

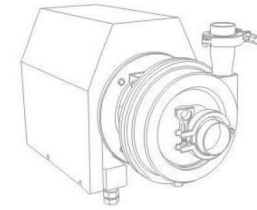


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Leader of pumps and valves

LIQUID PROCESSING EQUIPMENT

www.lpe.co.nz

YUY-L

SANITARY CENTRIFUGAL PUMP



Technical parameter

Specification

1T-500T, 0.55KW-75KW

Materials

SUS304, SUS316L (In the selection of materials, all parts that contact the materials such as pump body, pump cover and impeller are made of SUS316L or SUS304 stainless steel.)

Standards

DIN, SMS

Impeller

Open impeller, without dead corner of sanitation

Work condition

The sanitary centrifugal pump adopts horizontal conveying with high and low liquid levels. It is not of self-priming type. (Please select the self-priming pump for self-priming type.)

Surface Treatment

The liquid receiving part is subject to polishing treatment and other parts matte or sandblasting treatment.

Maximum inlet pressure

0.5MPa

Temperature range

-10°C to +140°C (EPDM)

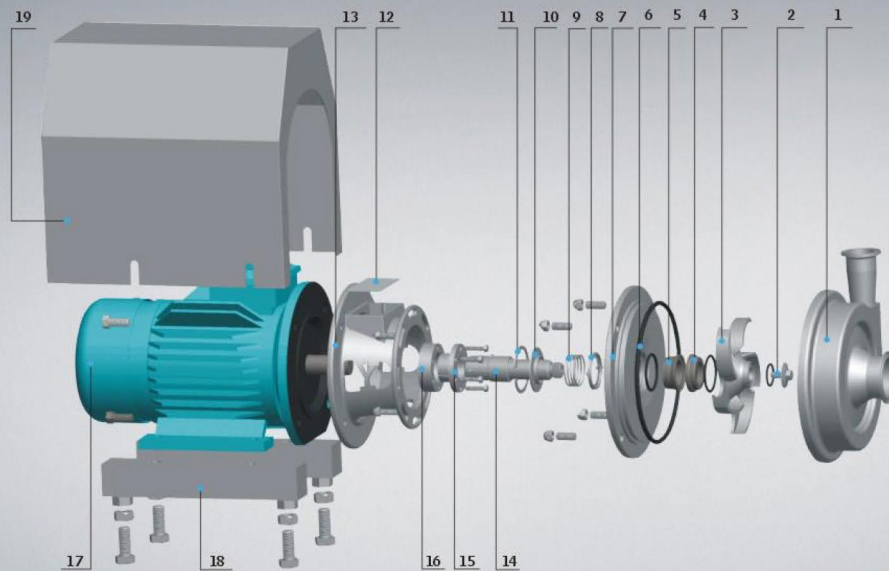
Washable mechanical seal

Water pressure: Max. 0.1MPa;
Water volume: 0.25-0.5L/min

Motor

1. Depending on the configuration, the pump mainly adopts "ABB" brand high-efficiency M2BAX three-phase AC motor. The pump is designed and manufactured according to IEC60034-1:2007, conforming to CE marking requirements.
2. The explosion-proof motor is available to meet the needs in different applications.
3. With excellent electric performance, low noise and low vibration, the motor is designed to have standard protection grade of IP55 and insulation grade of grade F.
4. Frequency: 50Hz/60Hz
5. Working mode: continuous (S1)
6. Rotation speed: The standard rotation speed of the pump is 2900r/min.

Structure exploded figure of YUY-L series sanitary centrifugal pump



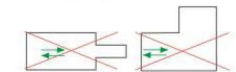
- | | |
|---------------------------------|----------------------|
| 1. Pump body | 11. Snap spring |
| 2. Shaft cap | 12. Nameplate |
| 3. Impeller | 13. Support |
| 4. Mechanical seal dynamic ring | 14. Pump shaft |
| 5. Pump body O ring | 15. Straining ring |
| 6. Mechanical seal static ring | 16. Straining sleeve |
| 7. Impeller seat | 17. Motor |
| 8. Static ring seat | 18. Pump foot |
| 9. Spring | 19. Housing |
| 10. Retainer ring | |



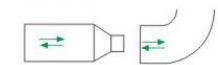
Connection ways of pump inlet and outlet

Energy loss of liquids may occur in the pipe. The loss falls into friction loss and local resistance loss. The smoother the pipe is, the lower the friction loss is. The fewer the bend is, the lower the pipe diameter change is, and the lower the local resistance loss is. Therefore, by not to use rough pipes for connection, and avoid using the method of rapid pipe changes during the connection.

Wrong pipe type



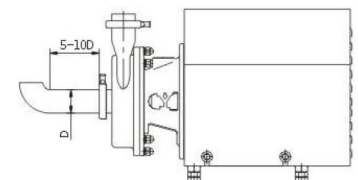
Right pipe type



Pipe diameter and connection distance

When the pump runs under small flow, the efficiency is very low, and the energy consumed makes the liquid temperature rise rapidly. When the pump runs under small flow, the return flow that passes the impeller interval will increase, causing increased damage of pump pressure pulse, vibration, noise, etc. Therefore, it is better that the connected pipe inlet diameter should be more than or equal to the designed inlet diameter. In order to ensure that the pump runs more stably, it is necessary to connect with a long straight pipe at the pump inlet, with its length 5-10 times longer than the pipe diameter.

Pipe connection distance





45° outlet with discharge valve



90° outlet with discharge valve



90° outlet



90° outlet

YUY-L series performance and model selection table

Model	Flow (m³/h)	Lift (M)	Power (Kw)	Inlet/outlet specification
YUY-L	2	14	0.55	38/32
YUY-L	3	16	0.75	38/32
YUY-L	3	24	1.5	38/38
YUY-L	3	30	2.2	51/38
YUY-L	4	18	1.1	38/38
YUY-L	5	24	1.5	38/38
YUY-L	5	36	3.0	51/38
YUY-L	10	24	2.2	51/38
YUY-L	10	36	3.0	51/51
YUY-L	10	50	5.5	51/51
YUY-L	10	60	7.5	51/51
YUY-L	15	24	3.0	51/51
YUY-L	20	24	4.0	51/51
YUY-L	20	36	5.5	51/51
YUY-L	20	55	11	63/51
YUY-L	25	35	5.5	63/51
YUY-L	30	24	5.5	63/51
YUY-L	30	36	7.5	63/51
YUY-L	40	24	7.5	76/63
YUY-L	50	24	7.5	76/63
YUY-L	50	40	11	89/76
YUY-L	60	24	11	89/76
YUY-L	60	40	15	89/89
YUY-L	50	50	15	89/89
YUY-L	80	50	18.5	102/89

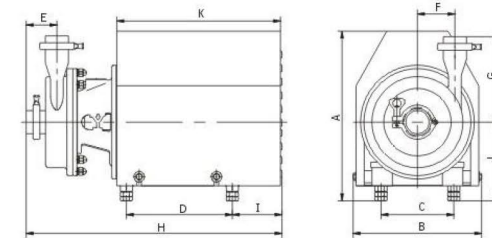
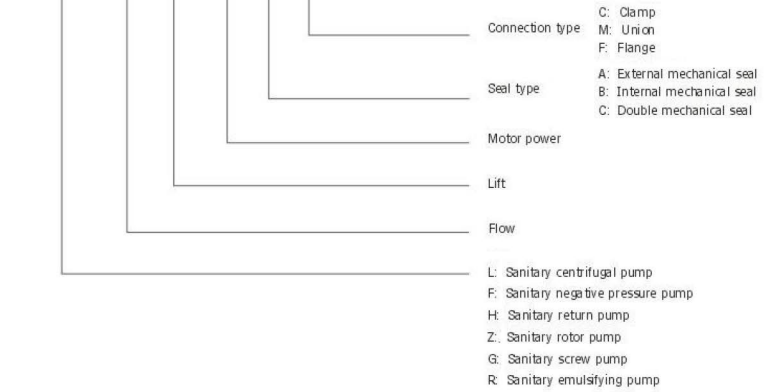


Valute 360° outlet

Model descriptions of YUY sanitary centrifugal pump

For Example

YUY - L - 3 - 16 - 1.5 - A - C



Technical parameters

Size (mm)	Power (Kw)										
	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15
A	265	300	300	320	320	375	375	425	425	545.5	545.5
B	185	243	243	243	243	283	283	343	343	373	373
C	112	125	125	140	140	160	190	216	216	356	356
D	160	205	205	210	210	233	233	330	330	430	430
E	52	73	73	76	76	79.5	79.5	75	75	76	76
F	50	61.5	61.5	70	70	83	83	91.5	91.5	120	120
G	132	150	150	162	162	170	170	200	200	234	234
H	420	460	460	505	505	570	570	660	660	810	810
I	85	38	38	81.5	81.5	110	110	105	105	111	111
J	130	153	153	163	163	173	185	215	215	255.5	255.5
K	175	260	260	310	310	360	360	430	430	540	540

YUY-F

SANITARY NEGATIVE PRESSURE PUMP



Technical parameter

Application

It is a turbine diversion centrifugal negative pressure pump. It can extract liquids in the vacuum tank under negative pressure 0.09MPa.

Specification

1T-500T, 0.75KW-75KW

Material

SUS304, SUS316L (In the selection of materials, all parts that contact the materials such as pump body, pump cover and impeller are made of SUS316L or SUS304 stainless steel.)

Standards

DIN, SMS

Impeller

Split impeller and semi-split impeller

Working condition

The sanitary negative pressure pump adopts horizontal conveying with high and low liquid levels. It has certain suction.

Surface Treatment

The liquid receiving part is subject to polishing treatment and other parts matte or sandblasting treatment.

Maximum inlet pressure

0.5MPa

Temperature range

-10℃ to +140℃ (EPDM)

Washable mechanical seal

Water pressure: Max. 0.1MPa;
Water volume: 0.25-0.5L/min

Motor

1. Depending on the configuration, the pump mainly adopts "ABB" brand high-efficiency M2BAX three-phase AC motor. The pump is designed and manufactured according to IEC60034-IE60072, conforming to CE marking requirements.
2. The explosion-proof motor is available to meet the needs in different applications.
3. With excellent electric performance, low noise and low vibration, the motor is designed to have standard protection grade of IP55 and insulation grade of grade F.
4. Frequency: 50Hz/60Hz
5. Working mode: continuous (SI)
6. Rotation speed: The standard rotation speed of the pump is 2900r/min.



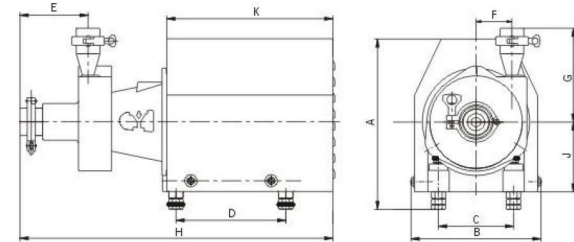
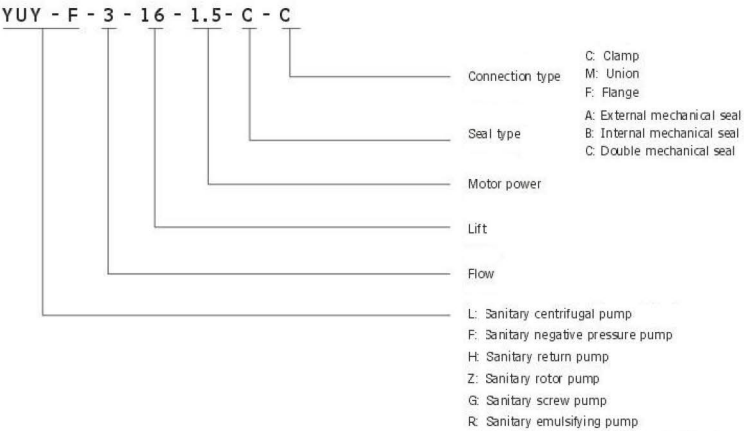
YUY-F series performance and model selection table

Model	Flow (m³/h)	Lift (M)	Power (Kw)	Inlet/outlet specification
YUY-F	3	16	0.75	51/32
YUY-F	3	24	1.5	51/38
YUY-F	3	30	2.2	51/38
YUY-F	4	18	1.1	51/38
YUY-F	5	24	1.5	51/38
YUY-F	5	36	3.0	51/38
YUY-F	10	24	2.2	51/38
YUY-F	10	36	3.0	51/51
YUY-F	10	50	5.5	51/51
YUY-F	10	60	7.5	51/51
YUY-F	15	24	3.0	51/51
YUY-F	20	24	4.0	51/51

Model	Flow (m³/h)	Lift (M)	Power (Kw)	Inlet/outlet specification
YUY-F	20	36	5.5	51/51
YUY-F	20	55	11	63/51
YUY-F	25	35	5.5	63/51
YUY-F	30	24	5.5	63/51
YUY-F	30	36	7.5	63/51
YUY-F	40	24	7.5	76/63
YUY-F	50	24	7.5	76/63
YUY-F	50	40	11	89/76
YUY-F	60	24	11	89/76
YUY-F	60	40	15	89/89
YUY-F	50	50	15	89/89
YUY-F	80	50	18.5	102/89

Model descriptions of YUY sanitary negative pressure pump

For Example



Technical parameters								
Size (mm)	Power (Kw)							
	0.75	1.1	1.5	2.2	3	4	5.5	7.5
A	300	300	332	332	375	375	425	425
B	243	243	243	243	243	243	343	343
C	125	125	140	140	160	190	216	216
D	208	208	208	215	240	240	330	330
E	137	137	137	137	137	137	137	137
F	71	71	71	71	79.5	79.5	79.5	79.5
G	169	169	169	169	187.5	187.5	187.5	187.5
H	520	520	591	591	658	658	733	733
I	38	38	81.5	81.5	110	110	105	105
J	153	153	163	163	185	185	215	215
K	260	260	310	310	360	360	430	430

YUY-H

SANITARY RETURN PUMP (SELF-PRIMING PUMP)



Technical parameter

Application

The self-priming pump is mainly used to convey materials that contain gas. Therefore, it is widely applied to suck materials in various applications where the liquid level is unstable, or even the liquid level is lower than the pump inlet, or used as a return pump in the CIP system.

Specification

5T-80T, 2.2KW-15KW

Materials

SUS316L (In the selection of materials, all parts that contact the materials such as pump body, pump cover and impeller are made of SUS316L stainless steel.) The liquid passing seal is made of EPDM.

Standard

DIN, SMS

Impeller

Shutter impeller

Shaft seal

The static ring of mechanical seal is composed of SUS316L steel with graphite and the dynamic ring is made of silicon carbide.

Surface treatment

The liquid receiving part is subject to polishing treatment and other parts matte or sandblasting treatment.

The biggest inlet pressure

0.5MPa

Temperature range

-10°C-120°C (EPDM)

Motor

1. Depending on the configuration, the pump mainly adopts "ABB" brand high-efficiency M2BAX three-phase AC motor. The pump is designed and manufactured according to IEC60034.165-0072, conforming to CE marking requirements.
2. The explosion-proof motor is available to meet the needs in different applications.
3. With excellent electric performance, low noise and low vibration, the motor is designed to have standard protection grade of IP55 and insulation grade of grade F.
4. Frequency: 50Hz/60Hz
5. Working mode: continuous (SI)
6. Rotation speed: The standard rotation speed of the pump is 1450r/min.



90° inlet and outlet



180° parallel inlet and outlet



90° inlet and outlet



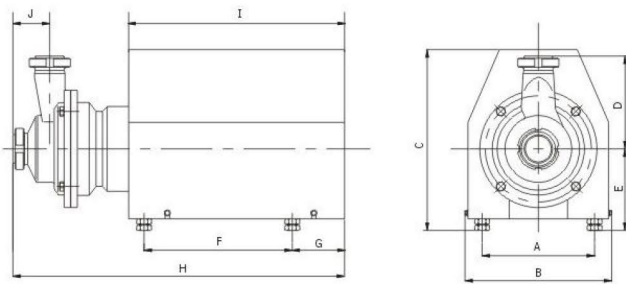
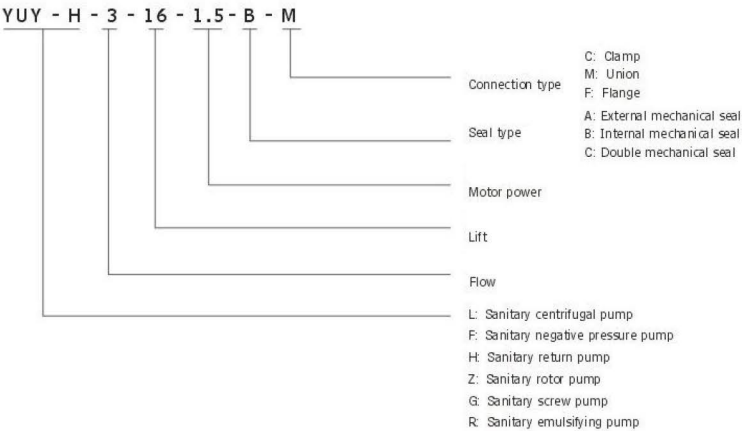
90° universal inlet and outlet



90° universal inlet and outlet

Model descriptions of YUY sanitary return pump

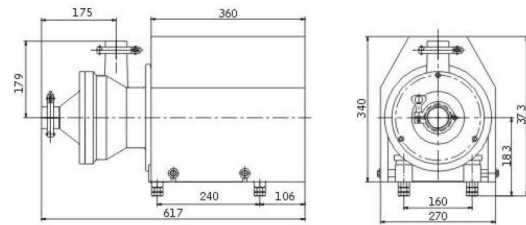
For Example



Technical parameters										
Size	A	B	C	D	E	F	G	H	I	J
Power (Kw)										
2.2	160	283	385	182	185	240	105	620	360	178
4	190	283	385	210	185	240	105	540	360	120
5.5	215	342	423	222	215	330	105	720	430	88
7.5	215	342	423	222	215	330	105	720	430	88
11	254	360	528	251.5	238	430	110	925	540	97
15	254	360	528	251.5	238	430	110	925	540	97

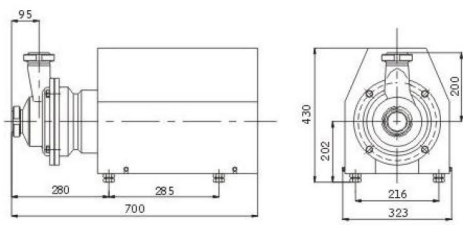
2.2Kw-10T-24m

Return pump (self-priming pump)



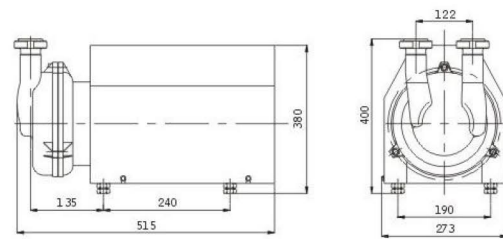
5.5/7.5Kw-25T/30T-24m

Return pump (self-priming pump)



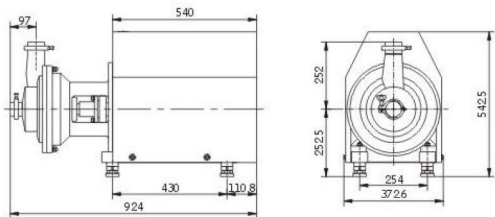
4Kw-20T-24m

Return pump (self-priming pump)



11/15Kw-40T/50T-32m

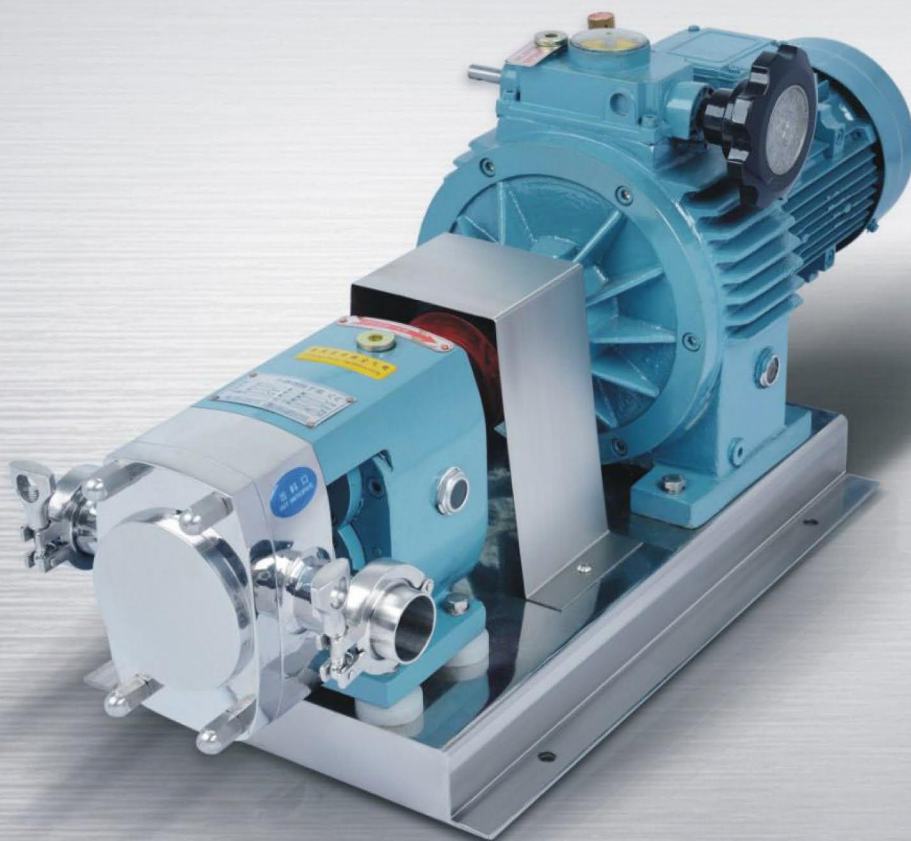
Return pump (self-priming pump)



YUY-Z



SANITARY ROTOR PUMP



Operation principle

Rotor pump is also named rotary lobe pump, three-lobe pump, sole pump, etc. When the 2 simultaneous reverse rotating rotors (with 2-4 gears) revolve, it produces suction force at the inlet (vacuum), which intakes the material delivered. The 2 rotors divide the rotor housing into many smaller parts and revolve in the sequence of a→b→c→d. When it revolves to position a, only housing I is filled with medium; when it revolves to position b, housing B encloses part of the medium; when it goes to position c, housing A encloses medium; and finally it goes to position d, then housing A, B and II are interlinked and the medium is transported to the outlet. As this process is repeated, medium (material) transported continuously.

Transmission of rotor pump: the rotor pump generally has the following transmission forms

1. Motor + fix velocity ratio speed reducer: this form is simple that the rotor speed is constant. So the flow is not adjustable. If frequency transformer is allocated, the speed adjustment can be achieved.
2. Motor + mechanical friction type stepless speed variator: the speed variation of this speed variator is realized through manual adjustment. It is characterized by safe and reliable operation, as well as stepless adjustable flow. The flaw is that it is non-automatic adjustment, which is difficult. The speed adjustment can be available only when it works.
3. Frequency conversion motor + frequency converter: automatic adjustment of rotation speed can be realized in this way, and also stepless adjustment of flow can be realized. The advantage is a higher degree of automation and easy to operate. The drawback is the higher price and smaller low-speed torque.

Application range of rotor pump

1. Food and beverages: dairy products, latex, chocolate, syrup, cheese, wort, beer, soda water, cream, concentrated fruit juice, wort and fermented liquid.
2. Fruit concentrates: pudding, jam, jelly and ketchup.
3. Paste products: fat and grease etc.
4. Cosmetics: face cream, detergent, hair style gel and essence oil etc.
5. Medicine: extract, emulsion and pill liquid etc.
6. Chemical industry: dye, fat, solvent, resin and polymer etc.
7. Others: candy industry, baking industry and chemical industry etc.

Pump Head Structure



Heat insulation type

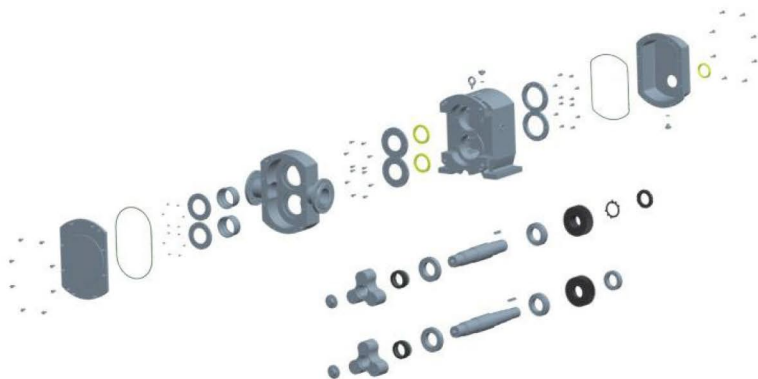


Universal type

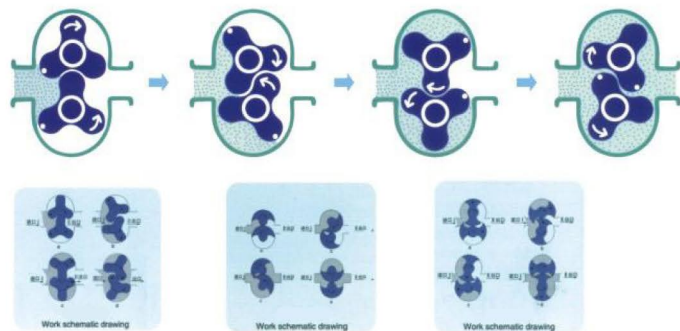


Special type

Rotor Pump Exploded View



Rotor Pump Work Simulation Diagram



Rotor Vane Quantity Selection Reference

Single impeller

Used to transfer medium with a little large grains, its unique shape and curve type make it have a advantage in the transportation of large particle materials and can avoid the large particles damage effectively.



Double impeller

Used to transfer materials or fillings with particles and it is with low damagerate. This pump is suitable for transferring materials with poor liquidity or containing Particles.



Tri - impeller

This is commonly type, the capacity and performance is better than the single and double impeller.



Multi - impeller

When impeller quantity beyond three, the capacity will decrease when impeller increase. Multi - impeller has high stability while using, but easy to damage grain medium.



Butterfly rotor pump

As it adopts the butterfly rotor, in addition to having the features of common rotor pumps, it also has certain advantages when conveying materials of high viscosity and those containing large granules, and is suitable for effective conveying of very viscous materials.

Single butterfly curve rotor pump (granule rotor pump):

This pump is specially designed and manufactured for conveying materials that contain large granules. Its unique shape and curve form enable it to have incomparable advantages over other pumps when conveying materials that contain large granules. During the conveying of materials, it is able to effectively prevent the granules from being broken. It is a preferred pump for conveying materials that contain granules.

Technical parameters

Product model	Displacement per hundred revolutions (L)	Suggested speed adjusting range (rpm)	Corresponding flow (L/H)	Motor power (KW)
YUY-Z-3	3	200-500	300-800	0.55
YUY-Z-6	6	200-500	650-1600	0.75
YUY-Z-8	8	200-500	850-2160	1.5
YUY-Z-12	12	200-500	1300-3200	2.2
YUY-Z-20	20	200-500	2100-5400	3
YUY-Z-30	30	200-400	3200-6400	4
YUY-Z-36	36	200-400	3800-7600	4
YUY-Z-52	52	200-400	5600-11000	5.5
YUY-Z-66	66	200-400	7100-14000	7.5
YUY-Z-78	78	200-400	9000-18000	7.5
YUY-Z-100	100	200-400	11000-22000	11
YUY-Z-135	135	200-400	15000-30000	15
YUY-Z-160	160	200-400	17000-34000	18.5
YUY-Z-200	200	200-400	21600-43000	22

Note: The flow range in the table refers to the data measured when the medium is water.

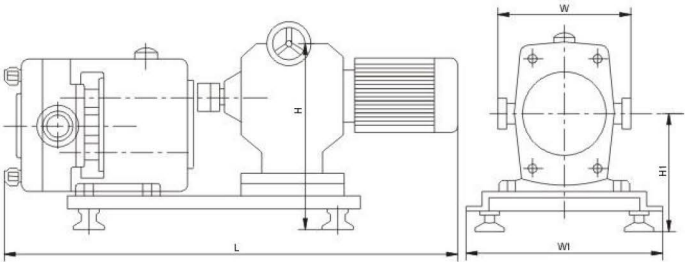
The pump adopts stepless speed variator or frequency converter for speed adjustment within the range of 200~900rpm.

When the pump conveys strong liquids of high viscosity, the motor power should be increased.

For media with relatively poor flowability, it is suggested that the pump with matching flow should be used for conveying at the inlet.

You will not be notified of any modifications to the data in the table. The parameters of the real products shall prevail.

Outline dimensions



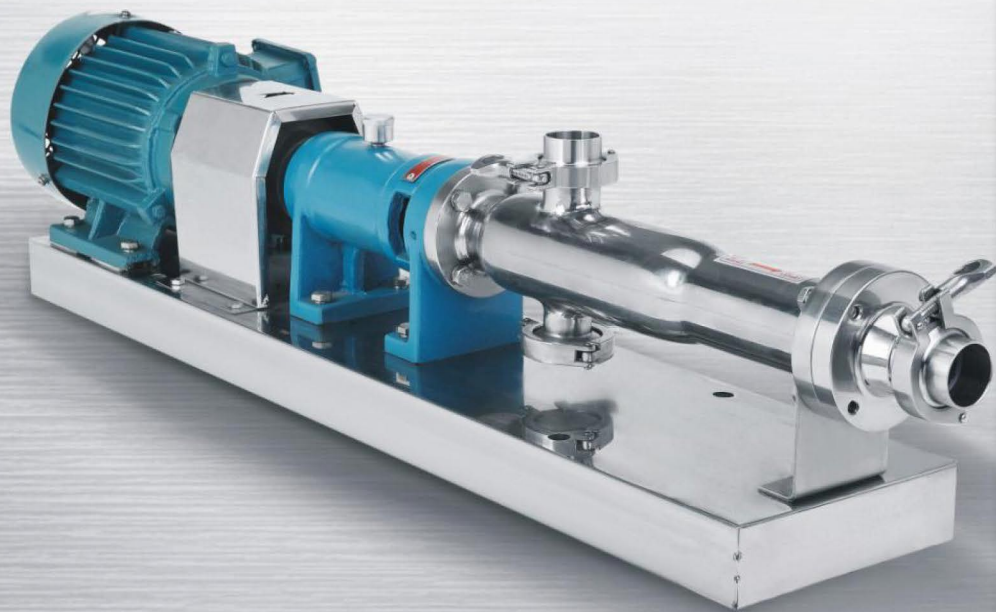
Installation diagram of rotor pump

Technical parameters

Product model	Motor power (KW)	Connection size	L	H	H1	W	W1	Connection type
YUY-Z-3	0.55	¢ 25 × 1.5	710	290	150	150	240	Clamp Thread Flange
YUY-Z-6	0.75	¢ 25 × 1.5	780	390	170	190	240	
YUY-Z-8	1.5	¢ 32 × 1.5	850	400	170	190	280	
YUY-Z-12	2.2	¢ 38 × 1.5	980	450	185	220	330	
YUY-Z-20	3	¢ 38 × 1.5	1000	450	190	250	330	
YUY-Z-30	4	¢ 42 × 1.5	1050	480	220	270	350	
YUY-Z-36	4	¢ 50.8 × 1.5	1100	490	220	270	350	
YUY-Z-52	5.5	¢ 63.5 × 1.5	1250	580	260	270	480	
YUY-Z-66	7.5	¢ 63.5 × 1.5	1350	600	260	270	480	
YUY-Z-78	7.5	¢ 76 × 2	1260	600	295	370	480	
YUY-Z-100	11	¢ 76 × 2	1320	670	295	370	480	
YUY-Z-135	15	¢ 89 × 2	1500	670	295	370	480	
YUY-Z-160	18.5	¢ 102 × 2	1500	720	320	420	560	
YUY-Z-200	22	¢ 102 × 2	1500	720	320	420	560	

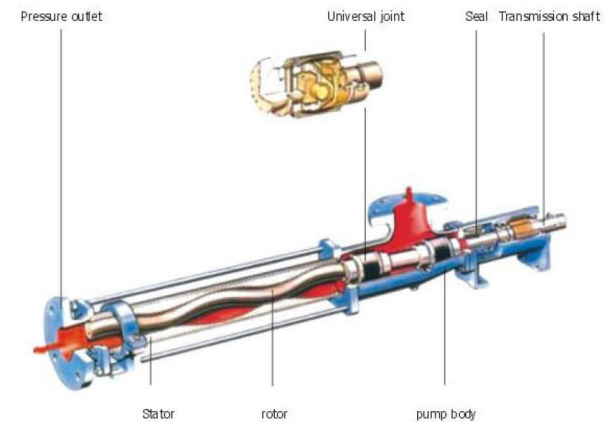
YUY-G

SANITARY SINGLE-SCREW PUMP



YUY-G SANITARY SINGLE-SCREW PUMP

SUS304/SUS316L



Use

The single-screw pump is a new type of pump working according to the rotation engagement volume type principle. The main working parts are eccentric screw (rotor) and fixed sleeve (stator). Due to special geometrical shapes of the two parts, individual sealing cavities are formed. The media are axially and evenly pushed to flow with low internal flow speed. The volume remains unchanged and the pressure is stable. Therefore, no eddy current and stirring will occur. The output pressure of each stage of pump is 0.6MPa, the lift is 60m (clear water) and the self suction height is generally above 6m. As the stator is made of various elastic materials, this kind of pump is suitable for conveying fluids of high viscosity, and can also be used for conveying materials that contain hard suspended granules or fibrous media. It has prominent advantages over other common pumps. Flow is directly proportional to rotation speed, and the former can be adjusted through adjusting the latter.

YUY-G SANITARY SINGLE-SCREW PUMP

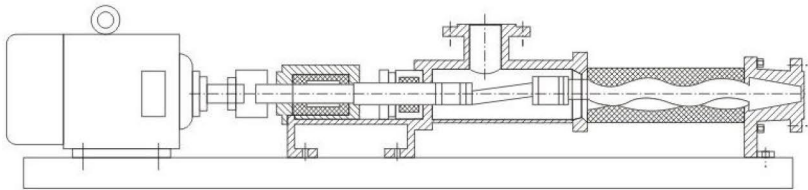
RUIPAI MACHINERY, MARKER OF HEALTH EQUIPMENT
Material: 304/316L



Screw rod pump



Rotor of first level, second level



Technical parameters										
Project	Model	G- 0.5	G- 1.0	G- 1.5	G- 2.0	G- 3.0	G- 5.0	G- 7.0	G- 8.0	G- 9.0
Flow(T/h)		0.5	1.0	1.5	2.0	3.0	5.0	7.0	9.0	13.0
Power (Kw)		0.37	0.55	0.75	1.10	1.50	2.20	3.00	4.00	5.50
Rotation speed (rpm)		1400	960	960	960	960	960	960	960	960

YUY-R Sanitary emulsifying pump

Product introduce

YUY-R series In - Line high shear homogeneous pump is used in online sustained or cyclic processing elaborate materials in the narrow chamber, it is with 1 - 3 groups of coupling double rotators and stators The materials are sheared by the equal probability when through the work chamber and the granule size reduced. Upgrade the effect. On - line eliminating the quantity difference between different batches, make sue the constant quality. Stator and rotor module combination make it suitable for different operating condition requirement Online measur - ement of mixing design makes the intensive production come true it has short distance low - lift transport function.

Pipeline type single - stage emulsion pump is efficient, rapid, uniform to a phase or multiple phases (liquid, solid, gas) into another immiscible continuous phase (usually liquid) process equipment, But in typically each phase is immiscible. When the external energy input, a two material reorganization to become homogeneous. Pipeline type single - stage emulsion pump with high speed rotation of the rotor generated by high tangential velocity and high frequency mechanical effect brought about by strong momentum, so that materials in the stator rotor, narrow gap by the strong mechanical and hydraulic shear, centrifugal extrusion, liquid layer friction, collisions and turbulence integrated action, forming a suspension (solid / emulsion (liquid), liquid / liquid) and foam (gas / liquid). Horizontal pipeline type single - stage emulsion pump so that the insoluble solid phase, liquid phase, gas phase in the corresponding ripe technology and proper amount of additive joint action falls, instant fine dispersed emulsion, emulsion pump through frequency move in circles, finally get a stable high-quality products.



Inline High-shear homogenizing pump pumps should be installed in front of