent from man－made function damages.

(7) The adjustment of water pump motor turning directions should not change inner device wiring sequence. One should change bur inside motor terminal box.

(8) For setting sensor upper, lower limit liquid level, please refer to “installation & operation figure” (1) or (3).

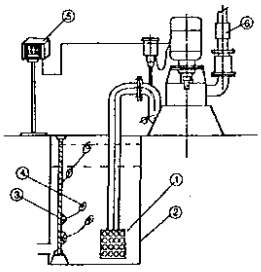
图(一) 在低于地面的容池和容器中使用



①滤网
②溶池(或容器)
③固定夹
④开关球体
⑤落地式自控装置
(传感器连接示意)
⑥出液口控制阀
(本公司不提供)

说明:如采用挂壁式自控和落地屏式自控,传感器连接请参照⑤

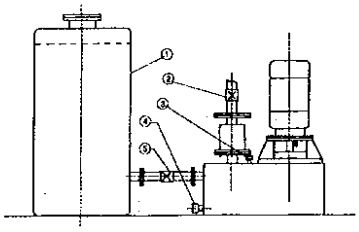
Fig(1) use in container pool and container under the ground



①Filter screen
② Container pool(or container)
③Fixed clip
④Switch ball body
⑤ Floor type self – control device(sensor joint figure)
⑥Liquid outlet control valve(not offered by our company)

Descriptio: If you employ wall type self – control and fllor screen type selc – control, for sensor connection, please refer to⑤

图(二) 在液面以下和封闭式循环系统中使用



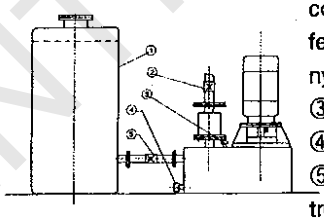
①容器
②出液控制阀
(本厂不提供)
③加液口
④放液口
⑤吸液控制阀
(本公司不提供)

使用操作规程

启泵规程:1. 开启②, 2. 开泵, 3. 开启⑤。(即正常运转行状态)

停泵规程:1. 关闭⑤, 2. 关闭②, 3. 停泵。(即正常停止状态)

Fig(2) for use under liquid surface and in enclosed cyclic system



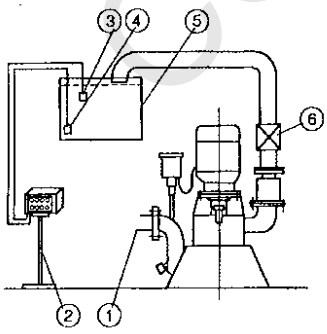
①Container
② Liquid releasing control valve(not offered by our company)
③Feel Inlet
④Liquid drain hole
⑤Liquid soaking control valve (not offered by our company)

Reles of use & operation

Pump start rules: 1.Start②, 2.Pump – open, 3.Start⑤(i.e.normal running condition)

Pump stop rules: 1.Stop⑤, 2.Stop②, 3.Pump stop(i.e.normal stopping condition)

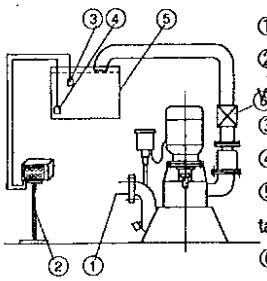
图(三) 给高位槽和水塔供液



①接介质源
②落地式自控装置
(传感器连接示意)
③上限传感器(倒置)
④下限传感器(倒置)
⑤水塔(或高位槽)
⑥出液口控制阀
(本公司不提供)

说明:如采用挂壁式自控和落地屏式自控,传感器连接请参照②

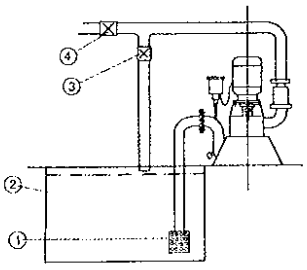
Fig(3) supply liquid for high level tank and water tower



①Connect with media source
②Floor type self – control device(sensor joint figure)
③Upper limit sensor(inver)
④Lower limit sensor(inver)
⑤ Water tower(or high level tank)
⑥Liquid outlet control valve(not offered by our company)

Description: If you employ wall type self – control and fllor screen type self – control, for sensor connection, please refer to②

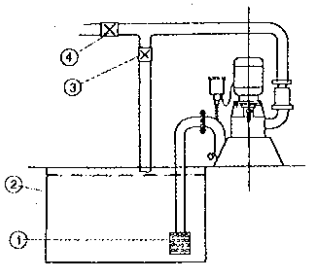
图(四) 排注产生气泡、比重大、扬程高的介质时的操作程序



①滤网
②溶池
③回流阀
(本厂不提供)
④出液控制阀
(本厂不提供)

提示 A 程序:(保养运行)
启泵程序:1. 关阀④, 2. 开启③, 3. 启泵。
停泵程序:1. 停泵, 2. 关闭③。
提示 B 程序:(正常输液)
启泵程序:1. 关阀④, 2. 开启③, 3. 启泵。
4. 待回流管正常出液后,先开启④,再关闭③。
停泵程序:1. 停泵, 2. 关闭④

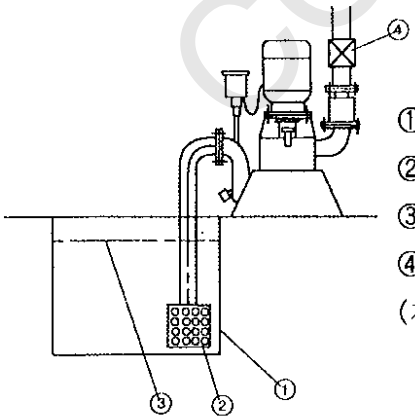
Fig(4) operating procedure for media creating bubble with large specific gravity and high lift during exhaust and pour



①Filter screen
②Container pool
③ Reflux valve(not offered by our company)
④Liquid release control valve(not offered by our company)

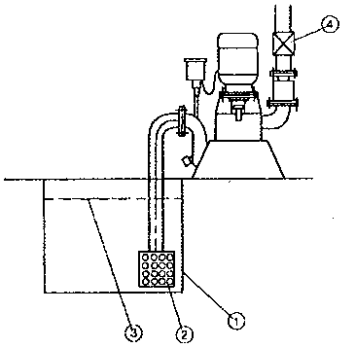
Prompt A procedure:(maintenance & running)
Pump start procedure:
1.Valve shut④ 2.Open③ 3.Pump open
Pump stop procedure:
1.Pump stop 2.Shut③
Prompt B procedure:(normal liquid conveyance)
Pump start procedure:
1.Valve shut④ 2.Open③ 3.Pump open
4.After reflux pipe normally releases the liquid. first open④, the shut③.
Pump stop procedure
1.Pump stop 2.Shut④

图(五) 在利用池水的消防系统中使用(也供利用河水的消防系统参考)



①消防水池
②滤网
③液面
④出液控制阀
(本厂不提供)

Fig(5) put in use by utilizing pool water fire – fighting system(also for reference of utilizing river fire – fighting system)



①Fire – fighting pool
②Filter screen
③Liquid surface
④Liquid release control valve(not offered by our company)

七、一般故障的排除办法 Removing Method Of Common Breakdowns

(一)水泵部分 Water pump parts

故障 Breakdown	故障原因 Breakdown cause	排除方法 Removing method
电机不转 No rotation of motor	1.电机已损坏； 1.Motor has been damaged 2.电源不通。2.Non – close of mains	1.修复或更换电机；1.Repair or change motor 2.检查接通电源。2.Examine cut – in mains
水泵不出液 Non – release water pump	1.引流量不足； 2.吸液端某只法兰、阀门或管路某处大量漏气； 3.引流口或放空口拼帽不紧，或拼帽内没有垫圈； 4.容器或液池内无液。 1.Insufficient draft volume; 2.Large amounts of gas leakage in liquid soaking end certain flange, valve or pipeline; 3.Non – tight in draft opening or empoty out let split nut, or there is no gasket inside split nut; 4.No liquid in container or liquid pool.	逐一检查，针对排除。 Examine one by one, purposely fixing
流程、扬程（压力）不达标 Flow, lift (pressure) not reach the standard	1.电压过低，额定转速达不到； 2.电机反转； 3.底部滤网堵塞，过流不足； 4.吸液端某只法兰、阀门或某处管路慢性漏气，影响水泵真空度； 5.容器或液池内液量太少，时而吸进空气。 1.Over low voltage, insufficient rated rotating speed; 2.Motor reverse – rotation; 3.Bottom filter screen block – up, insufficient over – current; 4.Slow gas leakage in liquid – soaking end certain flange, valve or certain pipeline which influence water pump vacuum de – gre; 5.Too less liquid in container or liquid pool, sometimes suck in air.	逐一检查，针对排除。 Examine one by one, purposely fixing
电机与水泵连接部位渗漏 Seepage in motor & pump connecting parts	1.启停瞬间渗漏，正常运行后现象消失； 2.运行时一直渗漏（可能是密封装置已损坏，或实际扬程、压力与该水泵参数差异大）。 1.Starting & stop instantaneous seepage, this phe nomenon disappears after normal running; 2.All along seepage during running (perhaps seal device has been damaged, or there is overlarge difference between actual lift, pressure and this pump parameters.)	1.引流液灌注过满，不属故障； 2.检查密封装置是否损坏，重新计算实际工作压力是否超过该泵的规定参数；如密封装置已损坏，请考虑修理或更换；如压力参数差异过大，请考虑重新选型或调整实际工作压力。 1.Over – full draft liquid pour which does not belong to fau\t; 2.Examine whether seal device has been damaged, recalculate if actual operating pressure exceeds this pump's stipulated parameter. If seal device has been damaged, please consider repairing or changing it. If pressure parameter differ ence is overlarge, please consider re – choosing the type or adjusting actual operating pressure.

(二)自控装置部分 Automatic controlling device parts

故障 Breakdown	故障原因 Breakdown cause	排除方法 Removing method
自控状态水泵不能启动 Water pump can' t start under automatic controling conditions	1.某只传感器接触不良； 2.传感器上、下限或上、下端安装颠倒； 3.电机或保险丝已损坏； 4.容池内无液，传感器不作用。 1.Poor contact of certain sensor; 2.Reversed sensor upper、lower limit or up per、lower end installation; 3.Motor or fuse has been damaged; 4.No liquid in container pool, nonfunction from sensor	1.恢复传感器良好接触； 2.正确安装传感器，请参考"安装操作示意图"(一)或(三)； 3.修复电机或保险丝； 4.检查池液情况。 1.Restore sensor sound contact; 2.Correctly install sensor, please refer to "installation & operation conceptual diagram" (1) or (3); 3.Repair motor or safety fuse; 4.Examine pool liquid conditions.
水泵不能自动停车 Water pump can' t automatically stop	1.某只传感器已损坏，产生误动作； 2.液体中有颗粒卡塞传感器浮球，迫使其误动作。 1.Certain sensor has been damaged and produces false actions; 2.Some granules in the liquid blocks sensor float ball and forces it to have false actions	1.更换已损坏的传感器； 2.冲洗传感器浮球，使其恢复灵活。 1.Change the damaged sensor; 2.Flush sensor float ball, make it recover flexibility
自动与手动无法转换 No transfering between automatic & manual	某只按钮已损坏 Certain button has been damaged	更换已损坏的按钮 Change the damaged button
手动状态水泵不能启动 Water pump can' t start in the manual case	1.手动按钮已损坏； 2.电机或保险丝已损坏。 1.Manual button has been damaged 2.Motor or safely fuse has been damaged	1.更换已损坏手动按钮； 2.修复电机或保险丝. 1.Change the damaged manual button; 2.Repair motor or safety fuse.

(三)电动空气控制阀部分 Electric air – controlled valve parts

故障 Breakdown	故障原因 Breakdown cause	排除方法 Removing method
1、连接管漏气，水泵不能形成真空，不吸液； 2、活塞不动作； 3、活塞动作，但水泵不吸液。 1.Joint pipes leak, pump can't form vaccum, no sucking liquid. 2.The piston does't work. 3.The piston works, but the water pump can' t take in liquid.	1、控制阀和水泵连接的丝扣不紧或使用时间较长，腐蚀松动，造成漏气； 2、电源不通； 3、电控阀线圈损坏或电器元件损坏； 4、密闭垫磨损； 5、密闭垫与活塞的行程太大。 1.Thread connected with control valve and pump is not tight or is used ling time, corrosive, loose, so leak. 2.The power is cut off. 3.The linecircle of the electrically controlled valve is destroyed or the parts of appliance equipment is broken. 4.The airtight pad is attrited. 5.The distance between the air tight pad and the piston is too far.	1、在连接丝扣上增加密封胶带，使之不漏气或更换已腐蚀的连接管； 2、检查电控阀电源线与电机电源联接是否良好； 3、更换电控阀线圈或电路板上某个部件； 4、更换密闭垫； 5、调整密闭垫与活塞的行程。 1.Add seal adhesive tape on connecting thread, make it no leaking or replace corrosive jion pipes; 2.Check whether the connection between the power line of the electrically controlled valve and the power of the electrical machinery is good. 3.Replace the coil of the electrically controlled valve or some part of the circuit board. 4.Replace the airtight pad. 5.Adjust the distance between the piston and the airtight pad.

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