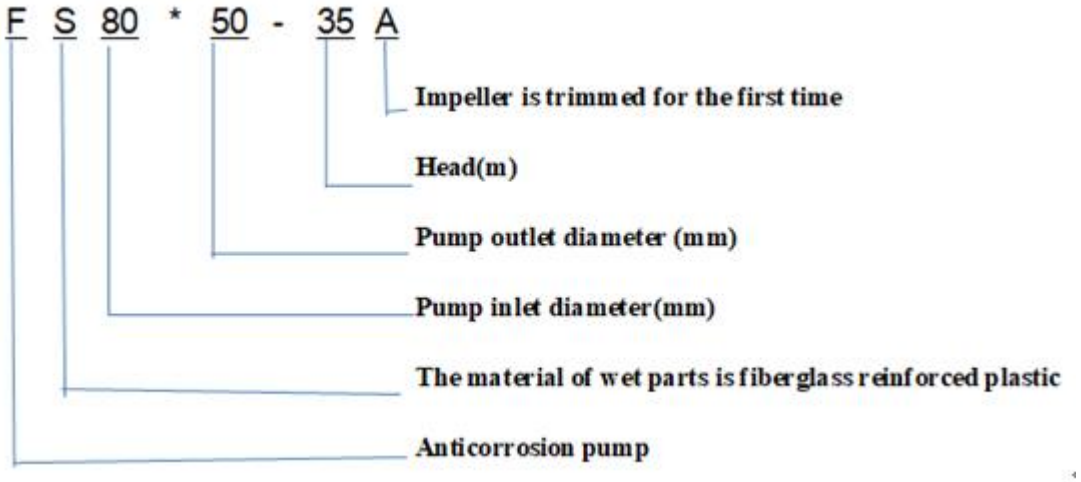
FS Horizontal Fiberglass Reinforced Plastic Centrifugal Pump

Model Meaning:



Pump Summary:

FS horizontal fiberglass centrifugal pump is designed with advanced and reasonable structure, high standard, strong interchangeability parts and convenient disassembly and maintenance etc.

The parts which contact with the liquids for FS fiberglass centrifugal pump are made of polyvinyl butyraldehyde modified phenolic fiberglass by high temperature molding.

The pump has the advantages such as light weight, high strength, no deformation, high temperature resistance and corrosion resistance.

In the aspect of anti-corrosion, it can partially replace precious metals such as molybdenum-containing stainless steel, titanium and titanium alloy.

Shaft seal uses WB2 fitted outside type F4 corrugated mechanical seal and the seal is reliable and has good sealing performance and long service life.

Pump drive and direction of rotation: The pump is driven by a claw-type flexible coupling that is driven directly by the motor, and the pump rotates clockwise as viewed from the motor end.

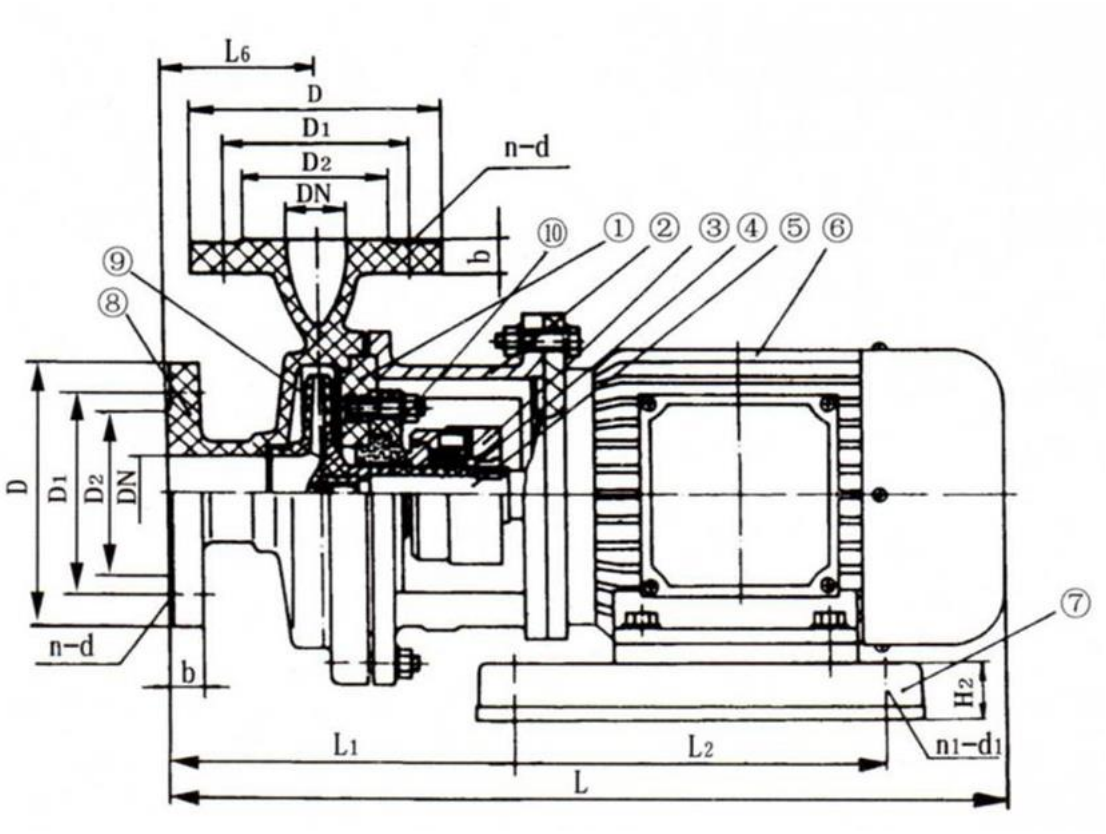
Application:

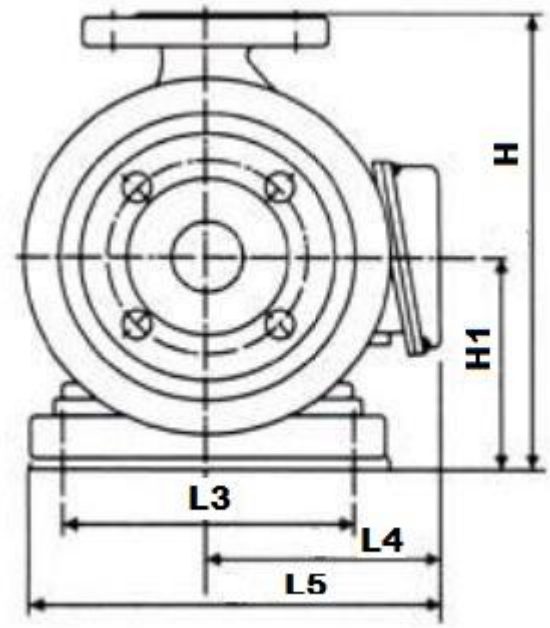
FS horizontal fiberglass reinforced plastic centrifugal pumps are mainly used in petrochemical,refining,dyestuff,printing,dyeing,pesticide,pharmaceutical,rare earth, leather, fertilizers and other industries. The pumps are suitable to transport various non-oxidizing acids(hydrochloric acid, dilute, formic acid, acetic acid, butyric acid) and other corrosive liquids which do not contain solid particles and are not easy to crystallize and the liquids temperature is no higher than 100 Degree Celsius.

Technical specification sheet:

Model	Flow rate	Head	Speed	Efficiency	NPSH	Motor power
	m3/h	m	r/min	%	m	kw
FS25×25-12.5	3.2	12.5	2900	41	3	0.55/0.75
FS40×32-20	6.3	20	2900	50	3	1.1/1.5
FS40×32-32	6.3	32	2900	45	3	2.2/3
FS50×40-20	12.5	20	2900	53	3	2.2/3
FS50×32-32	12.5	32	2900	51	3	4.0/5.5
FS65×50-20	25	20	2900	64	3	3.0/4
FS65×50-32	25	32	2900	60	3	5.5/7.5
FS80×65-32	50	32	2900	69	4	7.5/11
FS80×65-35	50	35	2900	69	4	11
FS100×80-50	100	50	2900	73	5	22/30

Structure drawing and size drawing:





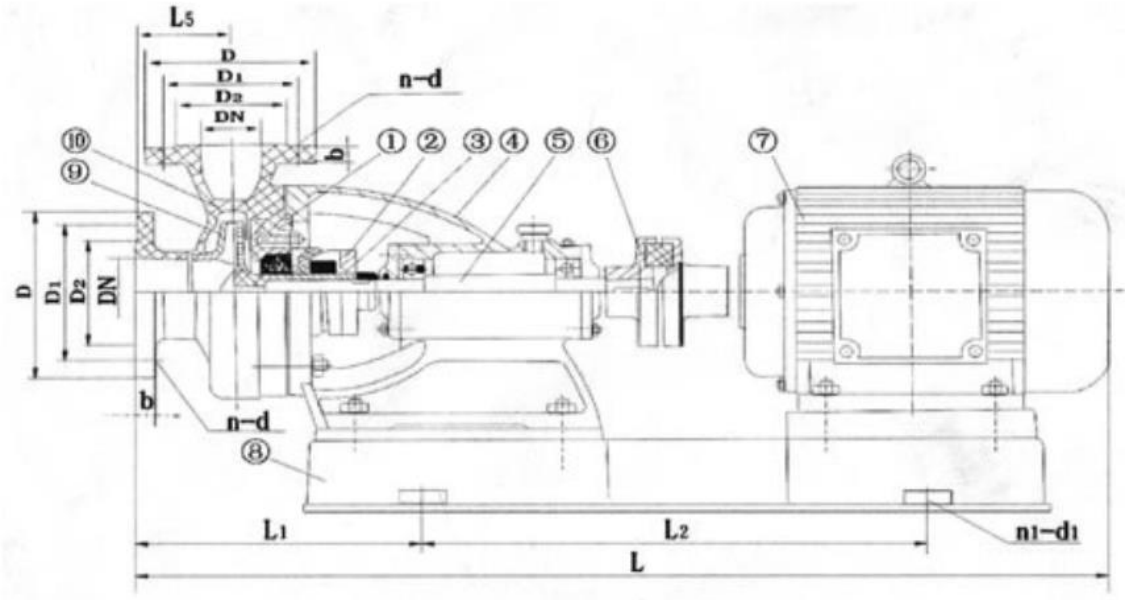
1.pump cover 2.connector frame 3.mechanical seal 4.shaft sleeve 5.bearing

6.motor 7.base plate 8.pump body 9.impeller 10. Seal gland

Sizes sheet for model FS25×25-12.5 to model FS50×40-20

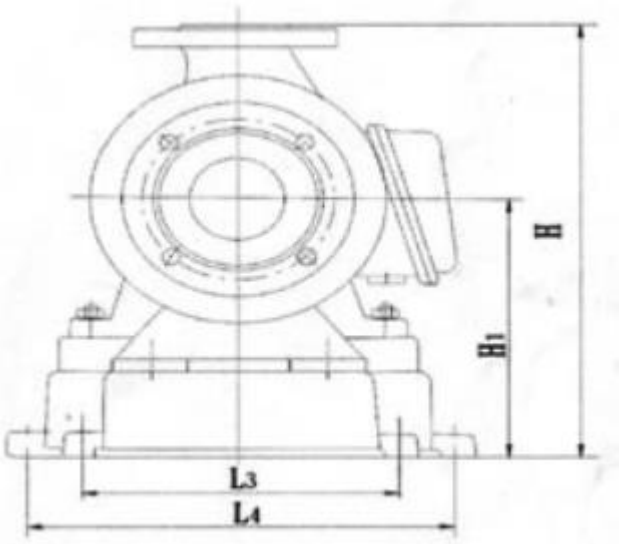
Model	Pump inlet							Pump outlet							L	L1	L2	L3	L4	L5	L6	H	H1	n2	n1	d1
	DN	D	D1	D2	b	n	d	DN	D	D1	D2	b	n	d												
FS25×25-12.5	25	115	85	65	16	4	14	25	115	85	65	16	4	14	437	180	180	140	150	244	60	200	94	23	4	14
FS40×32-20	40	145	110	88	18	4	18	32	135	100	78	18	4	18	458	192	200	150	150	252	82	258	120	40	4	14
FS40×32-32	40	145	110	88	18	4	18	32	138	100	78	18	4	18	540	230	240	160	155	262	85	315	145	55	4	18
FS50×40-20	50	160	125	100	20	4	18	40	145	110	88	19	4	19	535	226	240	160	155	262	100	295	145	55	4	18

Sizes sheet for model FS50×32-32 to model FS100×80-50



1.pump cover 2.mechanical seal 3.shaft sleeve 4.connector frame 5.shaft

6.shaft coupling 7.motor 8.base plate 9.impeller 10. pump body



Model	Pump inlet							Pump outlet							L	L1	L2	L3	L4	L5	H	H1	n1	d1	Power (kw)
	DN	D	D1	D2	b	n	d	DN	D	D1	D2	b	n	d											
FS50×32-32	50	160	125	100	18	4	18	32	135	100	75	18	4	18	945	319	420	310	370	80	435	250	4	24	4
FS65×50-20	65	180	145	120	21.5	4	18	50	160	125	100	21.5	4	18	830	250	420	250	320	90	360	210	4	18.5	3
FS65×50-32	65	185	145	122	22	4	18	50	165	125	102	22	4	18	1020	345	420	310	370	90	430	250	4	24	5.5
FS80×65-32	80	195	160	135	23.5	4	18	65	180	145	120	21.5	4	18	1022	370	520	310	410	100	450	250	4	24	7.5
FS80×65-35	80	195	160	135	23.5	4	18	65	180	145	120	21.5	4	18	1150	370	520	310	410	100	480	250	4	24	11
FS100×80-50	100	215	180	158	24	8	18	80	195	160	138	23.5	4	18	1353	428	635	370	485	110	530	280	4	24	22
															1462						575	300	4		30

Installation, use and maintenance:

1. FS type FRP centrifugal pump is installed according to the selected pump type and the anchor foundation should be made according to the shape and installation size. According to the requirements of the pipeline position, the installation location is convenient to manage and maintain the pipeline.
2. Normally liquid level is higher than the position of pump inlet. If the pump body is higher than the liquid level at installation, a liquid filling device must be attached.
3. The pump body should be filled with liquids before starting pump. It is strictly prohibited to run and reverse when pump body is not filled with liquids. Otherwise, the pump body will damage the mechanical seal due to the lack of liquid cooling.
4. When stopping, switch the liquid pipe valve to avoid backflow of liquid.
5. When repairing, firstly remove the pump body, then loosen the mechanical seal screw and remove the mechanical seal.
6. If the ball bearing or pump shaft is replaced, the frame should be removed. Firstly loose the 4 screws of the front bearing cover, remove the nut and coupling of the rear end of the pump shaft, and drive out the pump shaft from the front end of the pump and finally remove the cover of rear shaft seal.
7. Reassembling after repairing and replacing consumables.
1) First, the front and rear bearings and the oil seal are respectively installed in the front and rear covers, and the front cover with the bearing is mounted on the pump shaft, and then the pump shaft with the front bearing cover is mounted on the frame. .
2) The bearing sleeve is sleeved on the pump shaft, and the rear cover with the bearing is mounted on the pump shaft and the frame.
3) Set the pressure ring, install the coupling and tighten the nut.
4) Dynamic ring of the mechanism sealing is placed on the pump shaft.
5) Install the static ring into pump body and press the screw sleeve tightly.
6) Put the pump body with static ring on the frame, and adjust the coordination of dynamic ring and static ring for mechanical seal(usually 3-3.5mm).And remove the pump body first.

7) Fix the dynamic ring of mechanical seal on the pump shaft, and then install the pump body on the frame, and turn the coupling by hand to see whether dynamic ring and static ring of mechanical seal static fit or not.

8) Install the impeller on the pump shaft, and use Teflon gasket to adjust the gap between the impeller and pump body (usually between 2-2.5mm) and pad anticorrosive gaskets, and then tighten the impeller and cap, finally install the gasket of pump casing and the pump cover and tighten the anti-corrosion nut.
9)Put the assembled pump head on the base plate and adjust the gap between the coupling and motor axis.
10)Pay high attention to the usual maintenance. Often check whether the pump is running smoothly, with or without abnormal vibration. Pay attention to replace the elastic block, add the lubricating oil for the bearing according to the oil gauge, and regularly add the lubricating oil in the frame (once every three months).

Material selection:

Common steel, stainless steel, aluminum, lead etc commonly used metal materials are seriously corroded in hydrochloric acid and so the materials is not suitable for hydrochloric.

Most plastics have good corrosion resistance to hydrochloric acid. A class plastic such as phenolic-polytrifluorochloroethylene,polytetrafluoroethylene,polyperfluoroethylene,polyvinylidene fluoride etc can resist hydrochloric acid with random concentrations and boiling points.

Phenolic resin (fiberglass reinforced plastic) pumps have good corrosion resistance to non-oxidizing acid(hydrochloric acid, dilute, phosphoric acid etc),saline solution and water. But Phenolic resin pumps can not resist the corrosion of alkali and oxidizing acid(nitric acid etc).

Our fiberglass reinforced plastic centrifugal pump series:

FS horizontal fiberglass centrifugal pump

SL Vertical fiberglass centrifugal pump

SZ Self priming fiberglass centrifugal pump

FSY Submersible fiberglass centrifugal pump

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