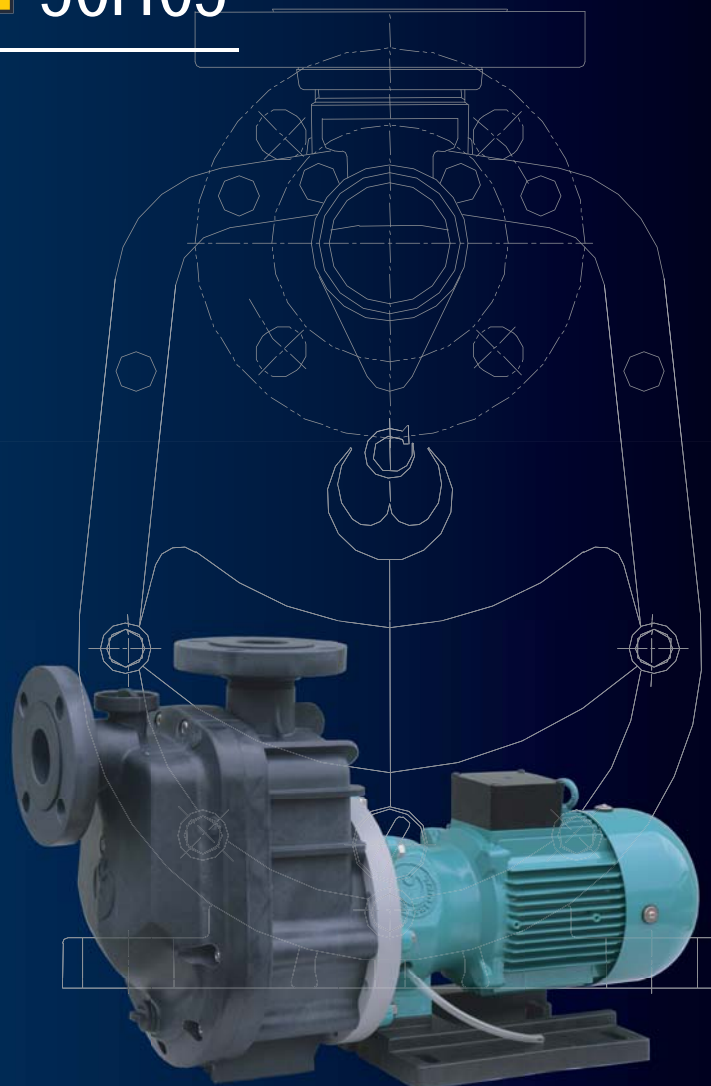
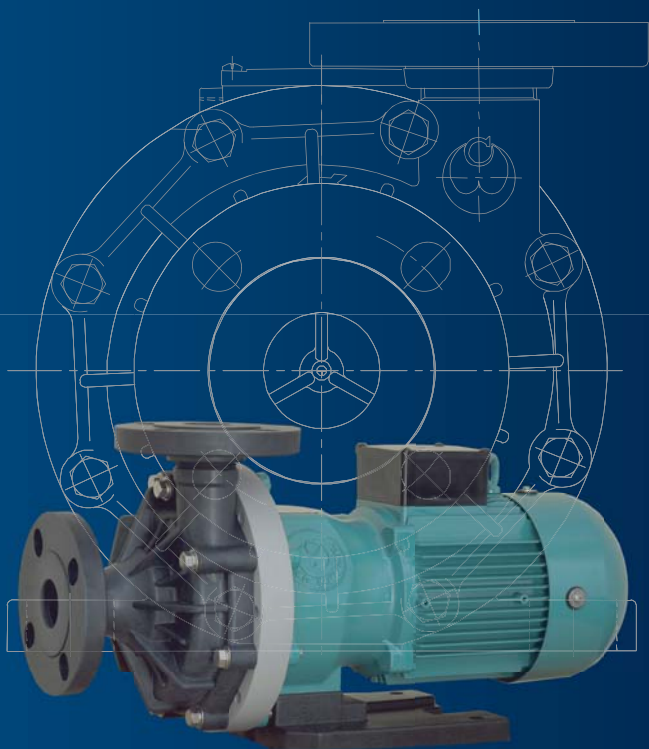


GSM series

Non-self-priming mechanical seal pump

GVM series

Self-priming mechanical seal pump



< Model description >

YD-2500GSM1-GP-SD51

Dis. bore

25 : 25A
40 : 40A
50 : 50A

Motor output

00 : 0.4kW
01 : 0.75kW
02 : 1.5kW

Model

GSM (F) : Non-self-priming

Motor type

1 : IE1
3 : IE3

Main material

GP : GFR PP
CF : CFR ETFE

Seal material

S : Standard (Carbon)
H : Screw type (PTFE)

Frequency

5 : 50Hz
6 : 60Hz

O-ring

D : FPM

S.G.

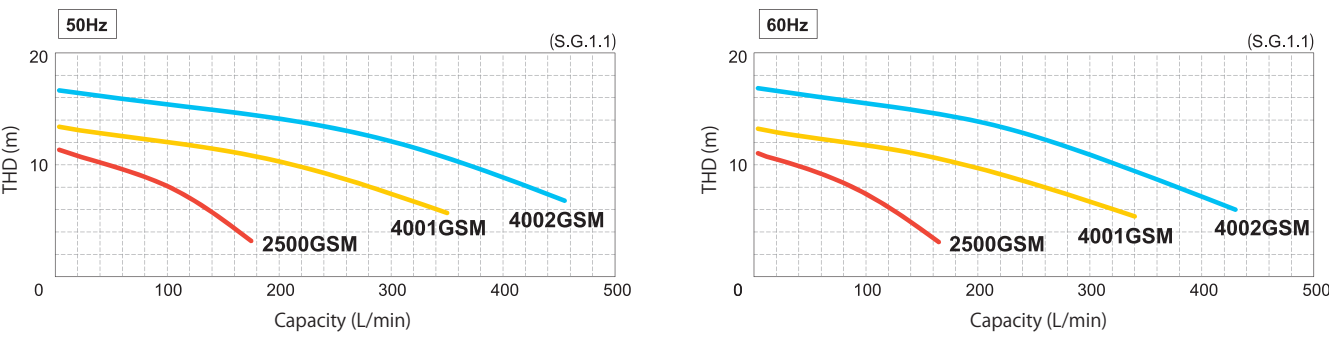
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※ Please consult with us regarding S.G. other than above.

< Standard specification >

Model	Bore (mm)		Performance: Total head - Capacity (m-L/min)	S.G.	Power (kW)	Weight (kg)	Resistat temperature (°C)
	Suction	Discharge					
YD - 2500GSM (F) 1	25	25	8-40	1.1	0.4	18.5	50
YD - 4001GSM (F) 3	40	40	8-110	1.1	0.75	122.5	50
YD - 4002GSM (F) 3	50	40	10-200	1.1	1.5	29	50

< Performance curve >



< Use > It is suitable to transfer waste liquid with a few slurry!

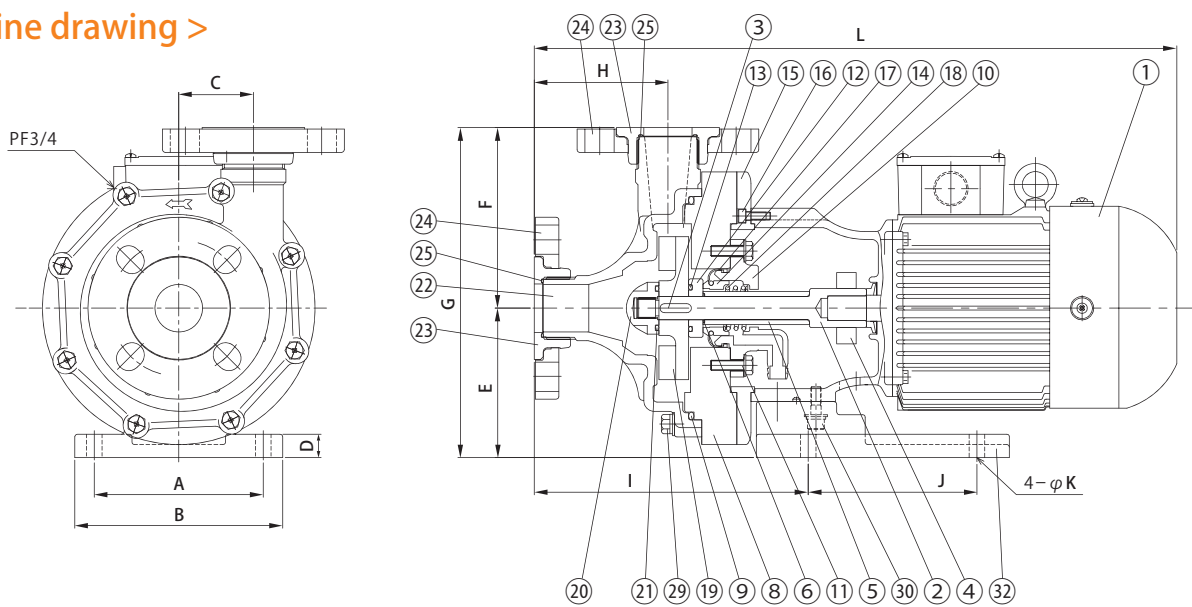
- For waste liquid
- To transfer liquid to a balancing tank or final treatment tank

Feature of Non-self-priming mechanical seal pump "GSM (F)"

Our mechanical seal pump (S series) usde for 30 and over years is full-model changed for easier-to-use. Our original mechanical seal without outer cooling water is adopted and it is possible to select the material of the wet parts kit depending on chemical liquid. The cose and lead time are reduced by sharing the parts for our manget drive pump (GS series).

- The open type impeller is adopted and suitable to transfer waste liquid with a few slurry.
- The periodical maintenance of the sealing parts brings you continued satisfaction.
- It is possible to select the material of the casing and mechanical seal according to liquid.

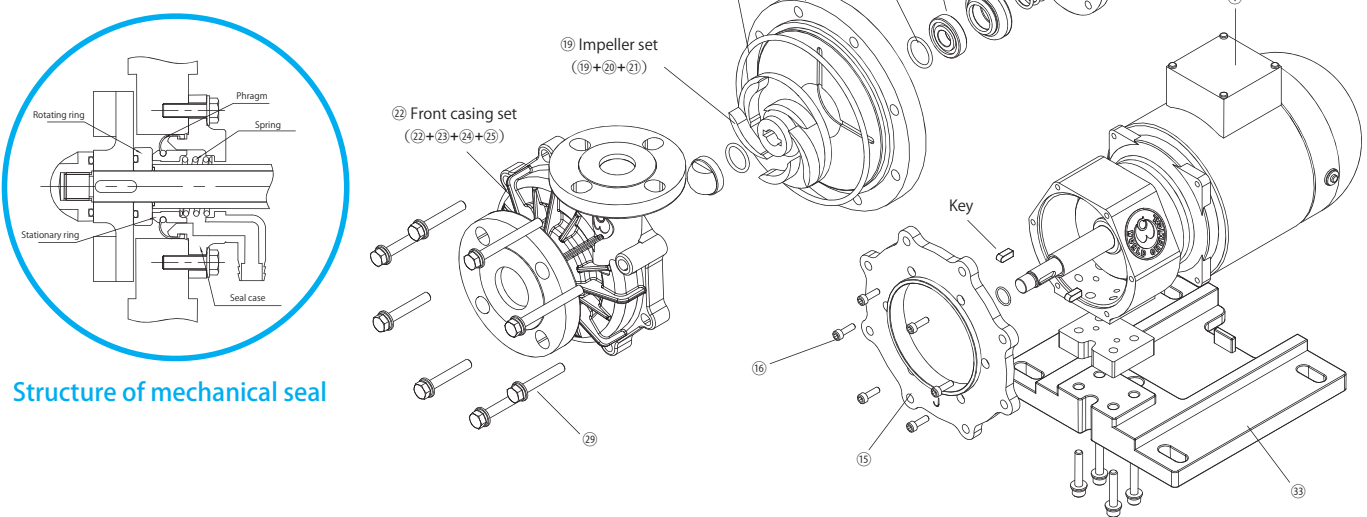
< Outline drawing >



< Dimension >

Model	A	B	C	D	E	F	G	H	I	J	K
2500GSM (F) 1	130	160	18	255	70	325	167	301.5	130	Φ 12	559.5
4001GSM (F) 3	130	160	18	276	84	360	190	332	130	Φ 12	619
4002GSM (F) 3	208	260	20	296	93	389	206	333	200	36-14	667

< Exploded view >



Structure of mechanical seal

< Parts list >

No.	Part name	Material		Q'ty	No.	Part name	Material		Q'ty
		GSM	GSMF				GSM	GSMF	
①	Motor with bracket	FC200+Aluminum frame motor		1	⑮	Rear casing support	FC200		1
②	Pump shaft	SUS306		1	⑯	Hex. socket head cap bolt	SUS304 (M6*12)		6
③	Key	SUS316		2	⑰	Phragm	Acid-proof fluoro-rubber		1
④	Slit collar	S35C		1	⑱	Spring	Hastelloy		1
⑤	Shaft sleeve	HT. PVC		1	⑲	Impeller	HT. PVC		1
⑥	O-ring for shaft sleeve	FPM		1	⑳	Impeller nut	HT. PVC		1
⑧	Back cover	PVC		1	㉑	O-ring for impeller nut	FPM		1
⑨	O-ring for back cover	FPM		1	㉒	Front casing	GFR PP	CFR ETFE	1
⑩	Seal case	Diallyphthalate/HT. PVC		1	㉓	Lap joint	GFR PP	CFR ETFE	2
⑪	Hex. bolt (SW, W)	SUS304 (M8*20)		4	㉔	Loose flange (JIS10K)	GFR PP	GFR PP (Black)	2
⑫	Rotating ring	Alumina ceramics		1	㉕	O-ring for lap joint	FPM		2
⑬	O-ring for rotating ring	FPM		1	㉖	Hex. bolt (SW, W)	SUS304 (M8*60/85)		8
⑭	Stationary ring	Carbon/PTFE		1	㉗	Pump base	GFR PP		1

< Model description >

YD-2500GVM1-GP-SD51

Dis. bore

25 : 25A
40 : 40A
50 : 50A

Motor output

00 : 0.4kW
01 : 0.75kW
02 : 1.5kW

Model

GVM (F) : Self-priming

Motor type

1 : IE1
3 : IE3

Mainmaterial

GP : GFR PP
CF : CFR ETFE

Seal material

S : Standard (Carbon)
H : Screw type (PTFE)

O-ring material

D : FPM

Frequency

5 : 50Hz
6 : 60Hz

S.G.

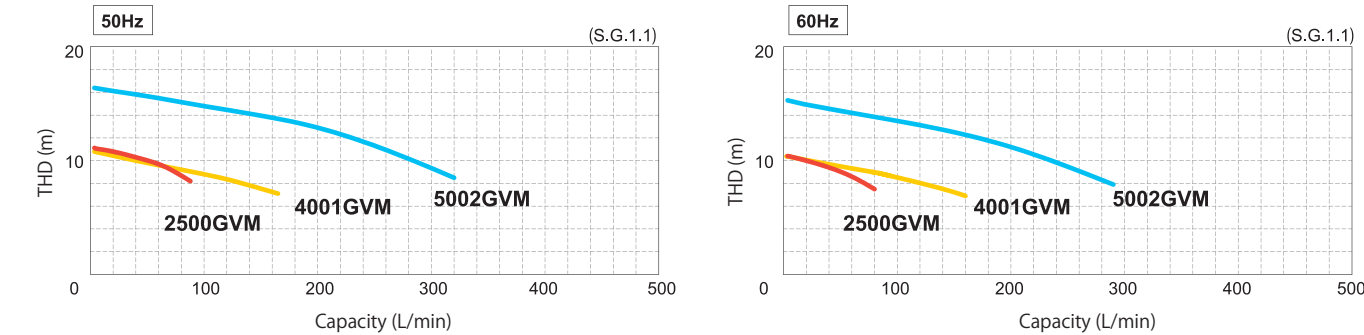
1 : 1.1

※ Please consult with us regarding S.G. other than above.

< Standard specification >

Model	Bore (mm)		Performance: Total head-Capacity (m_L/min)	S.G.	Power (kW)	Weight (kg)	Resistat temperature (°C)
	Suction	Discharge					
YD - 2500GVM (F) 1	25	25	50 / 60Hz 8-40	1.1	0.4	18.5	50
YD - 4001GVM (F) 3	40	40	8-110	1.1	0.75	22.5	50
YD - 4002GVM (F) 3	50	40	10-200	1.1	1.5	29	50

< Performance curve >



< Use > It is suitable to transfer waste liquid with a few slurry!

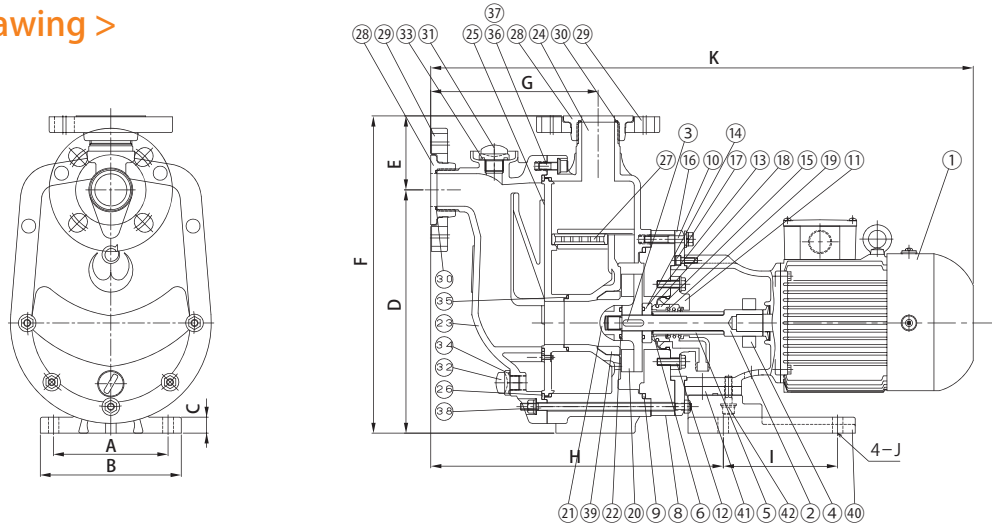
- For waste liquid
- To transfer liquid to a balancing tank or final treatment tank

Feature of Self-priming mechanical seal pump “GVM (F)”

Our mechanical seal pump (SV series) usde for 30 and over years is full-model changed for easier-to-use. Our original mechanical seal without outer cooling water is adopted and it is possible to select the material of the wet parts kit depending on chemical liquid. The cose and lead time are reduced by sharing the parts for our manget drive pump (GV series).

- The open type impeller is adopted and suitable to transfer waste liquid with a few slurry.
- The periodical maintenance of the sealing parts brings you continued satisfaction.
- It is possible to select the material of the casing and mechanical seal according to liquid.
- GVM(F) series always remain self-priming water in it. It has the self-priming ability to pump liquid up from a pit. (Maximum 3.5m)

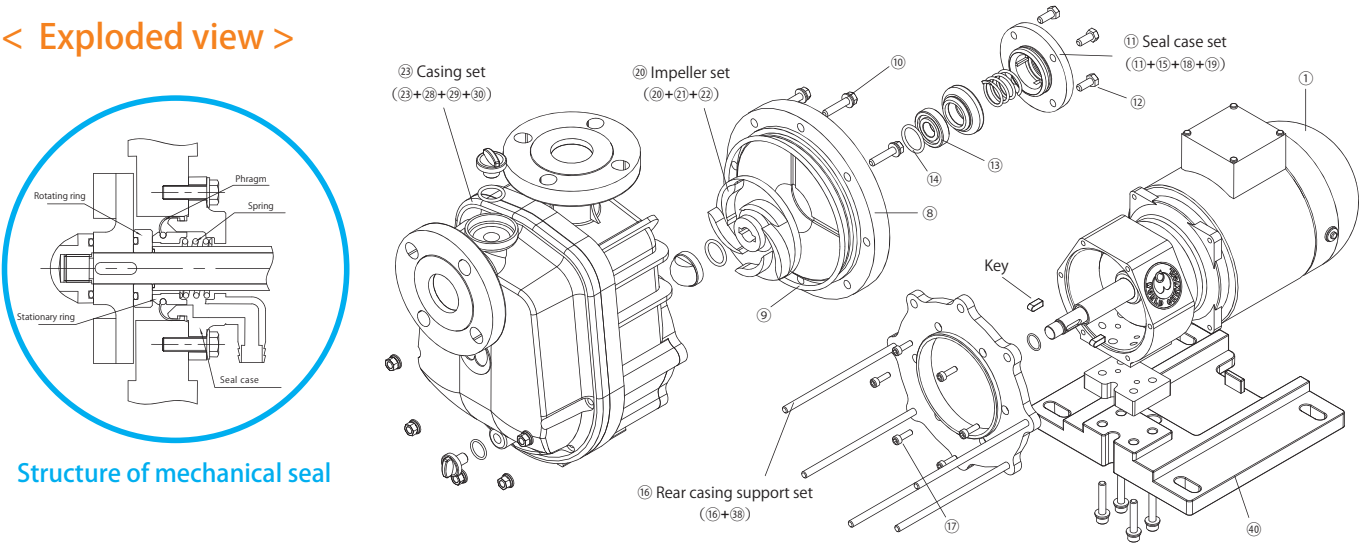
< Outline drawing >



< Dimension >

Model	A	B	C	D	E	F	G	H	I	J	K
2500GVM (F) 1	130	160	18	255	70	325	167	301.5	130	φ 12	559.5
4001GVM (F) 3	130	160	18	276	84	360	190	332	130	φ 12	619
5002GVM (F) 3	208	260	20	296	93	389	206	333	200	36-14	667

< Exploded view >



< Parts list >

No.	Part name	Material		Qty	No.	Part name	Material		Qty
		GVM	GVMF				GVM	GVMF	
①	Motor with bracket	FC200+Aluminum frame motor		1	②③	Suction casing	GFR PP	CFR ETFE	1
②	Pump shaft	SUS304		1	②④	Discharge casing	GFR PP	CFR ETFE	1
③	Key	SUS316		2	②⑤	Separating board	GFR PP	CFR ETFE	1
④	Slit collar	S35C		1	②⑥	Center packing	FPM		1
⑤	Shaft sleeve	HT. PVC		1	②⑦	Perforated plate	GFR PP	CFR ETFE	1
⑥	O-ring for shaft sleeve	FPM		1	②⑧	Lap joint	GFR PP	CFR ETFE	2
⑧	Back cover	PVC		1	②⑨	Loose flange (JIS10K)	GFR PP	CFR ETFE	2
⑨	O-ring for back cover	FPM		1	③①	O-ring for lap joint	FPM		2
⑩	Hex. bolt (with SW, W)	SUS304 (M8*50)		3	③①	Priming water plug	GFR PP	CFR ETFE	1
⑪	Seal case	Diallyphthalate/HT. PVC		1	③②	Drain plug	GFR PP	CFR ETFE	1
⑫	Hex. bolt (with SW, W)	SUS304 (M8*20)		4	③③	O-ring for priming water plug	FPM		1
⑬	Rotating ring	Alumina ceramics		1	③④	O-ring for drain plug	FPM		1
⑭	O-ring for rotating ring	FPM		1	③⑤	O-ring for inclusion	FPM		1
⑮	Stationary ring	Carbon/PTFE		1	③⑥	Hex. socket head cap bolt(SW,W)	SUS304 (M8*25)		10
⑯	Rear casing support	FC200		1	③⑦	Hex. socket head cap bolt(SW,W)	SUS304 (M8*35)		4
⑰	Hex. socket head cap bolt	SUS304 (M8*12)		6	③⑧	Stud bold (SW, W, Nut)	SUS304		5
⑱	Phragm	Acid-proof fluoro-rubber		1	③⑨	Ring holder	HT. PVC		1
⑲	Spring	Hastelloy		1	④①	Base	GFR PP	CFR ETFE	1
⑳	Impeller	HT. PVC		1	④②	Base biscuit	FC200		1
㉑	Impeller nut	HT. PVC		1	④③	Hex. socket head cap bolt(SW,W)	SUS304 (M8*35)		4
㉒	O-ring for impeller nut	FPM		1					

Operational precautions

1) Prohibition of dry running

The mechanical seal is cooled by circulation of the pumped liquid.
If the pump is operated without liquid inside, it may be damaged by evolution of heat.
By any chance, when the pump run dry, do not pour liquid into and leave it for more than 1 hour.
If liuqid suddenly goes inside, the heated sliding parts may be damaged by rapidly cooled and beyond repair.

2) Temperature range of liquid in use

The liquid’s vapor pressure, consistency or corrosivity are changed depending on the liquid temperautre.
By the consideration of them, use the pump with enough performance.
● Temperature range of liquid in use: 0~50℃

3) Intermittent operation

Start/stop the pump 6 times or less per hour.
More frequent operation may cause the motor and pump failure by the load to them.

4) Minimum flow rate

Operate the pump that the capacity is over the figure as follows.

Model	Operational min. flow rate
2500・4001GSM/GVM	10L/min
4002GSM/5002GVM	20L/min

Installing / piping precautions

GSM series

- If a large amount of air goes into during operation, it may cause the pump damage by pumping failure.
- Set the suction inlet of the pump 50cm and over the liquid surface.
- Do not make air pocket in the piping nor install the piping up and down.
- Install the piping to the pump on the 1/100 and over up grade.
- Use the same size pipinge at the suction side. If different, make the top level by using the eccentric one-sided pipe.

GVM series

- If air goes into the piping joint, pumping failure occurs and causes the pump damage.
- It is the state of the negative pressure in the piping at the time of the self-priming operation. If air goes into for the piping joint failure, liquid does not go into and the pump may be damaged becасue of pump-ing failure.
- Use the suction pipe whose size is the same as the suction bore of the pump.
If the piping is bigger than the pump’s size, the self-priming ability may be reduced and failure.
- Set that the OFF level, which is between the end of the suction pipe to liquid surface, is more than double than the suction pipe bore. If it is operated less than this, it causes dry running by mixing up the air.

Other precautions

- Install a strainer at the sucion pipe to prevent large dust or foreign objects being mixed into.
However, clean the strainer periodically to minimize loss resistance.
- It is recommended to install a check valve on the rising pipe at the discharge side to prevent water hammer at time like follows. Additionally, install a bypass pipe for air release underneath.
 - The discharge pipe is long and the head is 10m and more.
 - The end of the discharge pipe is set 9m and more higher than the liquid level in the suction tank.
 - The piping condition is that 2 and more pumps are set in parallel.
- Install bending parts or expansion joints not to leak liquid by the pump deformation from heat expansion due to the liquid temperature.
- Do not impact the pump because the main inside parts are made of plastic.

Prohibition of uneven and overtightening (GSM/GVM series both)

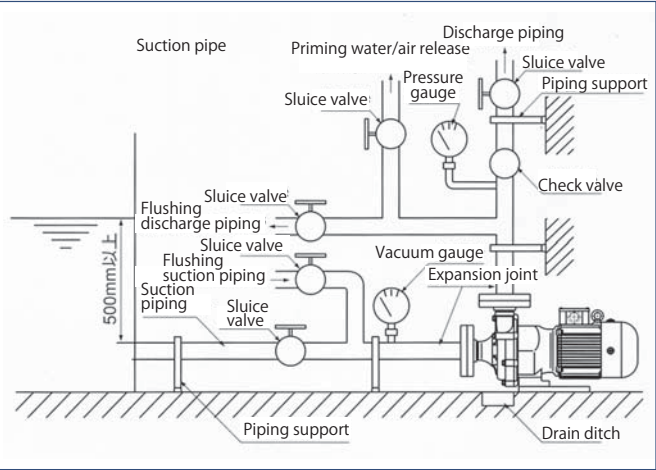
- Align the surface of the piping flange with the pump flange and do not tighten bolts too much.
- Match the installation dimensions. If not, the pump casing may be damaged. Uneven tightening causes the liquid leakage from the packing, so tighten bolts diagonally and evenly.

Prohibition of loading piping (GSM/GVM series both)

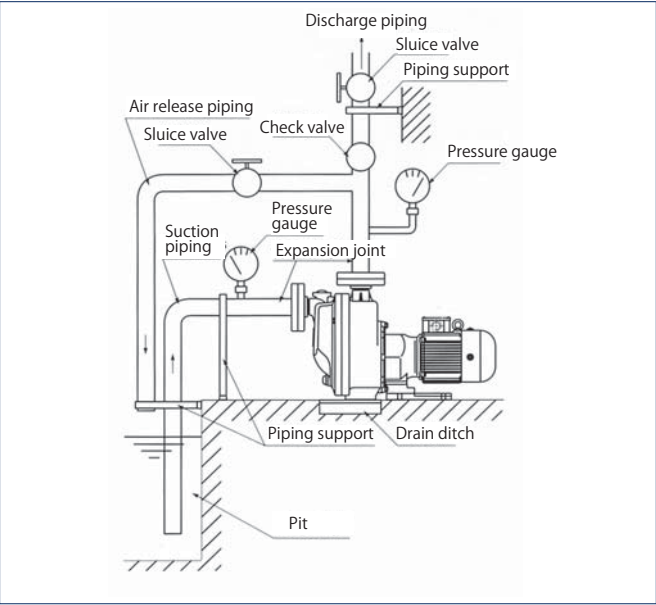
- Completely recieve the piping load with the piping support.
- If the liquid temperature is high (40℃ and more), install bendings and expansion joints to the piping not to apply a load by heat expansion of pipes.
- Prevent to use metal pipes as much as possible and use plastic ones.

Example of piping

GSM series



GVM series





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Challenging the Liquid Transfer Technology,

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■ Note:

