

## FZB Fluoroplastic Self-priming Pump



FZB is SBMC's independent R&D product, especially for low sump application, pump installed above the sump and tank. Easy for operating and maintain servicing.

Patent name:New type fluoroplastic self-priming pump  
Patent no :ZL200820038727.9

### Medium

- Acids & lyes
- Waste water
- Chlorine water
- Electrolyte

### Application

- Chemical industry
- Pesticide
- Acid and alkali making
- Papermaking
- Acid pickle process
- ElectronicsIndustry

### Range of application

1. Pressure Limitation:<1.0MPa
2. Temperature:  
Temperature range:-20°C ~ 80°C  
Ambient temperature: 0~ 40°C  
Ambient humidity: 35~85%RH
3. In general, slurries should not be handled; liquid maximum practical and crystal content not more than 10%, pump not allowed to transfer a mass of bubbles .
4. The viscosity of medium influence the performance of the pump: when the viscosity changed, the pump performance change also.

### Design feature

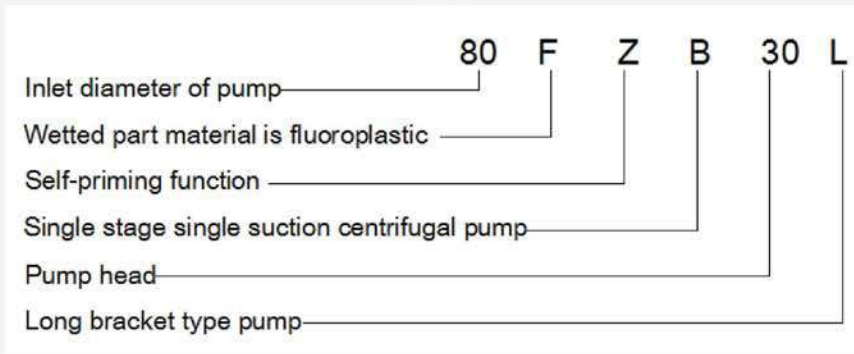
**Patent product**, base on IHF centrifugal pump structure, installed the double volute self-priming pump casing on IHF pump, simple structure and for widely usage.

**Corrosion and pressure resistance**, wet parts are made of corrosion resistant fluoroplastic, with these advantages, FZB pumps available to high corrosive applications. Pump base plate is made of metal; make the pump available to high pressure resistance applications.

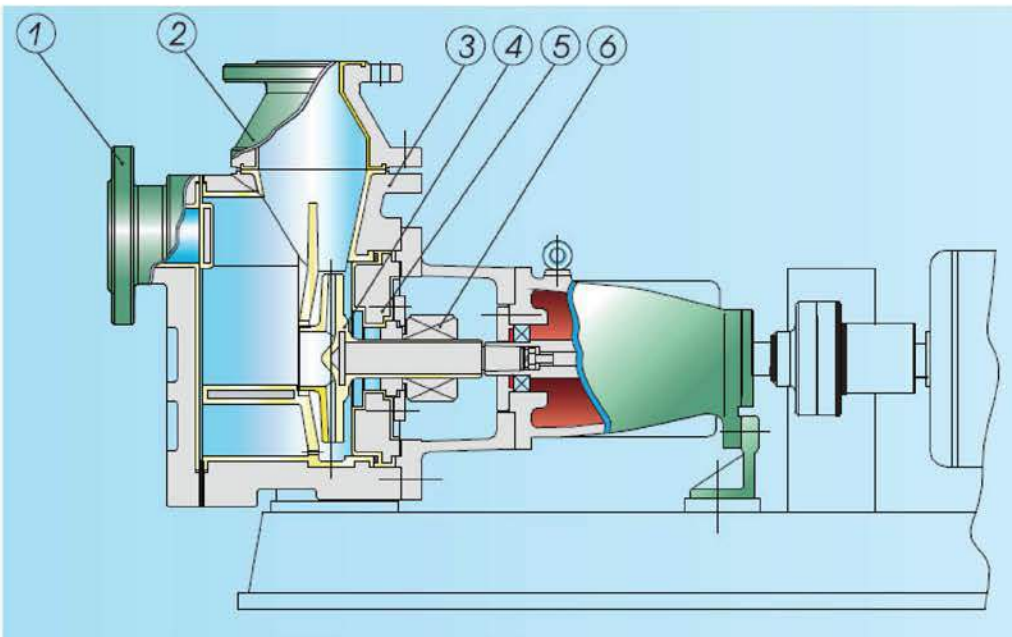
### Easy for operating

Developed for low sump application, pump installed above the sump or tank, which easy for operating, maintenance and repair.

## Pump Identification



## Sectional drawing



Item	Designation	Material
1	Pump housing	Cast iron HT200 with FEP/ PFA
2	Impeller	FEP fused with PTFE / PFA
3	Seal ring	Fluorubber
4	Pump cover	Cast iron HT200 with FEP/ PFA
5	Mechanical seal cover	SUS321 stainless steel
6	Mechanical seal	Silicon carbide ,hard alloy
7	Bearing box	Cast iron HT200 with F46
8	Pump shaft	45# Steel

## Model and parameter

Table 1: Close coupled type

Item	Model	Flow (m <sup>3</sup> /h)	Head (m)	Efficiency (%)	NPSHa (m)	Inlet x outlet (mm)	Self-prim- ing height (m)	Self-prim- ing time (seconds)	Speed z (RPM)	Power (KW)	Pump and motor weight (kg)
1	40FZB-20	5	22	35	3.00	40x50	1	180	2900	3	47
		*8	20	42							
		12	17	40							
2	50FZB-20	8	22	35	3.00	50x50	1	180	2900	3	47
		*12	20	42							
		15	17	40							

Table 2: Close coupled type

Item	Model	Flow (m <sup>3</sup> /h)	Head (m)	Efficiency (%)	NPSHa (m)	Inlet x outlet (mm)	Self-prim- ing height (m)	Self-prim- ing time (seconds)	Speed z (RPM)	Power (KW)	Pump and motor weight (kg)
1	25FZB-20L	1.5	19	10	3	25x25	1	180	2900	2.2	65
		*3.6	18	20							
		6	16	30							
2	40FZB-30L	5	32	24	3.5	40x50	3	150	2900	4	160
		*8	30	48							
		12	28	45							
3	50FZB-30L	8	32	24	3.5	50x50	3	150	2900	4	160
		*12	30	48							
		15	28	45							
4	50FZB-45L	8	47	24	3.5	50x32	3	150	2900	7.5	160
		*12	45	35							
		15	43	32							
5	50FZB-70L	8	72	20	4	50x32	3	150	2900	15	320
		*12	70	26							
		25	65	39							
6	65FZB-18L	15	20	40	3.5	65x50	3	180	2900	4	178
		*25	18	48							
		35	15	48							
7	60FZB-30L	15	32	40	4	65x50	3	200	2900	7.5	210
		*25	30	55							
		35	27	48							
8	65FZB-45L	15	47	30	4	65x40	3	180	2900	11	300
		*25	45	42							
		35	38	44							
9	65FZB-70L	15	72	30	4	65x40	3	180	2900	30	530
		*25	70	41							
		35	65	42							
10	80FZB-18L	30	19	41	3.5	80x65	3	180	2900	5.5	210
		*40	18	47							
		50	16	49							
11	80FZB-30L	35	32	54	4.5	80x65	3	150	2900	11	284
		*50	30	58							
		60	25	48							

Item	Model	Flow (m <sup>3</sup> /h)	Head (m)	Efficiency (%)	NPSHa (m)	Inlet x outlet (mm)	Self-priming height (m)	Self-priming time (seconds)	Speed z (RPM)	Power (KW)	Pump and motor weight (kg)
12	80FZB-45L	35	47	45	4.5	80x65	3	180	2900	15	330
		*50	45	53							
		60	42	46							
13	80FZB-70L	35	72	45	5	80x50	3	200	2900	30	550
		*50	70	50							
		60	65	43							
14	100FZB-30L	65	32	54	6	100x80	3	150	2900	18.5	390
		*100	30	60							
		110	26	54							
15	100FZB-45L	65	46	48	6	100x80	3	150	2900	30	500
		*100	45	55							
		110	40	48							

## Remark

Item marked with "\*" for standard parameter

Please choose similar or same parameter pump, if the parameter is not in the range of this table, we could improve it according to on site application.

If flow rate is too small, the outlets add backflow connection.

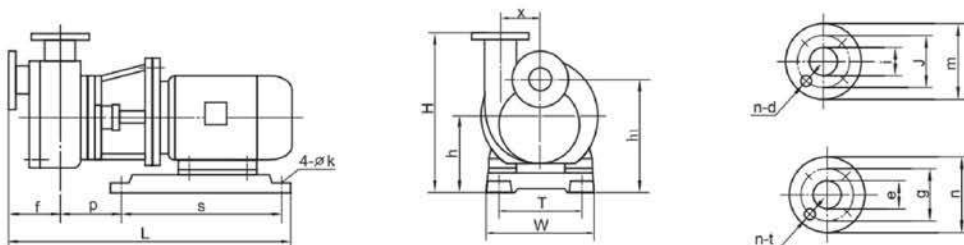
Motor phase: 2 phase

If liquid specific gravity is more than 1.3g/cm<sup>3</sup>, the motor power should be added.

If liquid with HF acid or some other type special liquid, spare parts material will be changed according to liquid.

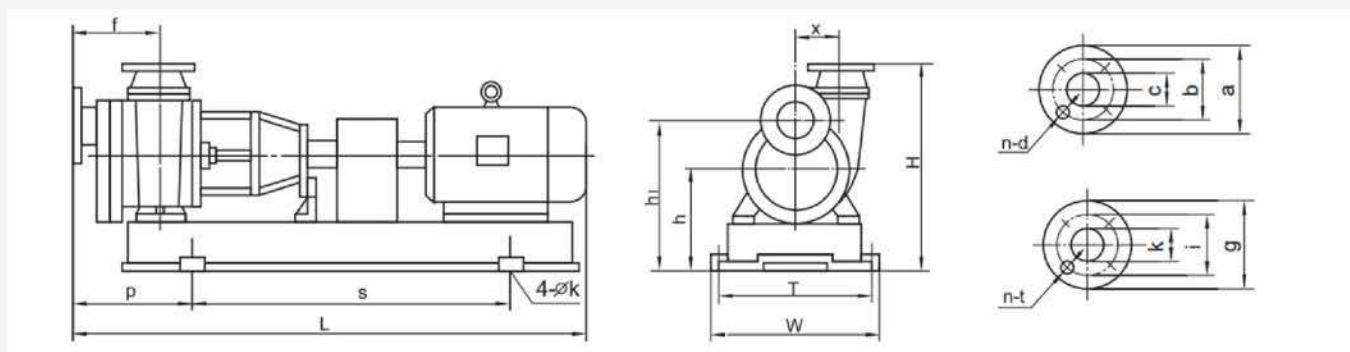
Self priming height= 3m@water liquid/liquid density

## Installation drawing



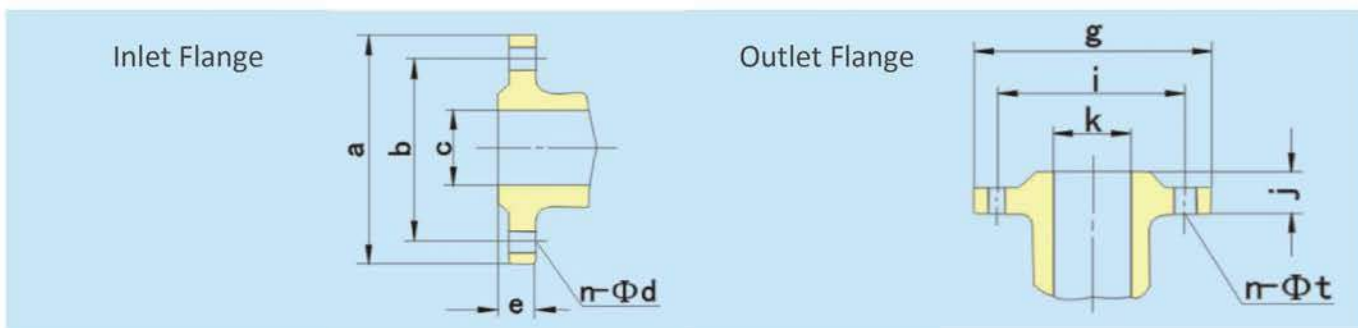
Serial	Model	Exterior and installation dimension											Inlet flange dimension				Outlet flange dimension			
		L	S	P	f	W	T	H	h	h1	x	k	i	j	m	n-Ød	e	g	n	n-Øt
Short bracket	40FZB-20	590	310	94	110	220	170	305	140	223	65	12	40	100	130	4-Ø13	50	100	130	4-Ø13
	50FZB-20	590	310	94	110	220	170	305	140	223	65	12	40	100	130	4-Ø13	50	100	130	4-Ø13

Table 1: Coupling type installation drawing



S/N	Model	Exterior and installation dimension											Inlet flange dimension	
		L	B	S	A	P	f	W	T	H	h	h1	x	4-Øk
1	25FZB-20L	750	590	440	157	75	110	280	110	280	280	240	-60	4-Ø16
2	40FZB-30L	1150	895	590	140	155	205	390	205	390	390	342	90	4-Ø25
3	50FZB-30L	1150	895	590	140	155	205	390	205	390	390	342	90	4-Ø25
4	50FZB-45L	1190	990	650	150	170	200	450	200	450	450	410	112	4-Ø25
5	50FZB-70L	1350	1130	720	170	205	227	485	227	485	485	445	124	4-Ø25
6	65FZB-18L	1145	900	590	180	150	235	390	235	390	390	372	90	4-Ø25
7	65FZB-30L	1230	990	650	190	170	250	450	250	450	450	342	98	4-Ø25
8	65FZB-45L	1400	1130	720	165	205	223	485	223	485	485	425	114	4-Ø25
9	65FZB-70L	1680	1430	940	130	245	220	610	220	610	610	510	147	4-Ø25
10	80FZB-18L	1240	990	650	200	170	255	450	255	450	450	372	98	4-Ø25
11	80FZB-30L	1400	1130	720	165	205	210	485	210	485	485	370	110	4-Ø25
12	80FZB-45L	1370	1130	720	205	205	260	485	260	485	485	425	120	4-Ø25
13	80FZB-70L	1680	1380	940	165	240	268	610	268	610	610	535	140	4-Ø25
14	100FZB-30L	1476	1130	720	240	205	290	485	290	485	485	460	128	4-Ø25
15	100FZB-45L	1758	1380	940	205	230	285	610	285	610	610	480	130	4-Ø25

Table 2: Flange dimension



S/N	Model	Inlet flange dimension					Outlet flange dimension						
		c	a	b	e	n-Ød	K	g	i	j	n-f t		
1	25FZB-20L	25	120	85	18	4-Ø11	25	120	85	18	4-Ø11		
2	40FZB-30L	40					50					165	125
3	50FZB-30L	50					165					125	4-Ø18
4	50FZB-45L		50	165	125								
5	50FZB-70L	65	185	145	20	4-Ø18	50	165	125	20	4-Ø18		
6	65FZB-18L						50	165	125				
7	65FZB-30L						50	165	125				
8	65FZB-45L	80	200	160	20	8-Ø18	40	150	110	20	4-Ø18		
9	65FZB-70L						40	150	110				
10	80FZB-18L	80	200	160	20	8-Ø18	65	185	145	20	4-Ø18		
11	80FZB-30L						65	185	145				
12	80FZB-45L						65	185	145				
13	80FZB-70L	100	180	220	22	8-Ø18	50	165	125	20	8-Ø18		
14	100FZB-30L						50	165	125				
15	100FZB-45L	50	165	125									

## Performance cuve

### Performance curve diagram

