

ZMD

Self-priming Magnetic Drive Pump Lined with PTFE/FEP



ZMD series plastic lined self-priming sealless magnetic drive pump is specially researched for low sump level, which transferring inflammable, explosive and volatile chemicals

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

Patent no.: ZL200820038729.8 Patent name: New type fluoroplastic magnetic pump

APPLICATION

- Petrochemicals
- Non-ferrous metal
- Metallurgy
- Pesticide
- Acid and caustics
- Pulp production
- Acid pickling process
- Rare- earth separation
- Galvanization
- Electronics etc

PUMPING LIQUID

Acids & lyes
Waste water
Chlorine water
Electrolyte

ECONOMIC AND RELIABLE DESIGN FEATURES

- Multi-function
Combines both sealed centrifugal pump and magnetic pump excellent features, It can widely used in corrosive industry and easy for operation.
- Sealess design and free leakage. Without shaft seal and driving through by magnetic coupling, which avoid leakage.
- Containment shell made of Carbon-fiber-reinforced plastic [CFRP], With high-strength mechanical property, free from the magnetic eddy current phenomenon.

OPERATING RANGE

Flow rate: 3-60m³/hr

Total delivery head: 28-49m

Temperature ratings from: -20°C to+80 °C

ADVANTAGES

The Pump Housing

Virgin Fluoroplastic

Considerably easier and more reliable quality control

No reduction in the permeation resistance.

Pure pharmaceutical and fine chemical media: no contamination.

With ductile cast iron casing absorbs all the hydraulic and pipework-forces. According to DIN/ISO5199/Europump 1979 standard. Comparing to plastic pumps, no expansion joints are required. Flange with service-minded through holes to DIN;ANSI,BS;JIS. For flushing system and monitoring device as required, the draining nozzle will be offered.



Spacer sleeve made of Carbon-fiber-reinforced plastic CFRP

The metal-free system does not induce any eddy currents and thus avoids unnecessary heat generation. Efficiency and operational reliability benefit from this .Even low flow rates or media near their boiling point can therefore be conveyed without the introduction of heat.



Close Impeller

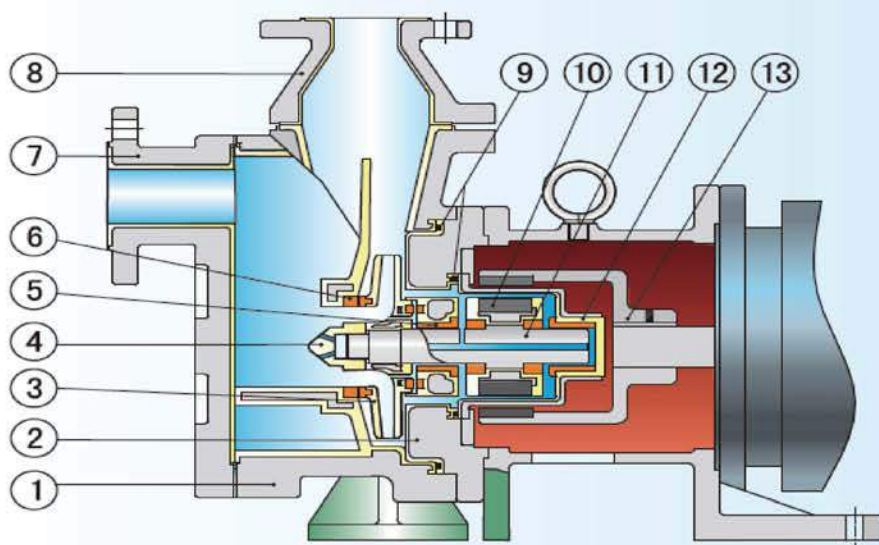
Closed impeller with flow-optimized vane channels: for high efficiency and low NPSH values. The metal core is protected by a thick-walled seamless plastic lining, the large metal core and increase the mechanical strength considerably even at elevated temperature and high flow rates .Secured screw connection to the shaft to against loosening if the pump is started up in the wrong direction of rotation or in the case of back-flowing media.



Bearing

The main character of SIC is extreme hardness、 high-temperature 、 anti-corrosion、 small expansion coefficient, long useful life

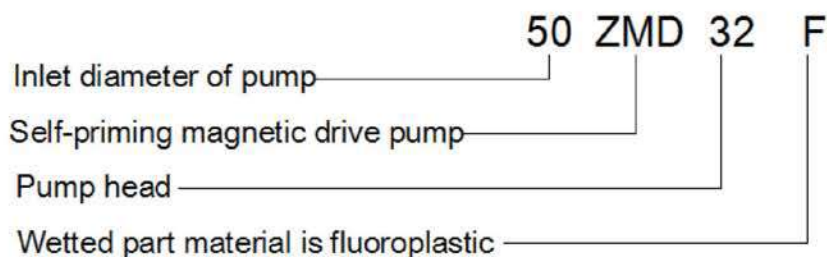
Parts and material



Item	Designation	Material
1	Pump housing	Cast iron HT200 lined with FEP
2	Pump cover	Cast iron HT200 lined with FEP
3	Impeller	45# steel lined with F50(Fluoroplastic)
4	Impeller cap	PTFE
5	Front bearing	PTFE
6	Pump mouth-ring	Silicon carbide
7	Front pump cover	Cast iron HT200 lined with FEP
8	Discharge flange	Cast iron HT200 lined with FEP
9	Seal ring	Fluorubber
10	Rotor assembly	FEP/NdFeB
11	Main shaft	Silicon carbide
12	Can assembly	FEP/Carbon-fibre-reinforced plastic
13	Drive magnet coupling	Cast iron HT200/NdFeB

Model and Parameter

Model Identification



Installation Dimension

Speed:2900RPM

* Standard parameter

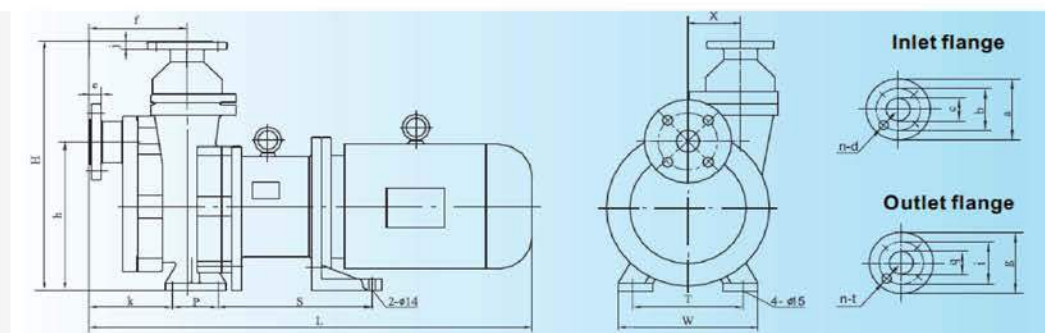
Item	Model	Flow (m3/h)	Head (m)	Efficiency (%)	NPSHa (m)	Inlet x outlet (mm)	Self- priming height (m)	Self- priming time (seconds)	Speed (RPM)	Power (KW)	Pump and motor weight (kg)
1	40ZMD-32F	3	34	16	3.00	40*25	3	150	2900	4	125
		*6	32	24							
		10	28	20							
2	50ZMD-32F	8	34	25	3.00	50*50	3	180	2900	5.5	180
		*15	32	44							
		20	28	44							
3	50ZMD-45F	8	49	21	3.00	50*50	3	180	2900	7.5	170
		*12.5	48	35							
		15	47	40							
4	65ZMD-32F	20	34	40	3.50	65*50	3	200	2900	7.5	200
		*30	32	52							
		35	28	48							
5	65ZMD-45F	20	45	40	4.50	65*40	3	200	2900	11	290
		*25	45	44							
		35	40	53							
6	80ZMD-32F	35	34	50	3.50	80*65	3	200	2900	11	280
		*60	32	55							
		65	28	50							
7	80ZMD-45F	35	46	38	4.50	80*50	3	200	2900	18.5	320
		*50	45	50							
		60	40	48							

Note

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.

Installation Drawing



Item	L	S	P	k	f	W	T	H	h	a	b	c	n-Ød	e	g	i	q	x	j	n-Øt
40ZMD-32F	745	275	70	145	185	240	190	450	270	Ø150	Ø110	40	4- Ø18	20	Ø115	Ø85	25	90	18	4- Ø15
50ZMD-32F	875	318	95	172	225	265	212	496	320	Ø165	Ø125	50	4- Ø18	20	Ø165	Ø125	50	100	18	4- Ø18
50ZMD-45F	905	336	70	215	225	265	212	510	330	Ø165	Ø125	50	4- Ø18	20	Ø165	Ø125	50	105	20	4- Ø18
65ZMD-32F	903	354	95	165	230	265	212	495	320	Ø185	Ø145	65	4- Ø18	20	Ø165	Ø125	50	98	18	4- Ø18
65ZMD-45F	1110	410	70	218	225	290	220	610	400	Ø185	Ø145	65	4- Ø18	20	Ø150	Ø110	40	114	18	4- Ø18
80ZMD-32F	1180	412	75	220	255	340	280	534	380	Ø200	Ø160	80	4- Ø18	20	Ø185	Ø145	65	115	20	4- Ø18
80ZMD-32F	1180	412	75	220	255	290	220	534	380	Ø200	Ø160	80	4- Ø18	20	Ø185	Ø145	65	115	20	4- Ø18
80ZMD-45F	1150	416	70	244	245	290	220	618	450	Ø200	Ø160	80	4- Ø18	20	Ø185	Ø145	65	120	20	4- Ø18