

PB/PD(S) Series

Horizontal Self-Priming Acid/Alkaline-Resist Pump

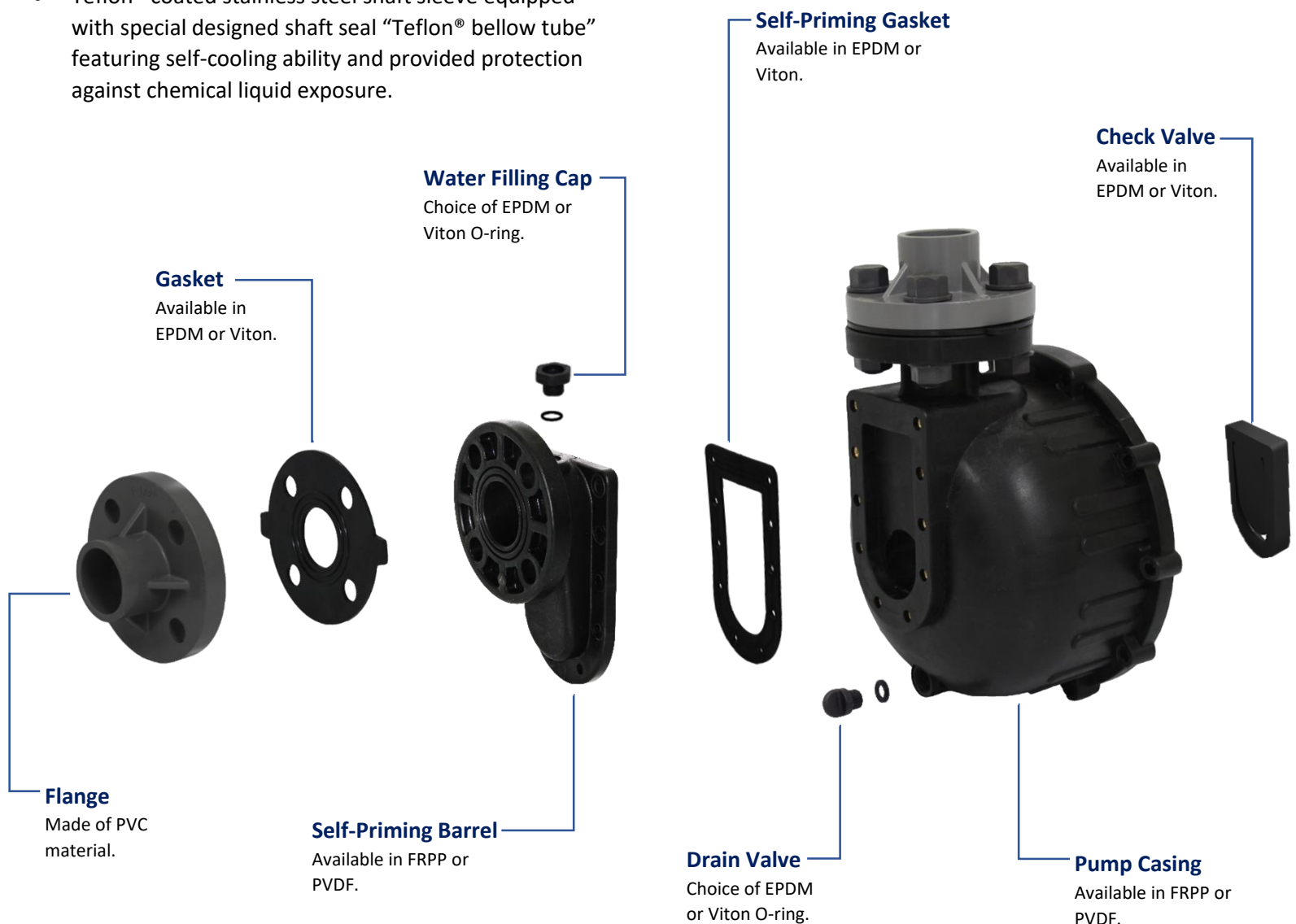
Vertical Acid/Alkaline-Resist Pump



Horizontal Self-Priming Acid/Alkaline-Resist Pump

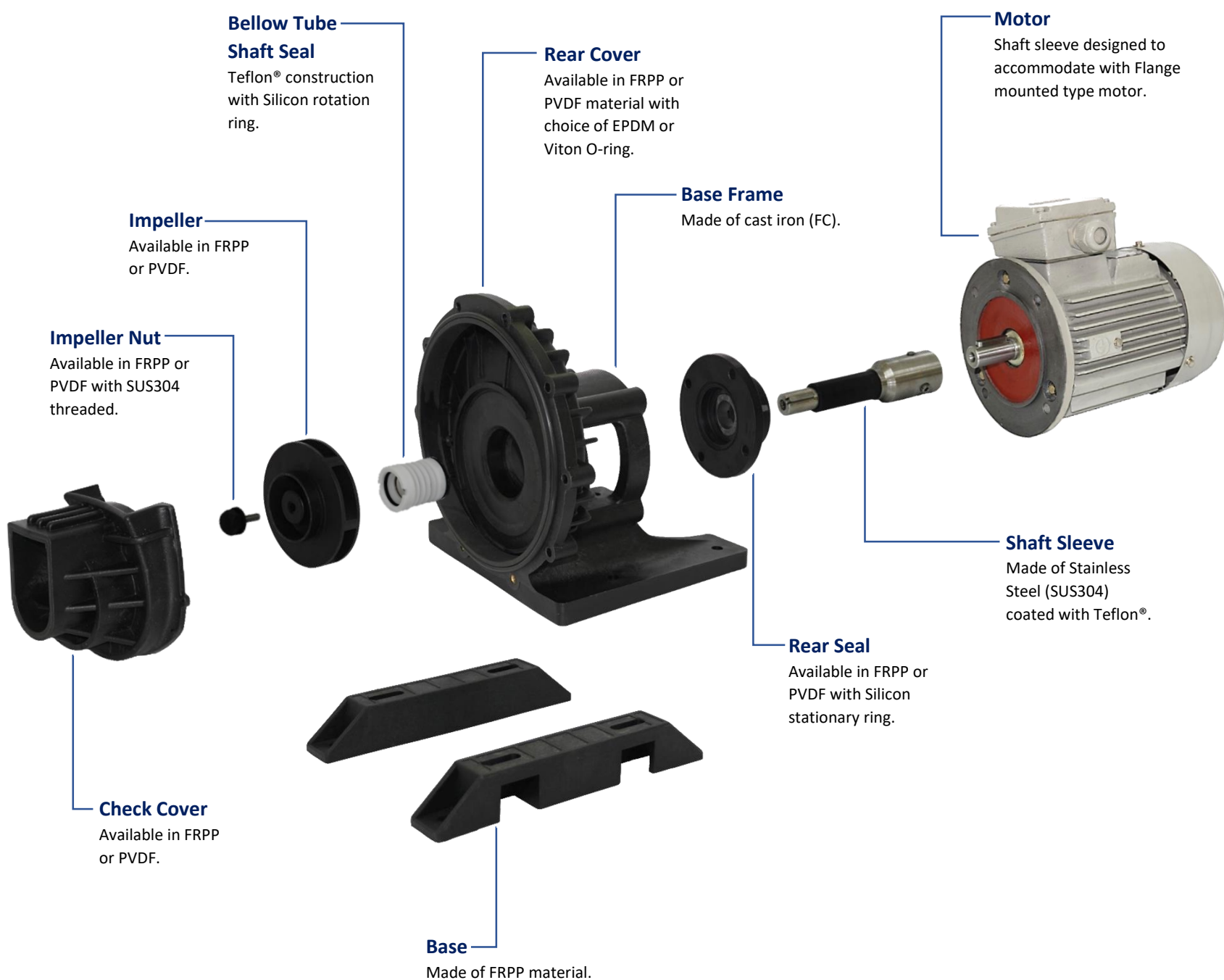
Features

- Self-Priming designed with built-in swing check valve for prevents liquid back-flow into the pump.
- Pump casing is available in FRPP & PVDF material for strong resistance to corrosion, acid and alkaline.
- Maximum working temperature:
FRPP: 65 °C PVDF: 90 °C
- Teflon® coated stainless steel shaft sleeve equipped with special designed shaft seal “Teflon® bellow tube” featuring self-cooling ability and provided protection against chemical liquid exposure.

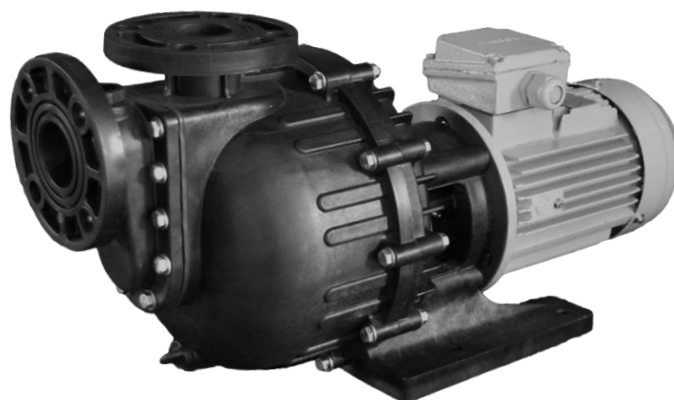
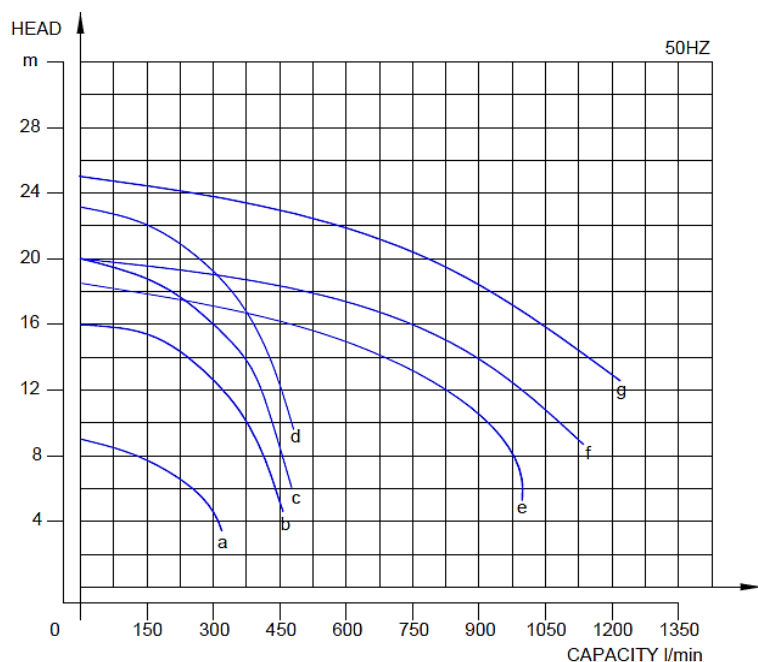


Applications

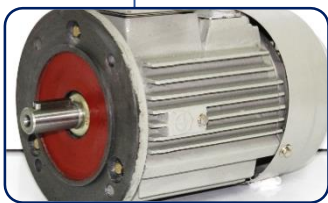
- Water treatment.
- Chemical or water recirculation.
- Plating solutions.



Performance Curve



Code Description

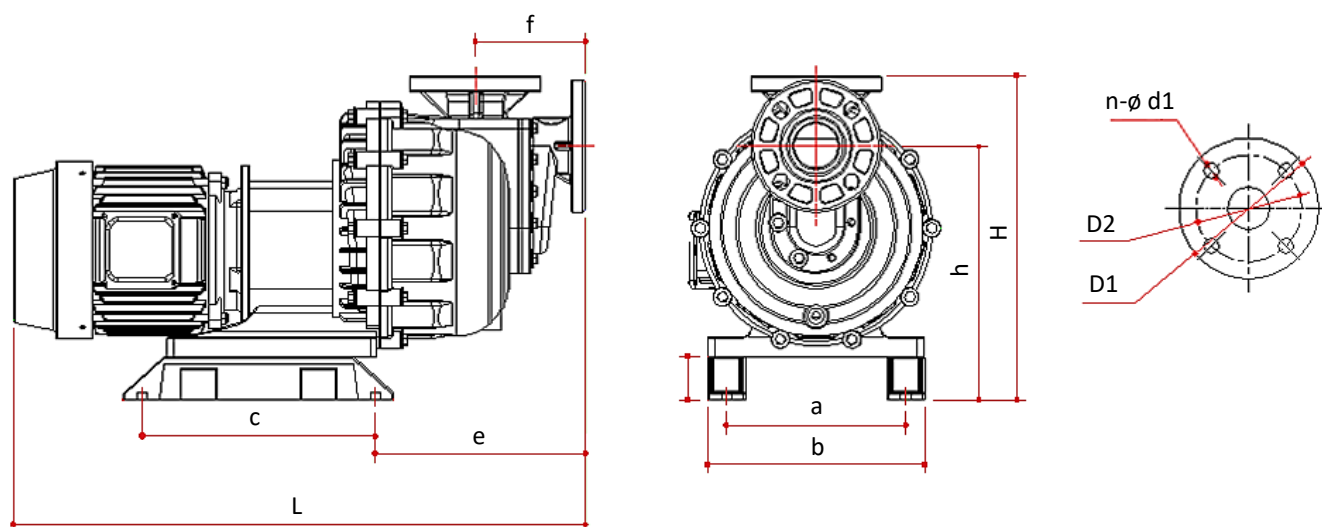
PB	40	02	2	E	A	L	C	C	S
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
 1. Pump Casing - PB-FRPP - PBP-PVDF	 2. Suct.-Dis. Dia. - 40-1.5" - 50-2" - 75-3"	 3. Power - 01-3 Ø 1 HP - 02-3 Ø 2 HP - 03-3 Ø 3 HP - 05-3 Ø 5 HP - 07-3 Ø 7.5 HP - 10-3 Ø 10 HP	 4. Pole - 2-2P	 5. Rubber Material - E-EPDM - V-VITON	 6. Check Valve - A-With Check Valve	 7. Head - L-Low Head - H-High Head	 8. Stationary Ring - C-Silicon(R)* - S-Silicon(S)*	 9. Rotation Ring - C-Carbon - S-Silicon(S)*	 10. Spring - S-SUS316

Specification Table

Model	Curve No.	Max. Head (m)	Max. Capacity (l/min)	Suct./Dis. Diameter (inch)	Power			Weight (kg)
					Phase	Pole	HP	
Frequency: 50 Hz								
PB-40012	a	9	320	1.5" / 1.5"	3	2	1	26
PB-40022	b	16	456	1.5" / 1.5"	3	2	2	33
PB-50032	c	20	475	2" / 2"	3	2	3	42
PB-50052	d	23	481	2" / 2"	3	2	5	68
PB-75052	e	18.5	995	3" / 3"	3	2	5	70
PB-75072	f	20	1142	3" / 3"	3	2	7.5	120
PB-75102	g	25	1225	3" / 3"	3	2	10	140

*Silicon(R) = Recrystallized Silicon Carbide *Silicon(S) = Pressureless Sintering Silicon Carbide

Dimension

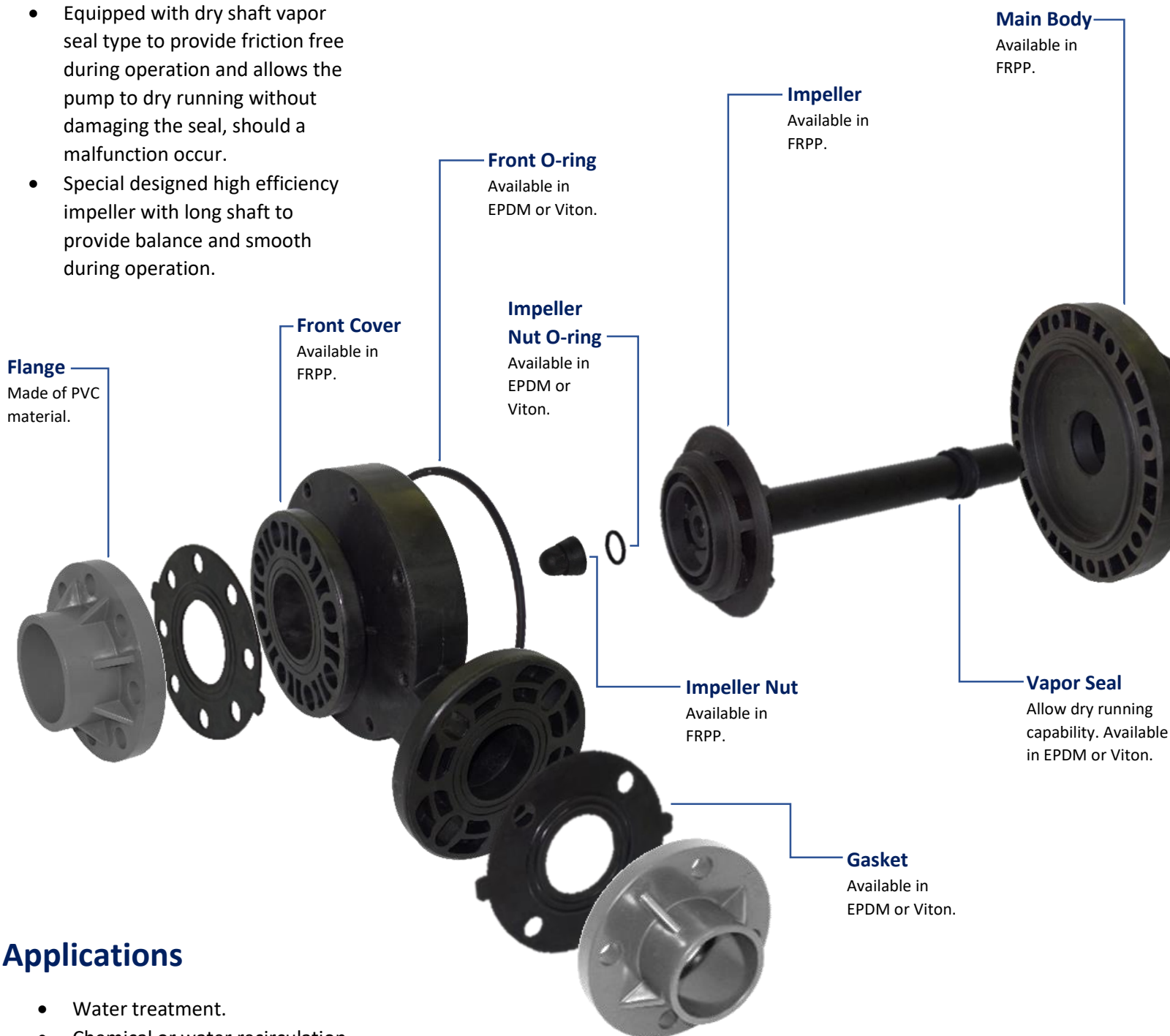


Model	L	H	a	b	c	e	f	h	i	D1	D2	n-ø d1
PB-40012	656	370	208	253	275	269	130	298	50	140	105	4-ø 19
PB-40022	665	380	208	253	275	269	130	298	50	140	105	4-ø 19
PB-50032	670	380	208	253	275	269	130	298	50	155	120	4-ø 19
PB-50052	725	380	208	253	275	269	130	298	50	155	120	4-ø 19
PB-75052	793	404	216	261	275	300	112	216	50	188	150	8-ø 20
PB-75072	859	414	340	370	181	389	112	226	25	188	150	8-ø 20
PB-75102	859	414	340	370	181	389	112	226	25	188	150	8-ø 20

Vertical Acid/Alkaline-Resist Pump

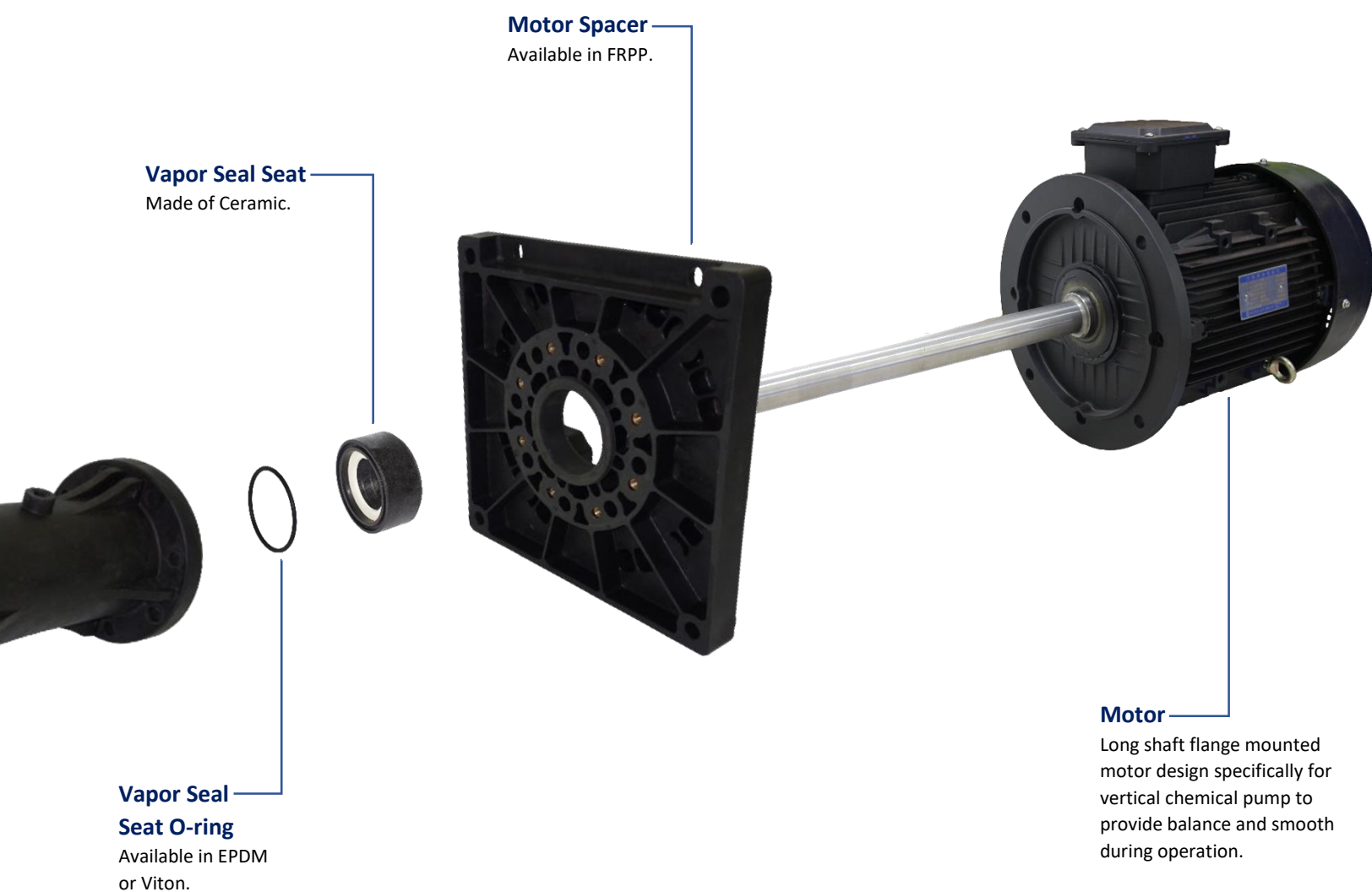
Features

- Vertical designed mold injection pump casing, available in FRPP material for acid, alkaline and corrosion resistant.
- Maximum working temperature: FRPP: 65 °C
- Equipped with dry shaft vapor seal type to provide friction free during operation and allows the pump to dry running without damaging the seal, should a malfunction occur.
- Special designed high efficiency impeller with long shaft to provide balance and smooth during operation.

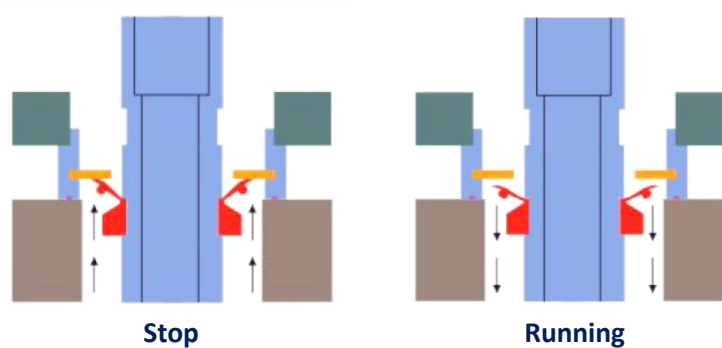


Applications

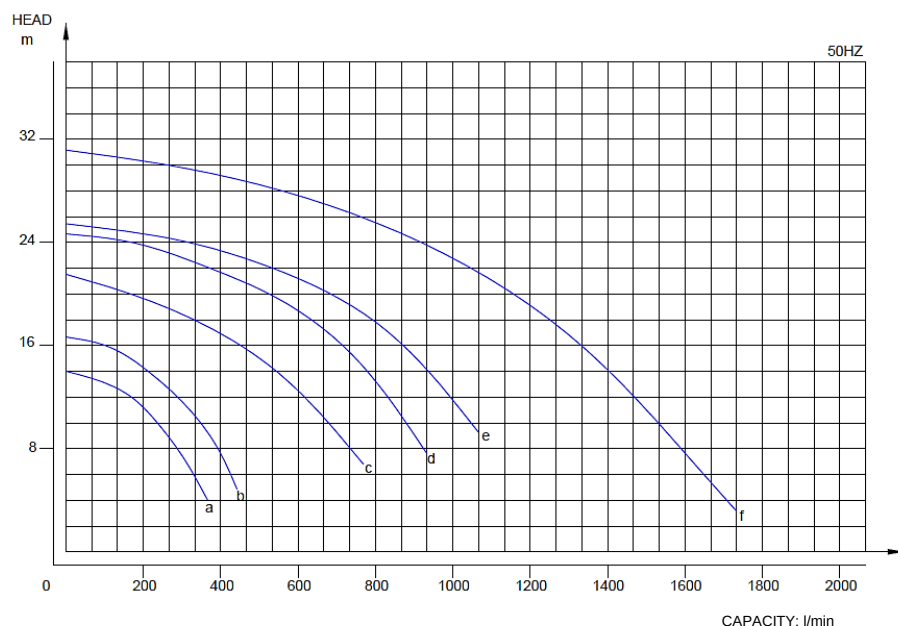
- Water treatment.
- Chemical or water recirculation.
- Plating solutions.
- Heat exchanger



Vapor Seal Features

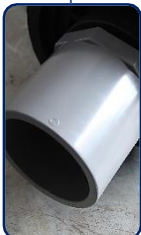


Performance Curve



Code Description

PDS Series

PDS	50	02	2	E
1	2	3	4	5
				
1. Pump Casing - PDS-FRPP	2. Suct Dia. - 50-2"	3. Power - 02-3 Ø 2 HP - 03-3 Ø 3 HP	4. Pole - 2-2P	5. Rubber Material - E-EPDM - V-VITON

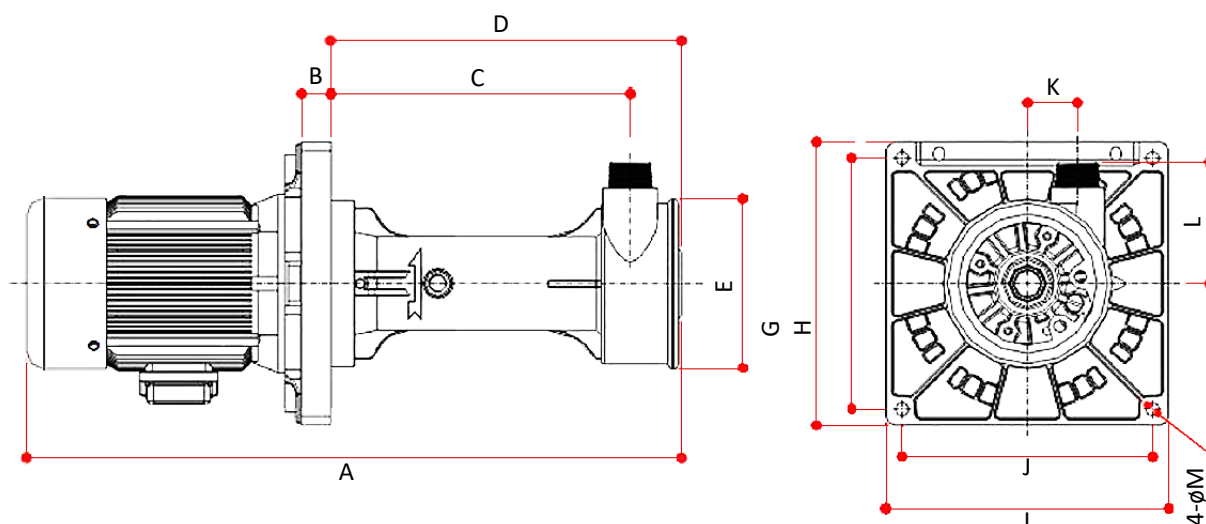
PD Series

PD	65	05	2	E
1	2	3	4	5
				
1. Pump Casing - PD-FRPP	2. Suct Dia. - 65-2.5" - 75-3" - 100-4"	3. Power - 05-3 Ø 5 HP - 07-3 Ø 7.5 HP - 10-3 Ø 10 HP - 15-3 Ø 15 HP	4. Pole - 2-2P	5. Rubber Material - E-EPDM - V-VITON

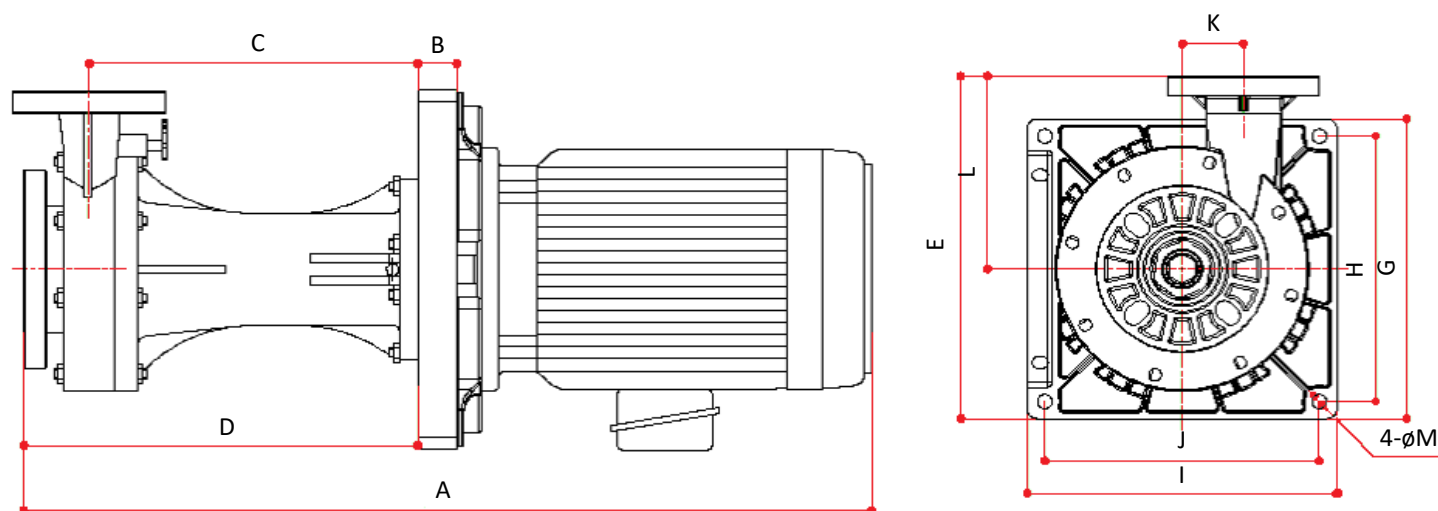
Specification Table

Model	Curve No.	Max. Head (m)	Max. Capacity (l/min)	Suct./Dis. Diameter (inch)	Power			Weight (kg)
					Phase	Pole	HP	
Frequency: 50 Hz								
PDS-50022	a	14	350	2" / 1.5"	3	2	2	21
PDS-50032	b	17	433	2" / 1.5"	3	2	3	28
PD-65052	c	21	766	2.5" / 2"	3	2	5	60
PD-75072	d	25	933	3" / 2.5"	3	2	7.5	92
PD-75102	e	25.5	1050	3" / 2.5"	3	2	10	110
PD-100152	f	31.5	1750	4" / 4"	3	2	15	123

Dimension



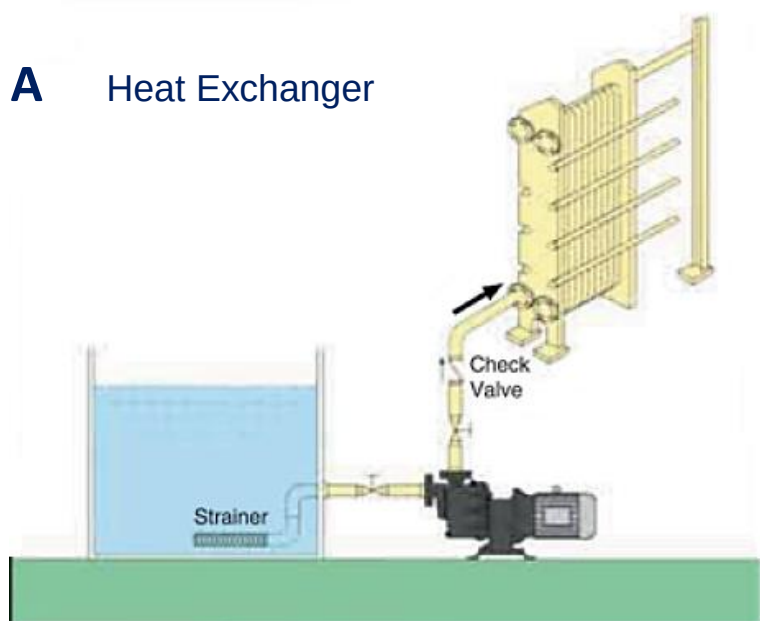
Model	A	B	C	D	E	G	H	I	J	K	L	M
PDS-50022	712	32	337	395	190	320	280	320	280	56	136	15
PDS-50032	741	32	337	395	190	320	280	320	280	56	136	15



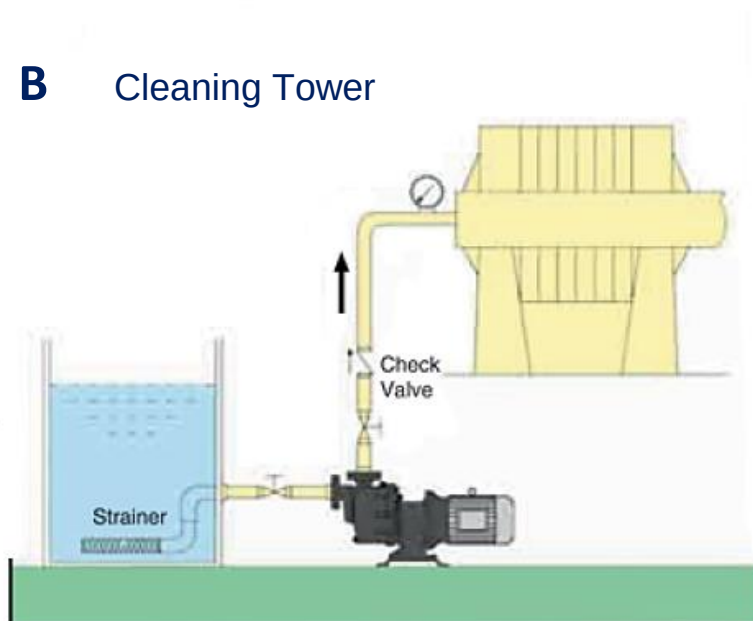
Model	A	B	C	D	E	G	H	I	J	K	L	M
PD-65052	795	32	357	430	360	320	280	320	280	63	200	15
PD-75072	875	32	357	430	360	320	280	320	280	63	200	15
PD-75102	900	32	357	430	360	320	280	320	280	63	200	15
PD-100152	920	32	362	430	360	320	280	320	280	68	200	15

Application Sample

A Heat Exchanger



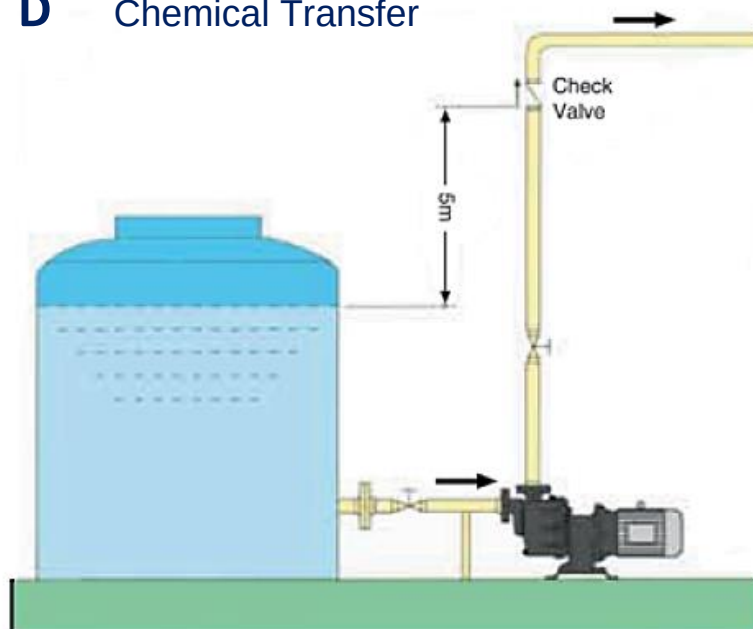
B Cleaning Tower



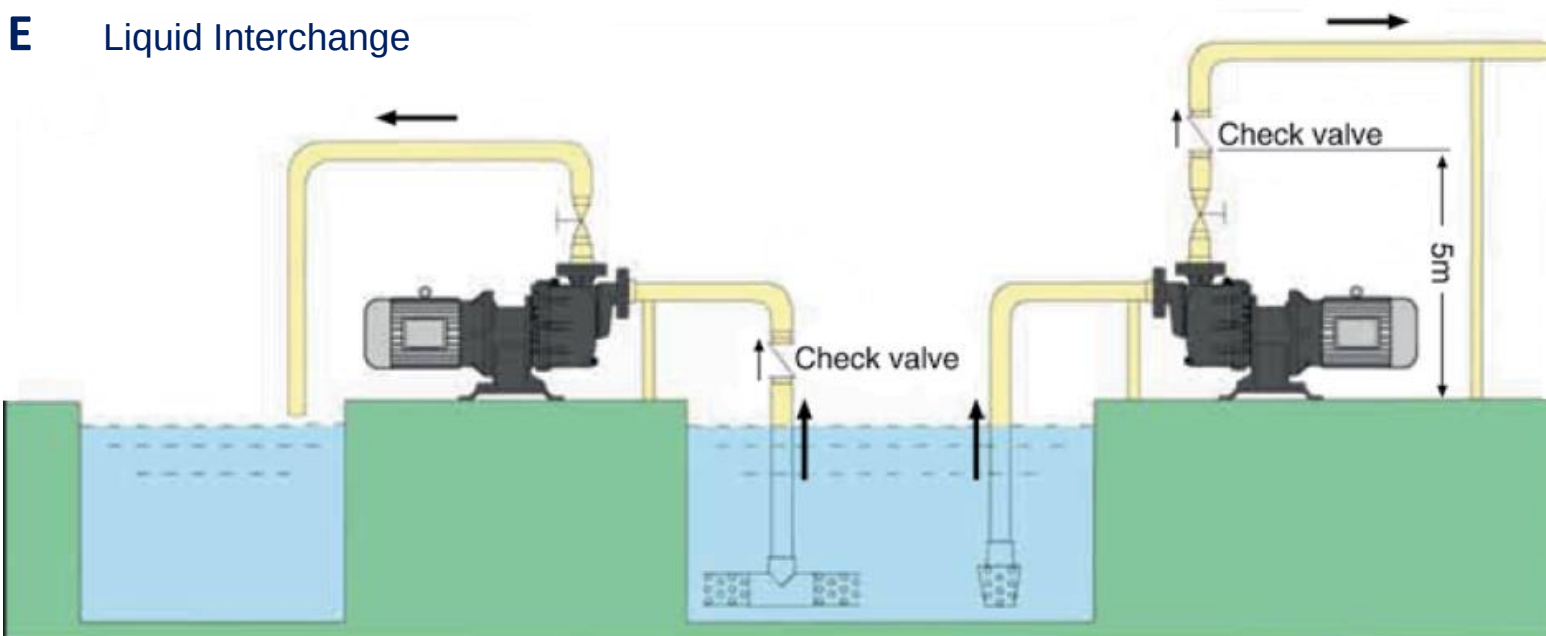
C Cleaning Waste Gas



D Chemical Transfer

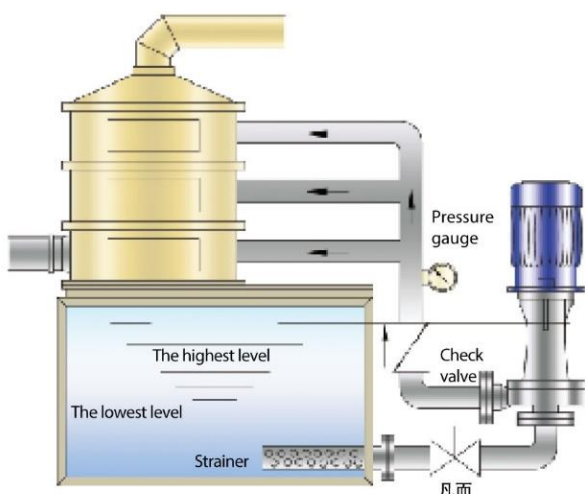


E Liquid Interchange

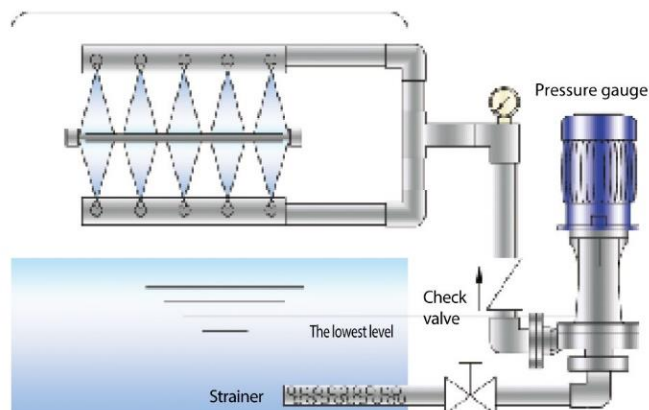


Application Sample

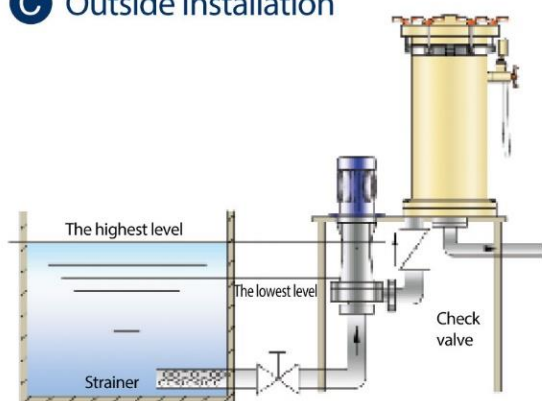
A Scrubber



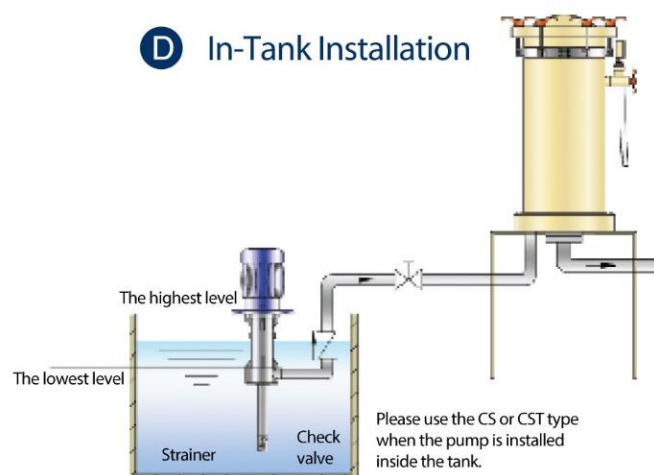
B Etching



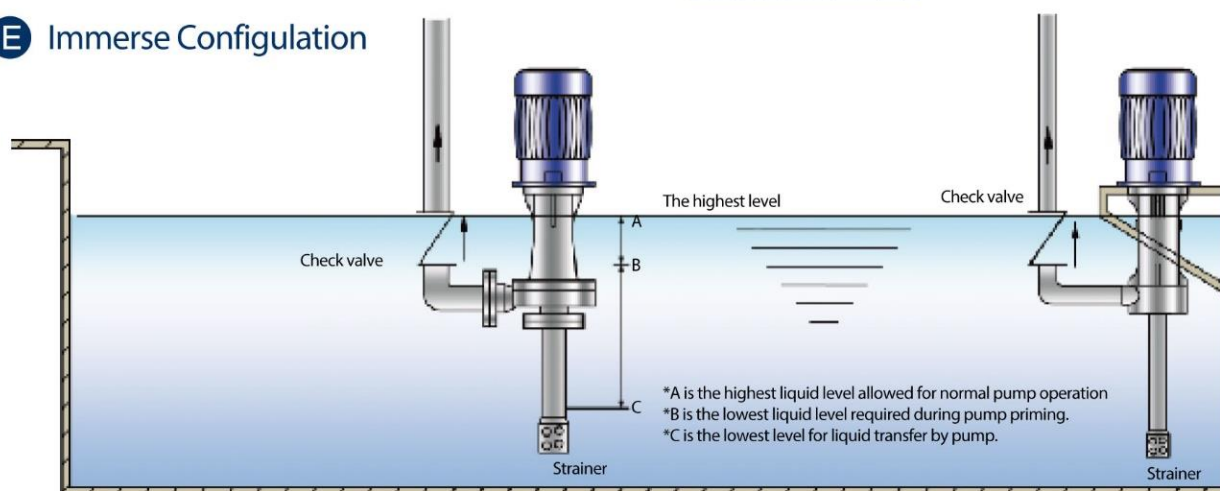
C Outside Installation



D In-Tank Installation



E Immerse Configuration



Cautions:

1. Set a check valve at outlet of the pump if the outlet pipeline is higher than the pump and may cause back flow. Do not put the check valve higher than the highest liquid level in tank too much.
2. Set a strainer at the end of inlet to keep the pump from being damaged by impurities. (The total area of the strainer should be more than 5 times of the suction size.)
3. Please contact our technician if any special demand required. For example, anti-explosion motor.
4. Motor should be anti-corrosion coated for special corrodent environment.

CORROSION RESISTANCE CHART

CHEMICAL NAME	CONCENTRATION %	TEMPERATURE °C	BODY MATERIAL			SEAL MATERIAL			RUBBER MATERIAL		
			FRPP	CFRPP	PVDF	Ceramic	Carbon	Sic	NBR	EPT	VITON
H ₂ SO ₄ Sulfuric acid	30	40	●	●	●	●	●	●	●	●	●
		60	●	●	●	●	●	●		●	●
		80	●	●	●	●	●	●		○	●
		95			●	●	●	●			●
	60	40	●	●	●	●	●	●		●	●
		60	●	●	●	●	●	●		●	●
		80	○	○	●	●	●	●		○	●
		95			●			●			●
	98	40			●	●		●			●
		60			○	●		●			●
		80									
		95									
HCL Hydrochloric acid	15	40	●	●	●	○	●	●		●	●
		60	●	●	●	●	●	●		●	●
		80	○	○	●	●	●	●		○	●
	32	40	●	●	●	●	●	●		○	○
		60	●	●	●	●	●	●			
		80	○	○	●	●	●	●			
CrO ₂ Chromic acid	20	40			●	●		●			●
		60			●	●		●			●
		80			●	●		●			○
HNO ₂ Nitric acid	20	40	●	●	●	●		●			●
		60	○	○	●	○		●			●
		80	○	○	●			●			●
	50	40	●	●	●			●			●
		60	○	○	●			●			●
		80									
H ₂ PO ₄ Phosphoric acid	25	40	●	●	●	●	●	●	●	●	●
		60	●	●	●	●	●	●	○	●	●
		80	○	○	●	●	●	●		○	●
	50	40	●	●	●	●	●	●		●	●
		60	●	●	●	●	●	●		○	●
		80	○	○	●	○	●	●		○	●
NaOCl Sodium Hypochlorite	10	40	○	○	●	●	○	●			●
		60	△	△	●	●	△	●			●
		80	×	△	●	●	×	●			●
CH ₂ COOH Acetic acid	25	40	●	●	●	●	●	●			×
		60	●	●	●	●	●	●			×
		80	○	○	●	●	●	●			×
HF Hydrofluoric	25	40	×	●	●	×	○	●		●	●
		60	×	○	●	×	○	●		●	●
		80	×	×	●	×	○	●		○	●
HCl+HNO ₂ Aquaregia	3 : 1	40	×	×	●	●	×	●	×		○
		60	×	×	●	○	×	●	×		○
		80	×	×	●		×	●	×		●
H ₂ O ₂ Hydrogen Peroxide	10	40	●	●	●	●	×	●	×		●
		60	○	○	●	●	×	●	×		●
		80	×	×	●	●	×	●	×		●
NaOH Caustic soda	45	40	●	●	●	△	●	●	●	●	○
		60	○	○	○	×	●	●	●	●	△
		80	○	○	×	×	●	●	○	○	△
FeCl ₃ Ferric chloride		40	●	●	●	●	●	●	●	●	●
		60	●	●	●	●	●	●	○	●	●
		80	●	●	●	●	●	●		●	●
Ca (CN) ₂ Copper Cyanide		40	●	●	●	△	●	●	●		●
		60	●	●	●	△	●	●	●		●
Zn Cl ₂ Zinc Chlorate		40	●	●	●	●	●	●	●		●
		60	●	●	●	●	●	●	●		●
NiSO ₄ Nickel Sulfate		40	●	●	●	●	●	●	●		●
		60	●	●	●	●	●	●	●		●

● EXCELLENT ○ GOOD △ NOT GOOD × BAD

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