

Self Suction Type Non-clogging Sewage Pump



GENERAL

A new style product successfully developed on the basis of the repeated research on the same know-how of both at home and abroad.

This pump integrates self-suction and non-clogging and uses axial-back flow outside-mixing type and, through the unique design of both pump casing and impeller gear, needs not to mount a foot valve and prime the leading water just like the common self-suction pure water pump and also can pump the liquid containing the solid of big grains and long fiber impurities.

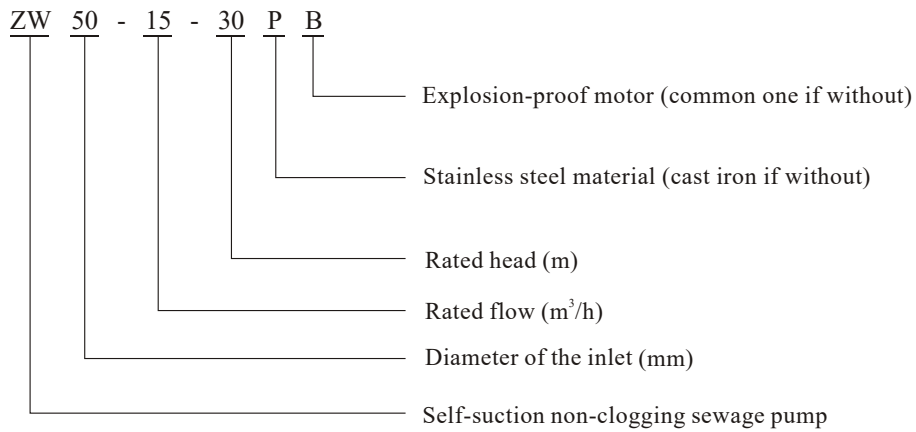
Compared with the same domestic products, this pump features a simple structure, good self-suction performance, strong sewage draining capacity, high efficiency, energy saving and easy use and repair, with every technical performance index of it ranking first nationally among the sewage pump series products and up to the world advanced level, and holds a wide applicable market and progressive future.

RANGE OF APPLICATION

Suitable for the sewage project in the municipal works, river aquaculture, light industry, paper-making, textile, food, chemical industry, power industry etc. and as the most ideal impurity pump to pump fiber, pulpy, mixed and suspended chemical media.

For this pump, the ambient temperature $\leq 50^{\circ}\text{C}$, the medium temperature $\leq 80^{\circ}\text{C}$, which can be up to 200°C in case of a special requirement; as of the PH value of the media, cast iron 6.9, stainless steel 2.13; the medium gravity is not over $1240\text{kg}/\text{m}^3$; the self-suction height is not over the set value 4.5-5.5m, the length of suck-in pipe $\leq 10\text{m}$; as of the passing capacity, the suspended grains' diameter is 60% of the pump aperture and the long fiber is 5 times that of the pump aperture.

MODEL MEANING

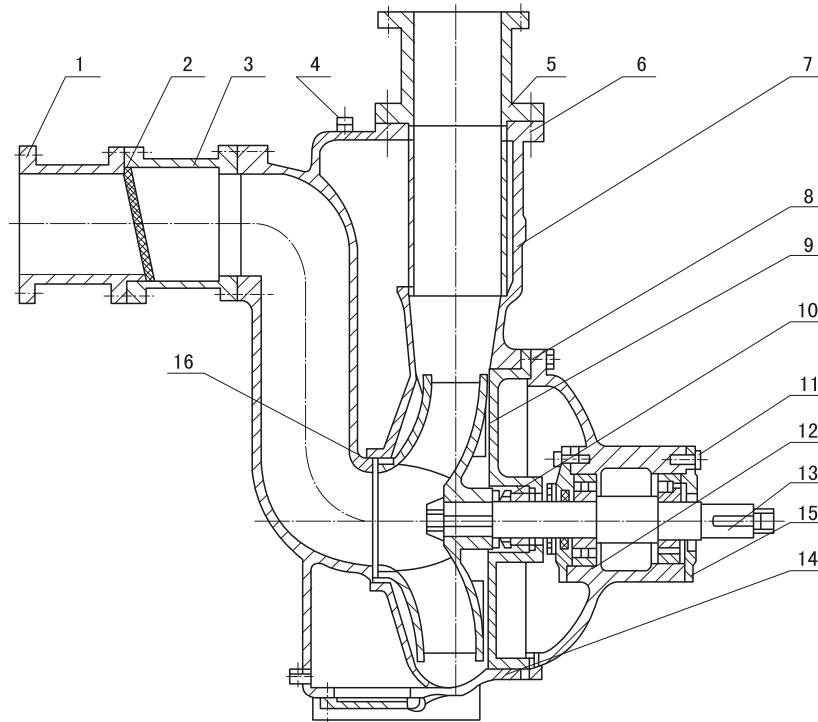


ABOUT THE STRUCTURE

This pump consists of pump casing, impeller, rear cover, mechanical seal, shaft, bearing seat, inlet valve, air-liquid separating pipe, water filling valve, inlet and drain-out nipples etc.

A liquid storing cavity is set inside of the pump casing and connected to the working cavity through the back-flow hole on the upper and the cycling hole on the lower to form the axial-back flow outside mixing type system of the pump. Liquid of a certain volume has been stored in the storing cavity after the pump stops working and, under the action of the impeller when the pump starts, is thrown out upwards with air and then flows back to the working cavity through the grids of the air-liquid separating pipe, the air is exhausted out of the pump to have a certain vacuum formed inside of the pump so as to get the self-suction action.

BRIEF DIAGRAM OF STRUCTURE



No	Name	No	Name	No	Name	No	Name
1	Inlet nipple	5	Outlet nipple	9	Impeller	13	Pump shaft
2	Inlet flange	6	Pump casing	10	Mechanical seal	14	Bearing cover
3	Inlet valve seat	7	Air-liquid separating pipe	11	Water baffle	15	Bottom cover-plate
4	Water filling bolt	8	Rear cover	12	Bearing seat	16	Oral ring

MODEL SPECTRUM

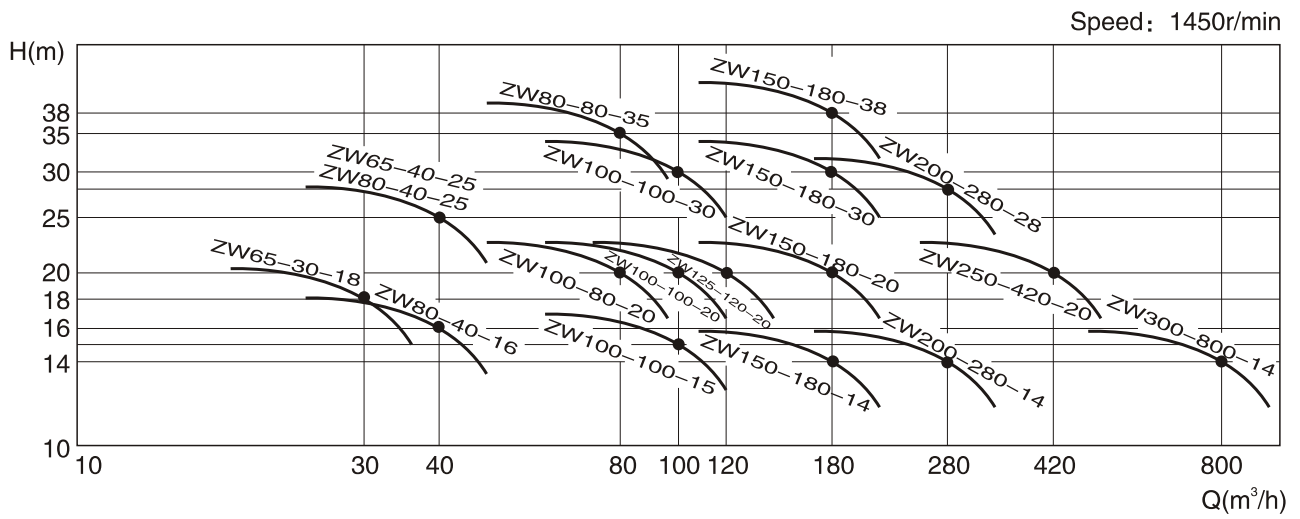
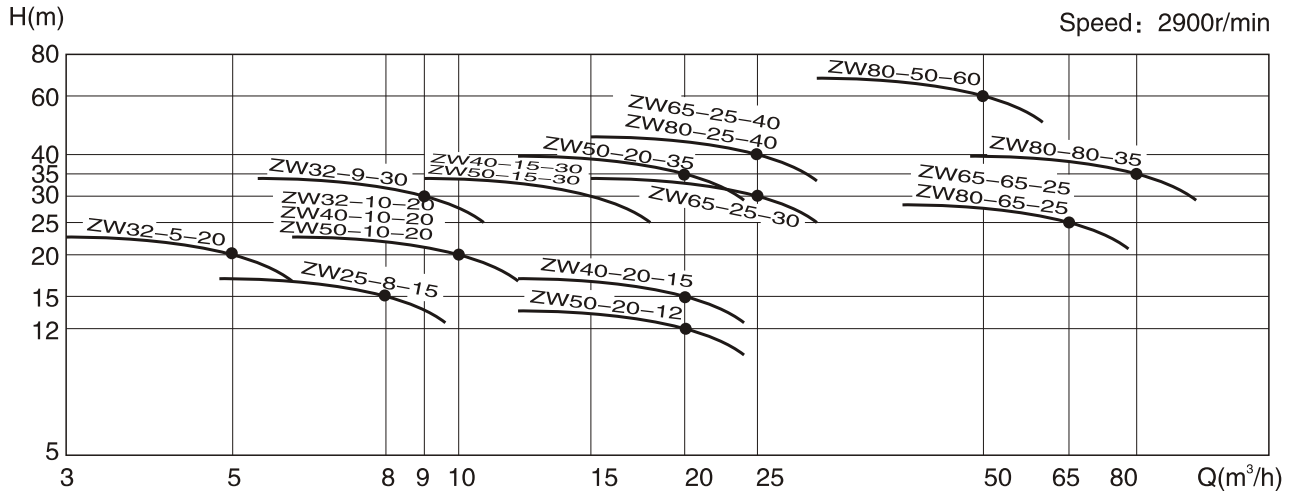
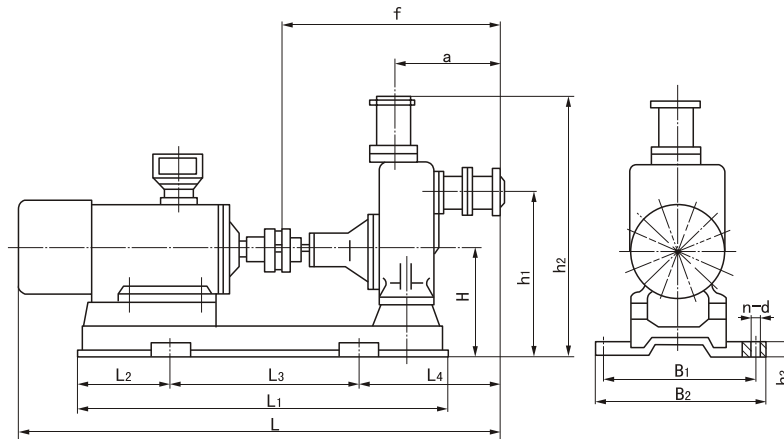


TABLE OF PERFORMANCE PARAMETERS

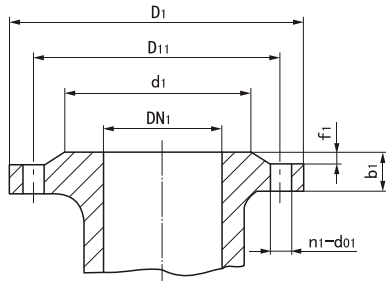
Model	Flow (m ³ /h)	Head (m)	Speed (r/min)	Power (kW)	Eff. (%)	NPSHr (m)	Self-suction height (m)	Self-suction time (min/5m)	Weight (kg)
ZW25-8-15	8	15	2900	1.5	45	2.0	5.5	3	100
ZW32-5-20	5	20	2900	2.2	45	2.5	5.5	3	100
ZW32-10-20	10	20	2900	2.2	45	2.5	5.5	3	100
ZW32-9-30	9	30	2900	3	48	2.5	5.5	3	120
ZW40-10-20	10	20	2900	2.2	45	2.5	5.5	3	100
ZW40-20-15	20	15	2900	2.2	45	2.5	5.5	3	100
ZW40-15-30	15	30	2900	3	48	2.5	5.5	3	120
ZW50-10-20	10	20	2900	2.2	45	2.5	5.5	3	100
ZW50-20-12	20	12	2900	2.2	45	2.5	5.5	3	100
ZW50-15-30	15	30	2900	3	48	2.5	5.5	3	120
ZW50-20-35	20	35	2900	5.5	48	2.5	5.5	3	150
ZW65-30-18	30	18	1450	4	45	2.5	5.5	3	200
ZW65-25-30	25	30	2900	5.5	50	3.0	5.5	3	200
ZW65-25-40	25	40	2900	7.5	50	3.0	5.5	2	200
ZW65-40-25	40	25	2900	7.5	50	3.0	5.5	2	200
ZW65-65-25	65	25	2900	7.5	52	3.0	5.5	2	240
ZW80-40-16	40	16	1450	4	50	3.0	5.0	3	240
ZW80-40-25	40	25	2900	7.5	50	3.0	5.5	2	200
ZW80-25-40	25	40	2900	7.5	50	3.0	5.5	2	200
ZW80-65-25	65	25	2900	7.5	52	3.0	5.5	2	240
ZW80-80-35	80	35	2900	15	45	3.0	5.5	3	285
ZW80-80-35	80	35	1450	15	50	3.0	5.5	2	450
ZW80-50-60	50	60	2900	22	55	3.0	5.0	3	340
ZW100-100-15	100	15	1450	7.5	50	4.0	5.5	3	300
ZW100-80-20	80	20	1450	7.5	53	4.0	5.5	3	300
ZW100-100-20	100	20	1450	11	53	4.0	5.5	3	340
ZW100-100-30	100	30	2900	22	53	4.0	5.5	2	510
ZW125-120-20	120	20	1450	15	55	4.5	5.5	2	500
ZW150-180-14	180	14	1450	15	60	5.0	5.5	3.5	500
ZW150-180-20	180	20	1450	22	60	5.0	5.0	3	570
ZW150-180-30	180	30	1450	37	65	5.0	5.0	3	680
ZW150-180-38	180	38	1450	55	45	5.0	5.0	3.5	800
ZW200-280-14	280	14	1450	22	65	5.0	5.0	3	700
ZW200-280-28	280	28	1450	55	55	4.8	5.2	3	940
ZW250-420-20	420	20	1450	55	61	6.0	4.5	2.5	1150
ZW300-800-14	800	14	1450	55	65	6.0	4.5	2.5	1400

DIAGRAM AND TABLE OF OUT-FORM AND INSTALLATION DIMENSIONS

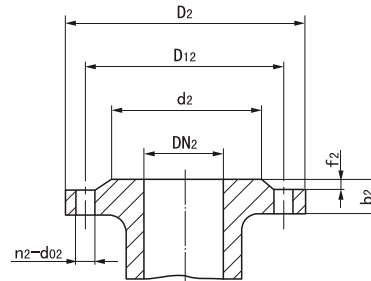


Model	L	L1	L2	L3	L4	a	f	B1	B2	H	h1	h2	h3	n × d
ZW25-8-15	850	680	115	450	240	255	510	310	370	228	410	625	24	4 × φ 18
ZW32-5-20	850	680	115	450	240	255	510	310	370	228	410	625	24	4 × φ 18
ZW32-10-20	850	680	115	450	240	255	510	310	370	228	410	625	24	4 × φ 18
ZW32-9-30	890	710	130	450	240	260	510	310	370	238	410	630	24	4 × φ 18
ZW40-10-20	850	680	115	450	240	255	510	310	370	228	410	625	24	4 × φ 18
ZW40-20-15	850	680	115	450	240	255	510	310	370	228	410	625	24	4 × φ 18
ZW40-15-30	890	710	130	450	240	260	510	310	370	238	410	630	24	4 × φ 18
ZW50-10-20	850	680	115	450	240	255	510	310	370	228	410	625	24	4 × φ 18
ZW50-20-12	850	680	115	450	240	255	510	310	370	228	410	625	24	4 × φ 18
ZW50-15-30	890	710	130	450	240	260	510	310	370	238	410	630	24	4 × φ 18
ZW50-20-35	980	750	125	450	240	250	480	380	450	238	410	630	24	4 × φ 18
ZW65-30-18	1040	760	135	500	340	350	650	380	450	265	485	760	25	4 × φ 18
ZW65-25-30	1230	850	135	580	340	350	700	370	520	270	480	720	25	4 × φ 18
ZW65-25-40	1230	850	135	580	340	350	700	370	520	270	480	720	25	4 × φ 18
ZW65-40-25	1165	850	135	580	340	350	650	370	430	265	485	760	25	4 × φ 18
ZW65-65-25	1300	940	150	640	350	350	700	430	485	270	480	720	25	4 × φ 18
ZW80-40-16	1040	760	135	500	340	350	650	380	450	265	485	760	25	4 × φ 18
ZW80-40-25	1165	850	135	580	340	350	650	370	430	265	485	760	25	4 × φ 18
ZW80-25-40	1230	850	135	580	340	350	700	370	520	270	480	720	25	4 × φ 18
ZW80-65-25	1300	940	150	640	350	350	700	430	485	270	480	720	25	4 × φ 18
ZW80-80-35	1300	1020	190	640	360	350	700	450	520	270	480	720	25	4 × φ 23
ZW80-80-35	1365	1180	190	640	330	370	760	480	540	350	600	890	25	4 × φ 23
ZW80-50-60	1360	1020	190	640	400	350	650	450	590	280	495	770	25	4 × φ 23
ZW100-100-15	1230	920	140	630	375	400	730	450	510	330	630	920	28	4 × φ 23
ZW100-80-20	1230	920	140	630	375	400	730	450	510	330	630	920	28	4 × φ 23
ZW100-100-20	1320	1020	200	625	420	400	730	450	510	330	630	920	28	4 × φ 23
ZW100-100-30	1650	1300	320	730	480	460	900	480	550	330	570	870	30	4 × φ 23
ZW125-120-20	1600	1170	175	820	450	510	880	480	540	330	665	990	30	4 × φ 23
ZW150-180-14	1600	1170	175	820	450	510	880	480	540	330	650	990	30	4 × φ 23
ZW150-180-20	1580	1300	200	730	500	490	870	480	550	350	700	1030	30	4 × φ 23
ZW150-180-30	1690	1370	235	800	500	490	870	520	600	350	700	1030	30	4 × φ 23
ZW150-180-38	1920	1570	245	1080	400	490	870	580	660	350	700	1020	30	4 × φ 23
ZW200-280-14	1920	1470	270	970	520	650	1090	520	565	350	700	1090	30	4 × φ 23
ZW200-280-28	2020	1570	245	1080	500	650	1090	580	660	350	700	1090	30	4 × φ 23
ZW250-420-20	2180	1600	325	950	720	800	1330	610	670	430	800	1200	30	4 × φ 23
ZW300-800-14	2580	1880	300	1280	800	1030	1500	610	655	530	900	1350	30	4 × φ 23

DIAGRAM AND TABLE OF FLANGE DIMENSION



the flange at suck-in port



The flange at drain-out port

Model	Dimension of the flange at suck-in port							Dimension of the flange at drain-out port						
	DN ₁	D ₁	D ₁₁	d ₁	b ₁	f ₁	n ₁ -d ₀₁	DN ₂	D ₂	d ₁₂	d ₂	b ₂	f ₂	n ₂ -d ₀₂
ZW25-8-15	25	100	75	60	14	2	4 × φ 14	25	100	75	60	14	2	4 × φ 14
ZW32-5-20	32	120	90	70	14	2	4 × φ 14	32	120	90	70	14	2	4 × φ 14
ZW32-10-20	32	120	90	70	14	2	4 × φ 14	32	120	90	70	14	2	4 × φ 14
ZW32-9-30	32	120	90	70	14	2	4 × φ 14	32	120	90	70	14	2	4 × φ 14
ZW40-10-20	40	130	100	80	14	2	4 × φ 14	32	120	90	70	14	2	4 × φ 14
ZW40-20-15	40	130	100	80	14	2	4 × φ 14	32	120	90	70	14	2	4 × φ 14
ZW40-15-30	40	130	100	80	14	2	4 × φ 14	32	120	90	70	14	2	4 × φ 14
ZW50-10-20	50	140	110	90	14	2	4 × φ 14	40	130	100	80	14	2	4 × φ 14
ZW50-20-12	50	140	110	90	14	2	4 × φ 14	40	130	100	80	14	2	4 × φ 14
ZW50-15-30	50	140	110	90	14	2	4 × φ 14	40	130	100	80	14	2	4 × φ 14
ZW50-20-35	50	140	110	90	14	2	4 × φ 14	40	130	100	80	14	2	4 × φ 14
ZW65-30-18	65	160	130	110	14	2	4 × φ 14	65	160	130	110	14	2	4 × φ 14
ZW65-25-30	65	160	130	110	14	2	4 × φ 14	65	160	130	110	14	2	4 × φ 14
ZW65-25-40	65	160	130	110	14	2	4 × φ 14	65	160	130	110	14	2	4 × φ 14
ZW65-40-25	65	160	130	110	14	2	4 × φ 14	65	160	130	110	14	2	4 × φ 14
ZW65-65-25	65	160	130	110	14	2	4 × φ 14	65	160	130	110	14	2	4 × φ 14
ZW80-40-16	80	190	150	125	15	2	4 × φ 18	65	160	130	110	14	2	4 × φ 14
ZW80-40-25	80	190	150	125	15	2	4 × φ 18	65	160	130	110	14	2	4 × φ 14
ZW80-25-40	80	190	150	125	15	2	4 × φ 18	65	160	130	110	14	2	4 × φ 14
ZW80-65-25	80	190	150	125	15	2	4 × φ 18	65	160	130	110	14	2	4 × φ 14
ZW80-80-35	80	190	150	125	15	2	4 × φ 18	65	160	130	110	14	2	4 × φ 14
ZW80-80-35	80	190	150	125	15	2	4 × φ 18	65	160	130	110	14	2	4 × φ 14
ZW80-50-60	80	190	150	125	15	2	4 × φ 18	65	160	130	110	14	2	4 × φ 14
ZW100-100-15	100	210	170	145	15	3	4 × φ 18	80	190	150	125	15	2	4 × φ 18
ZW100-80-20	100	210	170	145	15	3	4 × φ 18	80	190	150	125	15	2	4 × φ 18
ZW100-100-20	100	210	170	145	15	3	4 × φ 18	80	190	150	125	15	2	4 × φ 18
ZW100-100-30	100	210	170	145	15	3	4 × φ 18	80	190	150	125	15	2	4 × φ 18
ZW125-120-20	125	240	200	175	20	3	8 × φ 18	125	240	200	175	20	3	8 × φ 18
ZW150-180-14	150	265	225	200	20	3	8 × φ 18	125	240	200	175	20	3	8 × φ 18
ZW150-180-20	150	265	225	200	20	3	8 × φ 18	125	240	200	175	20	3	8 × φ 18
ZW150-180-30	150	265	225	200	20	3	8 × φ 18	125	240	200	175	20	3	8 × φ 18
ZW150-180-38	150	265	225	200	20	3	8 × φ 18	125	240	200	175	20	3	8 × φ 18
ZW200-280-14	200	320	280	255	22	3	8 × φ 18	150	265	225	200	20	3	8 × φ 18
ZW200-280-28	200	320	280	255	22	3	8 × φ 18	150	265	225	200	20	3	8 × φ 18
ZW250-420-20	250	375	335	310	24	3	12 × φ 18	200	320	280	255	22	3	8 × φ 18
ZW300-800-14	300	435	395	362	24	4	12 × φ 23	250	375	335	310	24	3	12 × φ 18