



SZF Series

Plastic-free pump (direct connection)

SZF Series

Product Overview



The SZF type oxygen plastic chemical centrifugal pump (hereinafter referred to as the pump) developed by our company is a single-stage single-suction cantilever centrifugal pump. Adopts excellent hydraulic structure and advanced and mature processing. Made by craftsmanship. Its overcurrent parts are made of oxygenated material (F46 or F26) and added to the metal core as a whole. It is made of secondary pressing and sintering. The product has a small size, stable operation, high efficiency, and economical. It has obvious advantages, easy to install and use,

and can be replaced in strong acid media. 316L and Monel and other high-alloy stainless steel, ultra-low-carbon stainless steel. Can transport any concentration. A highly corrosive liquid under harsh conditions such as sulfuric acid, aqua regia, and strong alkali. Has corrosion resistance, good corrosion resistance, wide range of high and low temperature media resistance, advanced mechanical sealing materials, pores during die casting. It has the advantages of small size, high pump efficiency and long service life.

Operating Condition

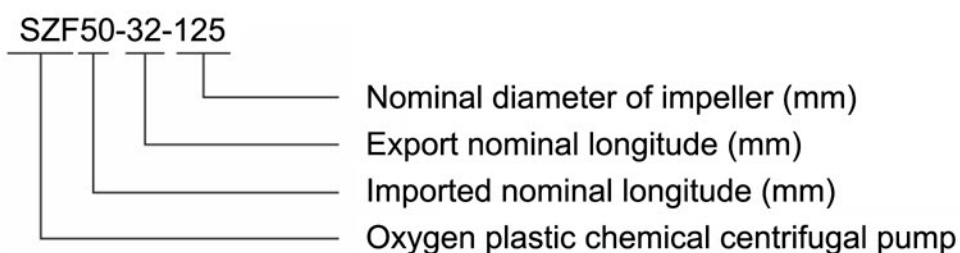
- Liquid temperature: $-20^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Flow range: see pump parameters
- Maximum head: see pump parameters
- Maximum medium density: $135 \times 10 \text{ kg/m}^3$
- Ambient temperature: up to $+40^{\circ}\text{C}$
- Highest altitude: 1000m
- Maximum system pressure: 10bar

*When the specific gravity and viscosity of the liquid transported by the pump are large, the shaft power will rise, so it must be used with the shaft power the rate matches the motor.

Applied Range

The product is suitable for thin liquids that do not contain solid particles and fibers;
 Petroleum and chemical industry;
 Pharmaceutical, pesticide, pickling, dye industry; paint industry;
 Refining, papermaking, electroplating industry;
 Suitable for any concentration of hydrochloric acid, nitric acid, sulfuric acid, hydrozoic acid, Acid, alkali, salt solution, strong oxidizing agent such as oxalic acid, phosphoric acid, aqua regia, etc.,

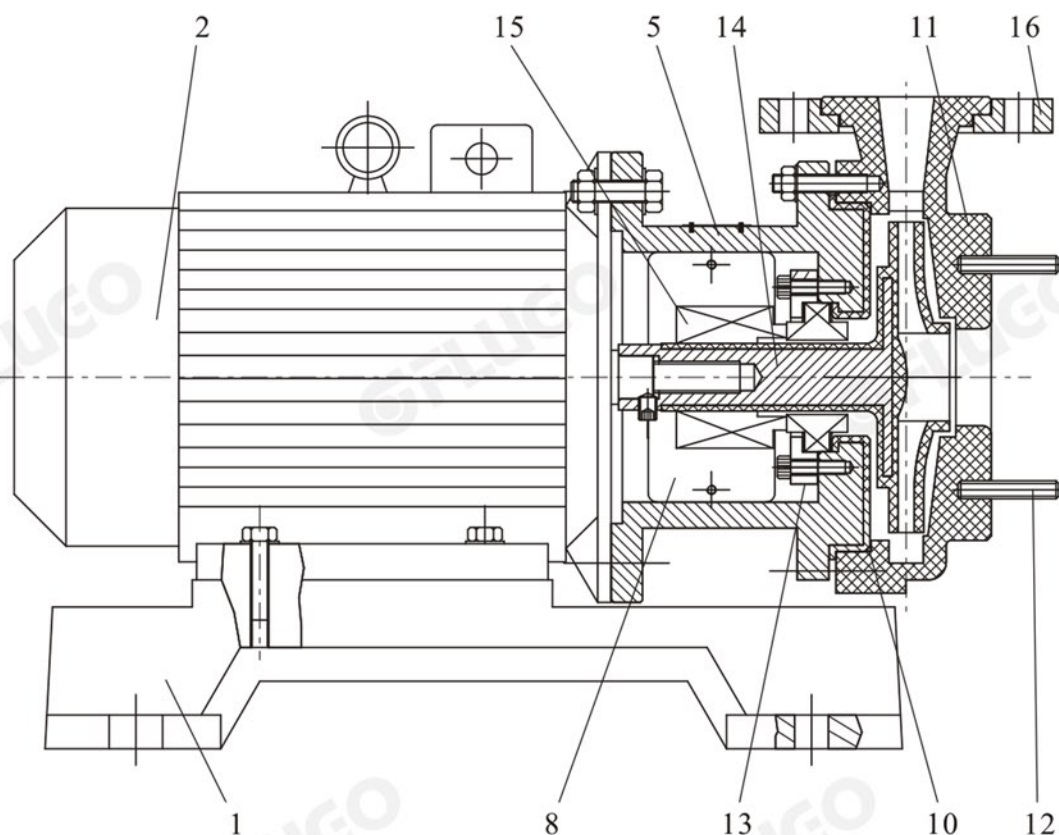
Product Model Description



Performance Parameters

Model	Import (mm)	Export (mm)	Capacity (m ³ /h)	Head (m)	Rotate Speed (r/min)	Matched Motor (kW/Series)
SZF25-25-125	25	25	1.8	5	1450	0.55/4
			3.2	20	2900	1.1/2
SZF25-25-160	25	25	1.8	8	1450	0.75/4
			2.4	30	2900	1.5/2
			3.2	32	2900	2.2/2
SZF40-25-125	40	25	3	5	1450	0.75/4
			6.3	20	2900	1.5/2
SZF40-25-160	40	25	3	8	1450	1.1/4
			6.3	32	2900	3/2
SZF40-25-200	40	25	3	12.5	1450	1.1/4
			6.3	50	2900	4/2
SZF50-32-125	50	32	6.3	5	1450	1.1/4
			12.5	20	2900	2.2/2
			12.5	20	2900	3/2
SZF50-32-160	50	32	6.3	8	1450	1.5/4
			12.5	32	2900	4/2
SZF50-32-200	50	32	6.3	12.5	1450	2.2/4
			12.5	50	2900	7.5/2
SZF65-50-125	65	50	12.5	5	1450	1.5/4
			25	20	2900	4/2
SZF65-50-160	65	50	12.5	8	1450	2.2/4
			25	32	2900	5.5/2
SZF65-40-200	65	40	12.5	12.5	1450	3/4
			25	50	2900	11/2
SZF80-65-125	80	65	25	5	1450	1.5/4
			50	20	2900	7.5/2
SZF80-65-160	80	65	25	8	1450	3/4
			50	32	2900	11/2
SZF80-50-200	80	50	25	12.5	1450	4/4
			50	50	2900	15/2
SZF100-80-125	100	80	50	5	1450	4/4
			100	20	2900	11/2
SZF100-80-160	100	80	50	8	1450	5.5/4
			100	32	2900	15/2

Sectional drawing



Part list

No.	Name	Material	Code/AISI/ASTM
1	Base	HT200	ASTM25B
2	Motor		
5	Injection moulding pump head	HT200+F26(F46)	ASTM25B+F26(F46)
8	Guard	Stainless Steel OCr18Ni9	AISI304
10	O ring	FPM	
11	Casing	F26(F46)	
12	Double end studs	Stainless Steel OCr18Ni9	AISI304
13	Seal cover	HT200	ASTM25B
14	Impeller	Steel+F26(F46)	ASTMA570+F26(F46)
15	Mechanical seal	Silicon Carbide/Silicon Carbide	
16	Outlet flange	HT200	ASTM25B

F46,F26 Corrosion resistance table

Medium	F46	F26	Medium	F46	F26	Medium	F46	F26
Acetic acid; Benzene acid	✓	✓	Sulfuric Acid +20% Smoke sulfate	✓/80°C	—	Titanium tetrachloride; zinc chloride	✓	✓
Arsenate; Boric acid	✓	✓	Smoke sulfate	✓	×	Ferric Trichloride, carbon tetrachloride	✓	✓
Carbonate	✓	✓/20°C	sulfurous acid	✓	✓	Salt solution; seawater	✓	✓
Fluoride acid	✓	—	Ammonium hydroxide, potassium hydroxide	✓	✓	Alum (slurry); black liquor (slurry)	×	—
Hypochlorite; Wet chlorine	✓	✓	Sodium hydroxide <20%	✓	✓	Blue alum; NaHSO ₃	✓	✓
Chromic Acid	✓	✓/50°C	Sodium hydroxide <80%	✓	×	Sodium bicarbonate; soda	✓	✓
citric acid	✓	✓/120°C	Calcium hydroxide	✓	✓	Sodium hypochlorite	✓	✓/20%
Toluene-acid	✓	✓/65°C	Acetic acid salt solution	✓	✓	Sodium chlorate; calcium chloride	✓	✓
Formic acid	✓	✓	Ammonium nitrate; barium nitrate	✓	✓	Chromium sodium	✓	—
Glycolic acid	—	✓/20°C	Sodium nitrate; copper nitrate	✓	✓	Al acetic	✓	✓
hydrochloric acid	✓/65°C	✓/37%	Iron nitrate	✓	✓	Bromine	✓	✓/20°C
hydrofluoric acid; Fluorosilicic acid	✓	✓	Nitrate lead; silver nitrate	✓	—	Glycerol	✓	✓
Hydrogen Peroxide; lactic acid	✓	✓/20°C	Aluminum sulfate, ammonium sulfate	✓	✓	Pyridine	✓	×
Maleic acid; malic acid	✓	✓	ammonium sulfate + Sulfuric Acid	✓	✓	acetic (acid) anhydride	✓	✓/20°C
Mixed acid	✓	—	Barium sulfate; sodium sulfate	✓	✓	Aniline dye; hydrochloride aniline	✓	—
Oleic acid	✓	✓	Copper sulfate	✓	✓	Methane, ethane, propane	✓	✓
Oxalate acid	✓	✓/50°C	Copper sulfate +10% Sulfuric Acid	✓	—	Nitrobenzene	✓	✓/20°C
Picric acid, stearic acid	✓	✓/20°C	Ferrum sulfate +10% Sulfuric Acid	✓	—	Tar and ammonia	✓	—
Tartrate; Tannin	✓	✓	Magnesium sulfate; zinc sulfate	✓	✓	Toluene; SO ₃	✓	✓
Nitrate 5% to 10%	✓	✓/50°C	Ammonium; sodium	✓	✓	Glycol; ethylene oxide	✓	✓
Nitric Acid <50%	✓	✓	Chloride; barium chloride	✓	✓	Two-acetone; dichloro-ethanol	✓	✓/20°C
Concentrated nitric acid	✓	×	Calcium chloride	✓	✓	Ethylene dichloride, vinyl Trichloride	✓	✓
Nitric Acid +3.5% hydrofluoric acid	✓	—	Aluminum Trichloride	✓	✓/20%	Formaldehyde	✓	✓/50°C
Phosphoric Acid	✓	✓	Potassium chloride	✓	✓/65°C	Freon	×	—
Phosphoric Acid +2% Sulfuric acid +1% hydrofluoric acid	✓	—	Sodium chloride; tin chloride	✓	✓	CS ₂	✓	✓/20°C
sulfuric acid <10%	✓	✓	Silver chloride, magnesium chloride	✓	✓	Molten sulfur	✓	✓
Sulfuric acid 10% to 75%	✓	✓/65°C	Nickel Chloride	✓	✓			
Sulfuric acid 75% to 98%	✓/80°C	✓/50°C	Sulphur dichloride	✓	✓/20°C			

Note: 1. ✓/20°C means the material can be used in the medium that temperature is below 20°C. ✓ means workable, × means doesn't work. — means not known.

2. ✓/20% means the material can be used in the 20% medium.



Authorized Distributor

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