



Comprehensive Manufacturer of Environmental Equipment
Challenging the Liquid Transfer Technology,

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■ Note:

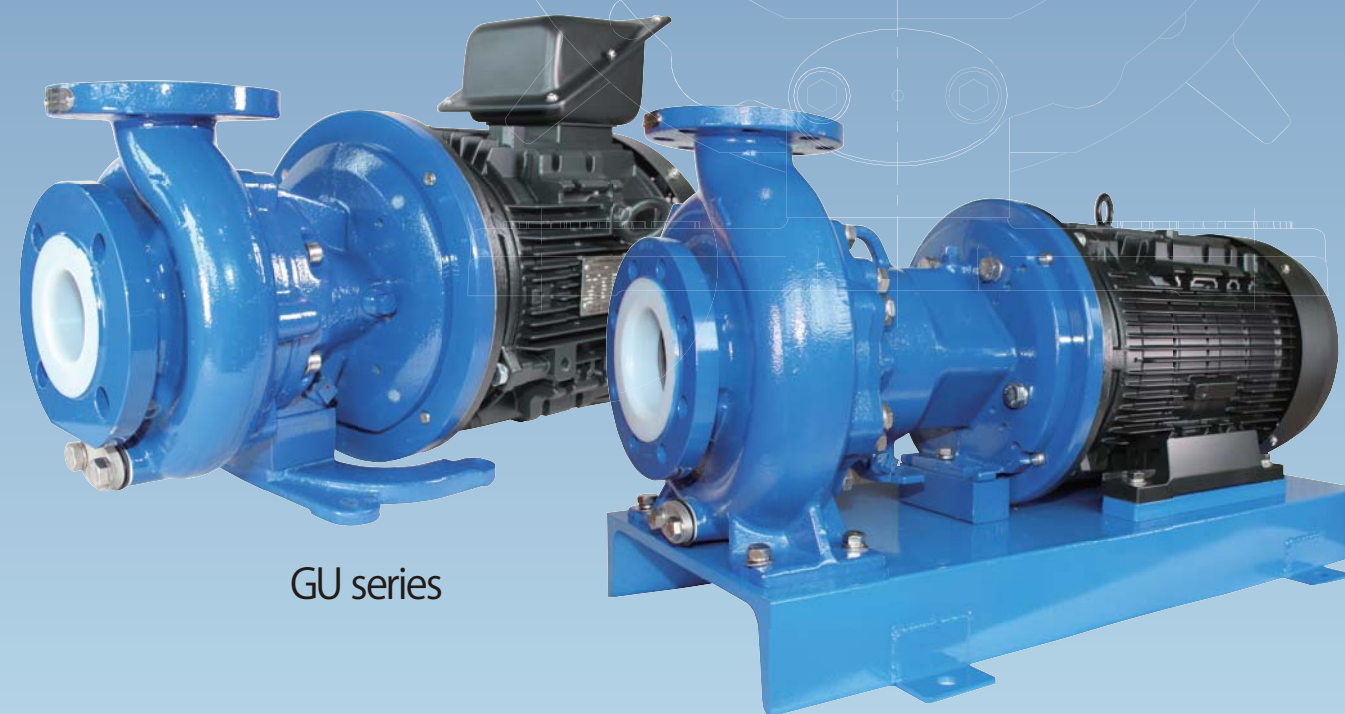


< Chemmy >

GU series

GT series

High efficient & big magnet drive pump CHEMIFREE



GU series

GT series



World Chemical Co., Ltd.

"High efficient / performance big magnet drive pump" transfers various chemical liquid or waste water.

※ Only GT series is possible to be used for slurry/sludge.

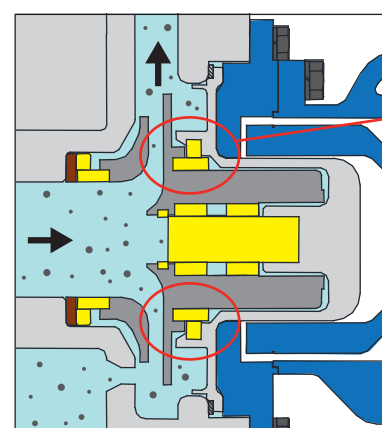
<Use>

- ① To circulate or spray liquid for print wiring board or LC.
- ② To transfer liquid to a chemical tank.
- ③ To transfer liquid with slurry/sludge. (Only GT series)
- ④ To transfer various liquid.



<Feature>

● Resistant to slurry/sludge! (Impeller wearing system) GT series



Impeller wearing

The size of permeable slurry to the rear casing by the impeller wearing is only less than 0.127 mm!

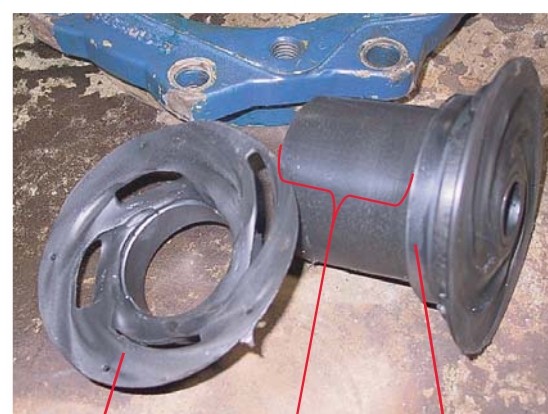
The abrasion of the shaft and bearing is prevented at a maximum!

Sludge transfer assessment test

A mechanical seal pump user, who replaces the mechanical seal once a week for sludge, could use the pump for nine months



Carbon slurry



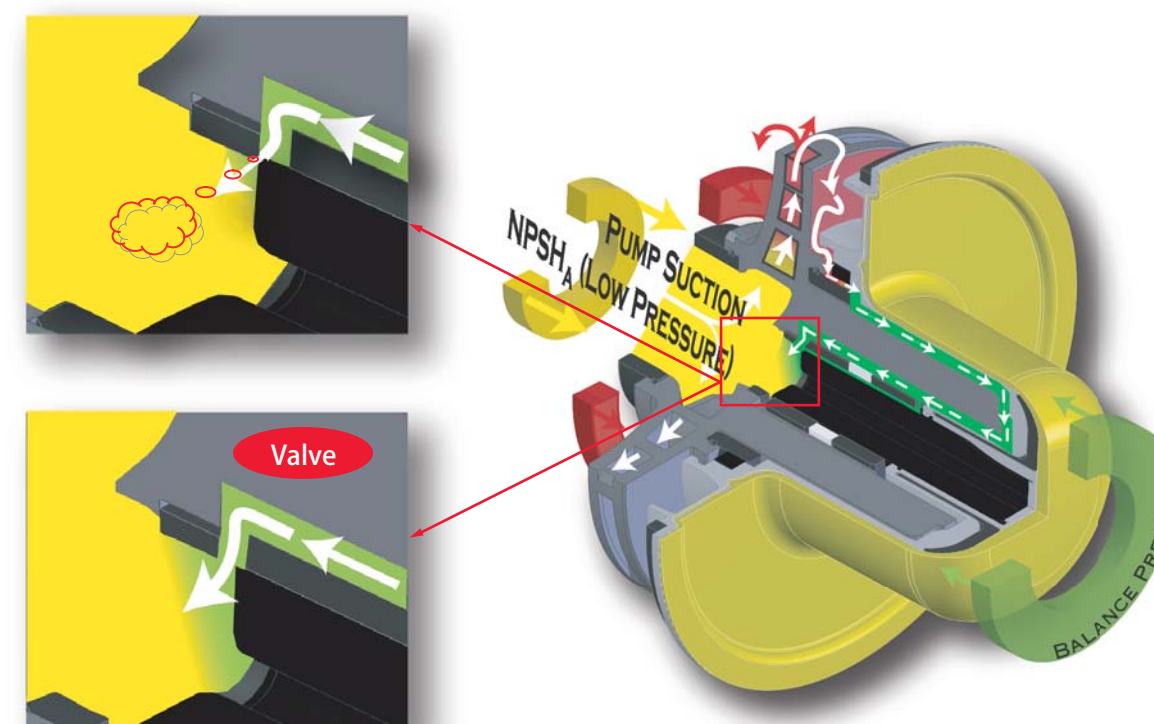
Wearing

The impeller was abraded severely by slurry.

The damage of the impeller magnet can is almost nothing for the wearing.

● High efficiency, Energy saving! (Thrust balance system)

GT series



- Long life of sliding parts
- High efficiency for the motor load reduction

When the impeller moves to the suction side at the start of pump, the ditch (valve) on the bearing is opened and abrasion is reduced to keep the balance of positive/negative pressure constant.

● Chemical-resistant improvement (Impeller can/Double capsule system)

GU series
GT series



Suitable for pervious liquid
The double structure of the impeller magnet can prevents corrosion and expansion of the inner magnet by liquid penetration.

The inner magnet is firstly lined by stainless steel and then secondly by corrosive-resistant plastic.

<Model description>

YD-2502 GU3 TF-KP 51-125

Discharge bore

Output

Model

Main material

Gasket material

S.G.

Bearing material

Frequency

Impeller dia. (mm)

25 : 25A
40 : 40A
50 : 50A
65 : 65A
80 : 80A
100 : 100A

01 : 0.75kW
02 : 1.5kW
03 : 2.2kW
05 : 3.7kW
07 : 5.5kW

10 : 7.5kW
15 : 11kW
20 : 15kW
25 : 18.5kW
30 : 22kW

GU
GT

TF : ETFE
PA : PFA

P : FEP+FKM (Std.)
E : EPDM (Option)

0 ~ 2.0
G : 2.0 and over

SiC

5 : 50Hz
6 : 60Hz

※ The content is subject to change without notice for the production improvement.

<Exploded view>

GU

Motor adapter

Outer magnet

Shaft

Gasket

Bearing

Rear casing support

Rear casing

Impeller

Casing

• The common base supports the whole pump.

• All FC parts including the outer magnet is painted by epoxy polyimide as the first layer and polyurethane as the second layer. It is excellent at chemical and UV resistance.

• Made of SiC
• Antirotation key and falling off grip are adopted

• Standard : FEP + FKM
(High chemical-resistant gasket that FKM is covered with FEP)
• Option : EPDM

• SiC

• Quick-release without disassembling WPK for the back-pull-out structure

• High strenght & pressure, impact resistant
• Aramid Kepler housing is adopted
• Material : CFR ETFE, PFA

• Casting SiC mouth ring
• Corrosion/penetrate-resistant double capsule is adopted for the inner magnet
• Material : CFR ETFE, PFA

• Ductile cast iron is lined with natural ETFE or PFA
• Completely closed suction

GT

Motor adapter

Outer magnet

Shaft

Gasket

Bearing

Rear casing support

Rear casing

Impeller

Casing

• The common base supports the whole pump.

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• High strenght & pressure, impact resistant
• Aramid Kepler housing is adopted
• Material : CFR ETFE, PFA

• Casting SiC mouth ring
• CFR ETFE impeller
• Corrosion/penetrate-resistant double capsule is adopted for the inner magnet

• Ductile cast iron is lined with natural ETFE or PFA
• Completely closed suction

Impeller

Casing

Conventional product

High efficient, Low NPSHr
Totally closed impeller

Conventional product

High efficient, Low NPSHr
Totally closed suction shape

Note The product is list controlled by Japanese government. When exporting, should be permitted by Minister of Economy, Trade and Industry on the basis of Export Trade Control Order.

<Standard specification>

GU ETFE PFA (S.G.1.0)

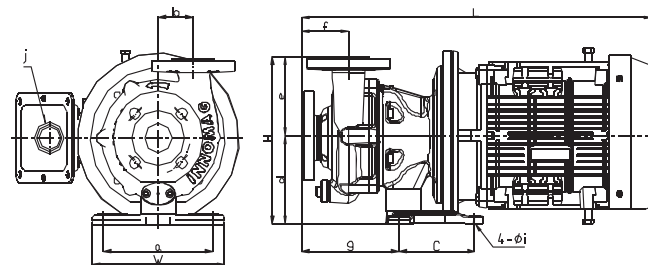
Model	Bore (mm)		Out put (kW)	50Hz	60Hz	Weight (kg)
	Suc.	Dis.		Max. head - Max. capacity (m) — (L/min)	Max. head - Max. capacity (m) — (L/min)	
YD-2501GU3	40	25	0.75	15.9—280	15—280	43.5
YD-2502GU3			1.5	19.6—310	17.2—300	49.5
YD-2503GU3			2.2	27.5—370	26.5—360	54
YD-2505GU3			3.7	32—390	40.8—440	66
YD-4001GU3			0.75	13.0—330	17.0—370	48.5
YD-4002GU3	50	40	1.5	22.6—480	22.9—430	54.5
YD-4003GU3			2.2	27.0—530	27.9—480	59
YD-4005GU3			3.7	33.1—550	36—580	71
YD-4007GU3			5.5		48.8—660	94
YD-4010GU3			7.5			98
YD-5005GU3	65	50	3.7	26.7—800	25.2—790	77
YD-5007GU3			5.5	31.1—850	36.4—930	100
YD-5010GU3			7.5		46—1030	104

GT ETFE (S.G.1.0)

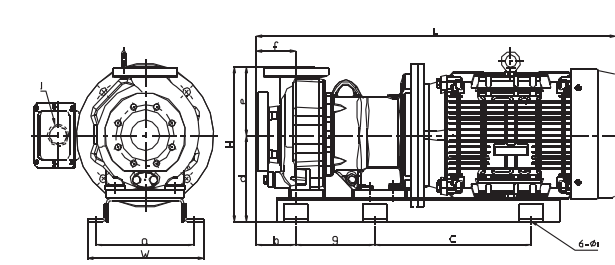
Model	Bore (mm)		Out put (kW)	50Hz	60Hz	Weight (kg)
	Suc.	Dis.		Max. head - Max. capacity (m) — (L/min)	Max. head - Max. capacity (m) — (L/min)	
YD-4005GT3	50	40	3.7	34.2—520	31.9—510	86
YD-4007GT3			5.5	38.5—550	47—610	109
YD-4010GT3			7.5		56.7—660	113
YD-5005GT3	65	50	3.7	24.5—800	25.4—790	89
YD-5007GT3			5.5	37.1—920	36.4—930	112
YD-5010GT3			7.5		45.6—1020	116
YD-4107GT3	50	40	5.5	38.2—480	38.6—490	135
YD-4110GT3			7.5	52.1—550	48.7—540	139
YD-4115GT3			11	64.5—610	64.3—620	174
YD-4120GT3			15		85.6—700	185
YD-4125GT3			18.5		94.6—740	196
YD-5107GT3			5.5	32—590	36.8—500	140
YD-5110GT3	65	50	7.5	42.5—780	40.4—780	144
YD-5115GT3			11	57.6—880	54.6—880	179
YD-5120GT3			15	62.8—930	71.2—990	190
YD-5125GT3			18.5		79.5—1040	203
YD-6507GT3-N			5.5	30—1100	35.4—860	130
YD-6510GT3-N	80	65	7.5	36.8—1210	38.5—1240	134
YD-6515GT3-N			11	43—1270	50.6—1420	165
YD-6520GT3-N			15		59.5—1500	176
YD-6525GT3-N			18.5		63.3—1530	189
YD-8007GT3	100	80	5.5	25.8—1900	—	199
YD-8010GT3			7.5	33—2000	—	203
YD-8015GT3			11	40.8—2190	41.3—2310	238
YD-8020GT3			15	49.5—2390	52.4—2430	249
YD-8025GT3			18.5	53.1—2480	60.4—2530	262
YD-8030GT3			22	59.9—2650	67.7—2630	345
YD-10015GT3	150	125	11	18—4310	21.5—2720	308
YD-10020GT3			15	23.9—4750	21.5—4600	319
YD-10025GT3			18.5	25.1—4870	26.5—5030	332
YD-10030GT3			22		32.2—5340	415
YD-10040GT3			30		36.8—5840	455

<Outline>

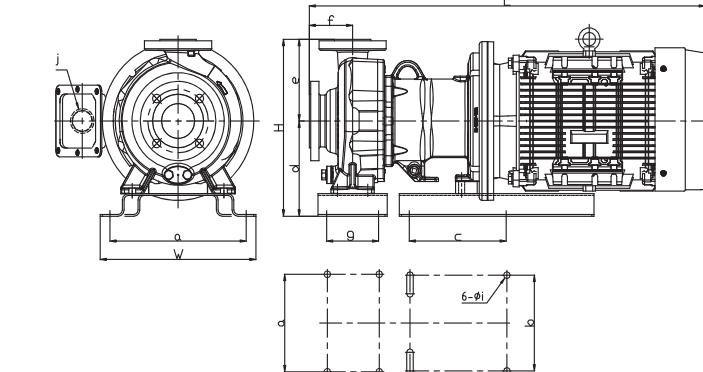
● 25/40/50GU3



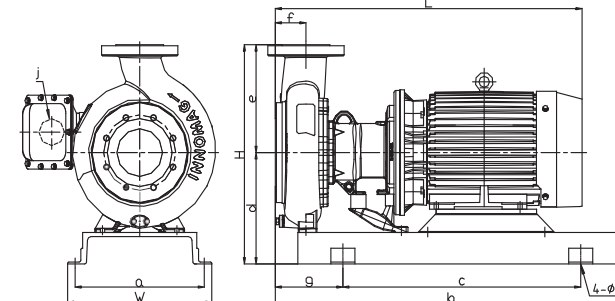
● 65GT3-N



● 40/41/50/51GT3



● 80/100GT3



<Dimension>

Dimension															(mm)
Model	Output (kW)	Bore (mm) Suc.	Dis.	W	H	L	a	b	c	d	e	f	g	φ i	j
YD-2501GU3	0.75	40	25	245	254	485	203	59	140	114	140	80	174	14	PF3/4
YD-2502GU3	1.5					522									
YD-2503GU3	2.2					551									
YD-2505GU3	3.7				295	580				155					
YD-4001GU3	0.75	50	40	245	295	487	203	65	140	155	140	87	181	14	
YD-4002GU3	1.5					524.5									
YD-4003GU3	2.2					553.5									
YD-4005GU3	3.7					587									
YD-4007/4010GU3	5.5/7.5	65	50	245	315	647.5	203	0	140	155	160	80	174	14	PF1 1/2
YD-5005GU3	3.7					580									PF3/4
YD-5007/5010GU3	5.5/7.5					640.5									PF1 1/2
YD-4005GT3	3.7	50	40	360	370	625	315	311	224	210	160	80	120	15	PF3/4
YD-4007/4010GT3	5.5/7.5					673.5									PF1 1/2
YD-5005GT3	3.7	65	50	360	370	625	315	311	224	210	160	80	120	15	PF3/4
YD-5007/5010GT3	5.5/7.5					673.5									PF1 1/2
YD-4107/4110GT3	5.5/7.5	50	40	360	390	741.5	315	311	224	210	180	80	120	15	PF1 1/2
YD-4115/4120GT3	11/15					895									
YD-4125GT3	18.5					915									
YD-5107/5010GT3	5.5/7.5	65	50	360	390	761.5	315	311	224	210	180	100	120	15	PF1 1/2
YD-5115/5020GT3	11/15					915									
YD-5125GT3	18.5					918									
YD-6507/6510GT3-N	5.5/7.5	80	65	296	375	764.5	248	102	400	210	165	102	200	15	PF1 1/2
YD-6515/6520GT3-N	11/15					918									
YD-6525GT3-N	18.5					918									
YD-8007/8010GT3	7.5	100	80	480	505	764.5	430	830	540	280	225	100	170	19	PF1 1/2
YD-8015/8020GT3	11/15					918		930	600						PF1 1/2
YD-8025GT3	18.5					918		PF1 1/2							
YD-8030GT3	22					943.5		PF3							
YD-10015GT3	11	150	125	480	697	918	430	1167	792	354	343	102	225	19	PF1 1/2
YD-10020GT3	15					918									PF1 1/2
YD-10025/10030GT3	18.5/22					943.5									PF3
YD-10040GT3	30					1021.5									PF3

Installation / piping precaution

YD-GU / GT series

1) Installation precaution

- ① If large amount of air enters during operation, it cause damage for pumping failure.
 - Set the height from the pump suction to liquid level in a tank 50 cm and more.
 - Do not pipe up and down that the air stays in the suction pipe.
 - Install the suction pipe on the up 1/100 and more grade to the pump.
 - Use the suction pipe whose bore is bigger than the pump's one. If different, use the reducer and pipe the top horizontally.
- ② Install the strainer at the suction inlet to prevent dirt and foreign objects.
However, clean the strainer periodically not to be clogged and minimize the loss resistance.
- ③ In the event of the followings, it is recommended to install check valves on the rising piping at the discharge side to prevent water hammer. Moreover, install the bypass for air release underneath.
 - When the discharge pipe is long or the head is 10 m and more.
 - When the end of the discharge pipe is 9 m and more higher than the liquid level in the suction tank.
 - When two and more pumps are used in parallel.
- ④ Install any bending or expansion joints on the pipes not to leak liquid by the pump deformation, because the pipes are expanded by the heat depending on the liquid temperature.
- ⑤ The main parts inside of the pump are made of plastic, so be carefully not have an impact.

2) No uneven and over tightening of the pump flange

- ① Make the pipe and pump flange level and be careful not to tighten bolts too much.
- ② When piping, fit the bolt position of the pump and pipe flange directly.
If not, it may damage the pump casing.

3) No piping load

- ① Get the pipe load completely with a piping support.
- ② If the liquid temperature is high (40 degrees and more), install any bending or expansion joints that the pump is subjected to a load by heat expanded pipes.

4) Example of installation

