GPT CO

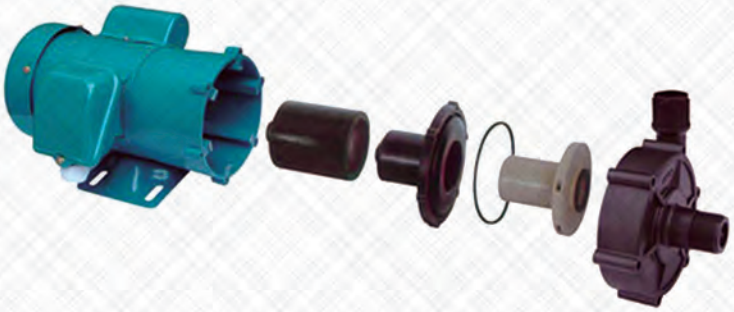
G.P.T.CO

GOL PUMPS TECHNOLOGY INC

MAGNET PUMP

Corrosive acids, Alkalis, Solvents, Brines, Plating solutions, Sterile solutions,

And other mildly corrosive chemicals and solutions that are compatible with the pump's material of construction.



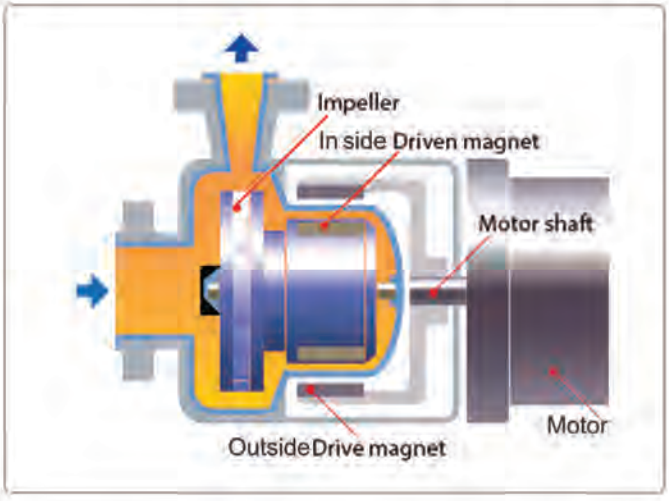
CE

RoHS ISO9001:2000

Description Magnet pumps

Magnetic Driven Pumps are seal-less pumps that use a coaxial magnetic coupling to transmit torque to an impeller. A standard electric motor drives a set of permanent magnets that are mounted on a carrier or drive assembly. In turn, the magnets drive the inner rotor and provide the no-slip or synchronous capability of the torque coupling.

Fluid is moved by a centrifugal pump through the use of centrifugal force. Fluid is taken into the center of the impeller through the inlet connection called Suction Eye. Most centrifugal pumps prefer a positive inlet pressure to prevent Cavitation (lack of enough positive inlet pressure to prevent liquid vaporization). This fluid is then caught by the vanes of the impeller as it spins. This rotation of the fluid mechanically by the vanes “throws” the fluid to the outside of the impeller and toward the discharge port of the liquid end of the pump. This mechanical movement of the fluid creates the discharge pressure of the pump. Variables like inlet fluid supply pressure, impeller diameter, motor horsepower and closed face versus open face all affect the flow and pressure of the pump. Each of these variables can be manipulated to achieve a desired flow and/or pressure.



A magnetic coupling consists of two magnet assemblies.One is the outer assembly (the drive magnet) and the other is the inner assembly (the driven magnet). The outer assembly is connected to a motor and the inner assembly is directly attached to the pump impeller. As illustrated, at rest, the magnet components of the outer assembly are aligned with their counterparts in the inner assembly.When load (torque) is applied, the coupling deflects angularly and the magnets create a force of simultaneous attraction and repulsion. This force is used to transfer torque from the motor to the impeller.

GMD-Magnet pumps are therefore seal less and hermetically closed.

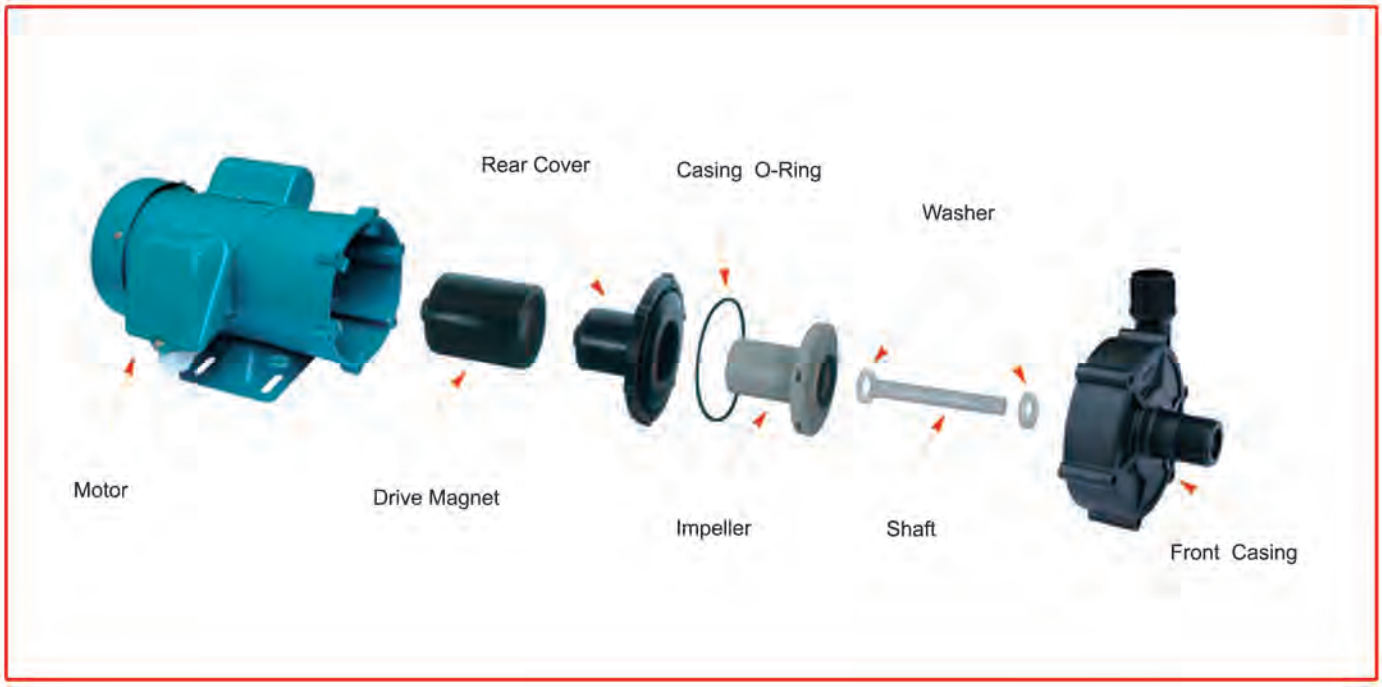
Typical applications

Industry	Example of application
Chemical stockists	Transfer of various chemicals from storage tanks to smaller containers
Surface treatment	Transfer, filtering and circulation of surface treatment baths
Food and beverage	Pumping of CIP detergent used for cleaning of pipes and other food process equipment
Water treatment	Dosing of acids and alkalis used as cleaning chemicals in n anofiltration
Chemical manufacture	Pumping of chemicals in industrial detergent equipment
Demineralizing	Demi-water circulation and transfer in many industrial applications
Photo processing	Transfer of photo develop chemicals and inclusion in processing machines
Liquid crystal manufacture	Pumping of concentrated acids and alkalis

Material of components

Component	Material/Info	
	Standard	In order
Pump casing	PP	PVDF
Impeller	PP	PVDF
Lantern	PP (GF 30 %)	PVDF
Stationarv bushings	Ceramic (PP)	Silicon Carbide
Rotation bushings	Charbographite	Silicon Carbide
O-rings	FXM	EPDM orFFKM

It is an internal replacement part for the high-performance compact magnet pump **MD** series (standard specification).
It is a set of front casing, spindle, impeller, **O-ring**, and rear casing.

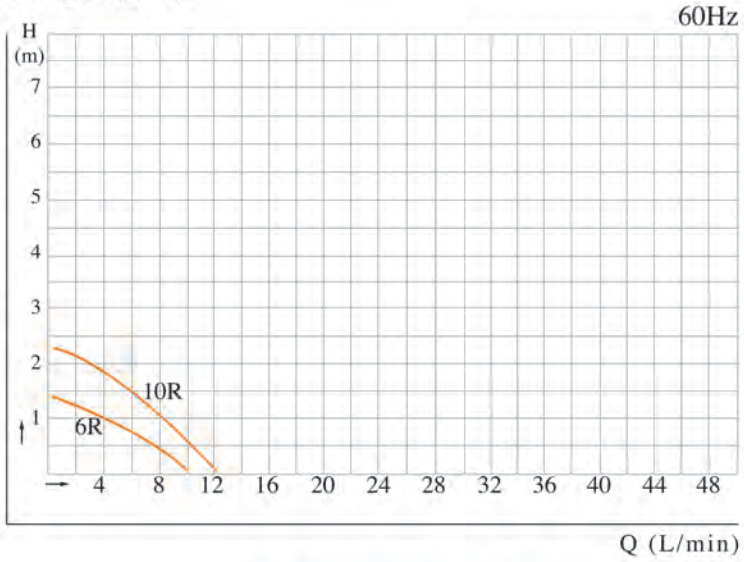


It is an internal replacement part for the high-performance compact magnet pump **MD** series (standard specification).
It is a set of front casing, spindle, impeller, **O-ring**, and rear casing.

MAGNET PUMP

> PERFORMANCE CURVE

G MD - 6R ~ MD - 10R

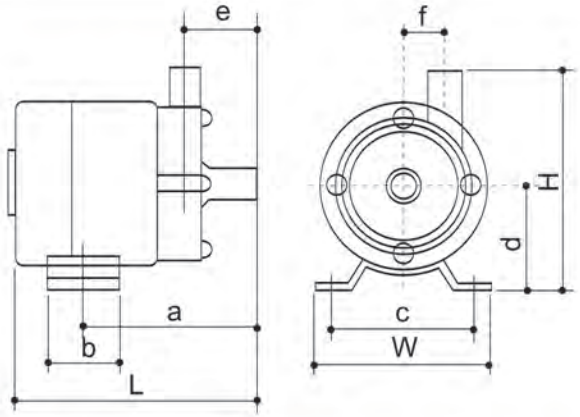


GMD-6R

GMD-10R

> DIMENSIONS

G MD - 6R / 10R



DIMENSION (mm)-(inch)

Model	Unit	W	H	L	a	b	c	d	e	f
GMD-6	mm	74	92	104	73	30	60	45	31	17
	inch	2.91	3.62	4.09	2.87	1.18	2.36	1.77	1.22	0.67
GMD-10	mm	74	92	104	73	30	60	45	31	17
	mm	2.91	3.62	4.09	2.87	1.18	2.36	1.77	1.22	0.67

Technical Specifications

Model	Tube interface (hose)		Max outlet m-L/min	Max Head m-L/min	Temperature °C	Liquid Specitic Weight	Motor			
	Inlet	Outlet					V	Input W	Output W	Phase
GMD1-6	14 mm	14 mm	0.5 m / 8 L-min	1.2 m /2 L-min	0 °C-80 °C	1.2 Kg	108 -120	22	3	Singel
	1/2 in	1/2 in	1.7 ft / 2.1 Gpm	4 ft / 0.5Gpm	32 °F-176 °F	2.65 Lb				
GMD1-10	14 mm	14 mm	0.5 m / 10 L-min	2m -3 L-min	0 °C-80 °C	1.1 Kg	108 -120	35	6	Singel
	1/2 in	1/2 in	1.7 ft / 2.6 Gpm	6.6 ft / 0.8Gpm	32 °F-176 °F	2.4 Lb				

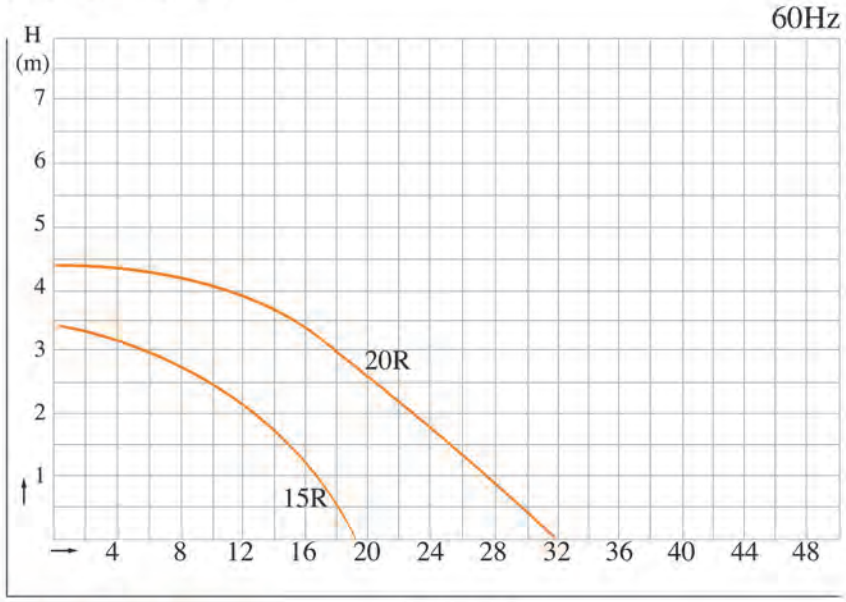
MAGNET PUMP

GMD-15R

GMD-20R

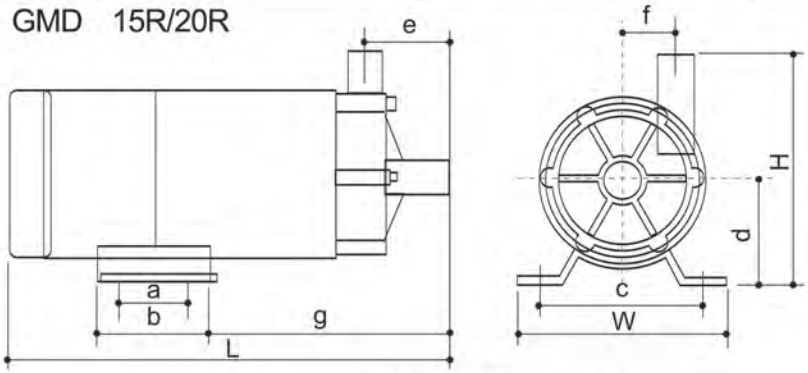
PERFORMANCE CURVE

G MD - 15R ~ MD - 20R



DIMENSIONS

GMD 15R/20R



DIMENSION (mm)-(inch)

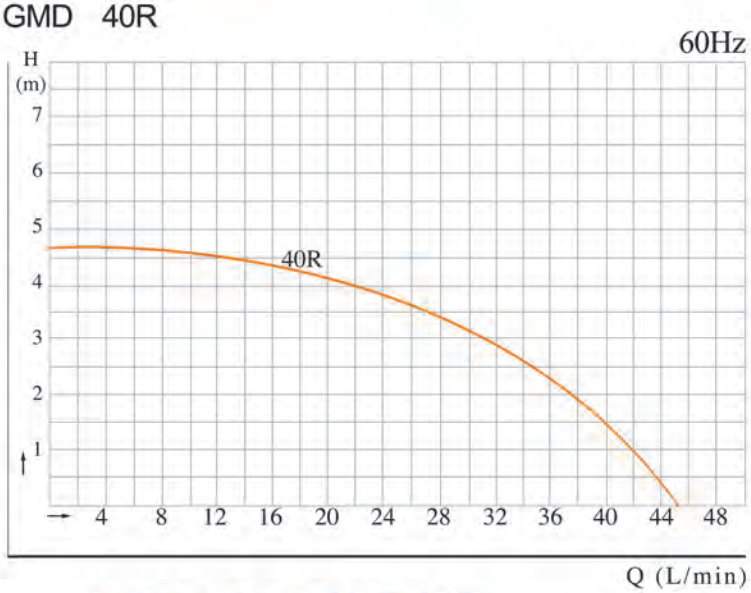
Model	Unit	W	H	L	a	b	c	d	e	f	g
GMD-15R	mm	95	109	179.5	-	50	68	55	39	21.5	92
	inch	3.74	4.29	7.07	-	1.97	2.68	2.17	1.54	0.85	3.62
GMD-20R	mm	120	106	208.5	40	64	100	60	38	28.5	93.5
	inch	4.72	4.17	8.21	1.57	2.52	3.94	2.36	1.50	1.12	3.68

Technical Specifications

Model	Tube interface (hose)		Max outlet m-L/min	Max Head m-L/min	Temperature °C	Liquid Specitic Weight	Motor			
	Inlet	Outlet					V	Input W	Output W	Phase
GMD1-15R	14 mm	14 mm	1.2 m/16 Lmin	3 m / 6 Lmin	0 °C-80 °C	1.3 Kg	108 -120	26	10	Singel
	1/2 in	1/2 in	4 ft / 4.23 Gpm	10 ft / 1.58 Gpm	32 °F-176 °F	2.87 Lb				
GMD1-20R	18 mm	18 mm	1.5 m /26 Lmin	4 m / 10 Lmin	0 °C-80 °C	1.1 Kg	108 -120	40	20	Singel
	3/4 in	3/4 in	5 ft / 6.7 Gpm	13.3 ft / 2.64 Gpm	32 °F-176 °F	2.43 Lb				

› PERFORMANCE CURVE

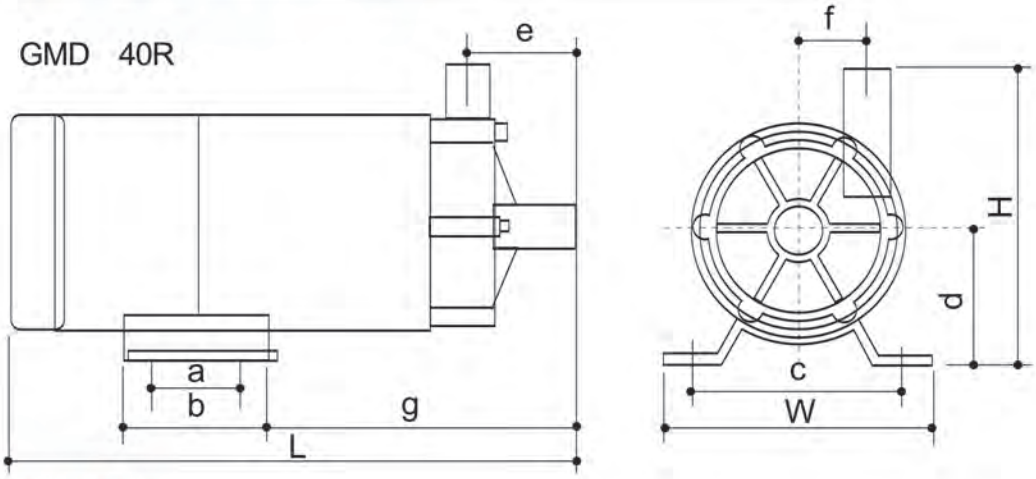
GMD 40R



GMD-40R

› DIMENSIONS

GMD 40R



DIMENSION (mm)-(inch)

Model	Unit	W	H	L	a	b	c	d	e	f	g
GMD-40R	mm	120	130	250	40	64	100	60	48	31	137
	inch	4.72	5.12	9.84	1.57	2.52	3.94	2.36	1.89	1.22	5.39

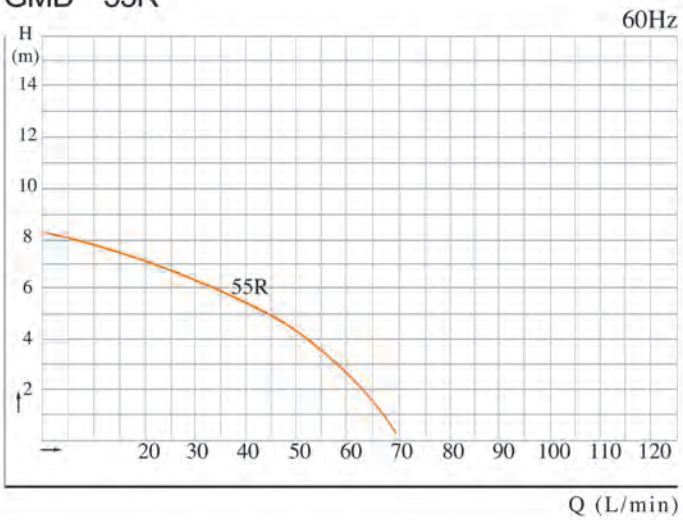
Technical Specifications

Model	Tube interface (hose)		Max outlet m-L/min	Max Head m-L/min	Temperature °C	Liquid Specitic Weight	Motor			
	Inlet	Outlet					V	Input W	Output W	phase
GMD-40R	20 mm	20 mm	1.5 m / 40 Lmin	4.5 m / 13 Lmin	0 °C-80 °C	1.1 Kg	108 -120	65	90	1
	3/4 in	3/4 in	5 ft / 10.6 Gpm	15 ft / 3.34 Gpm	32 °F-176 °F	2.43 Lb				

MAGNET PUMP

> PERFORMANCE CURVE

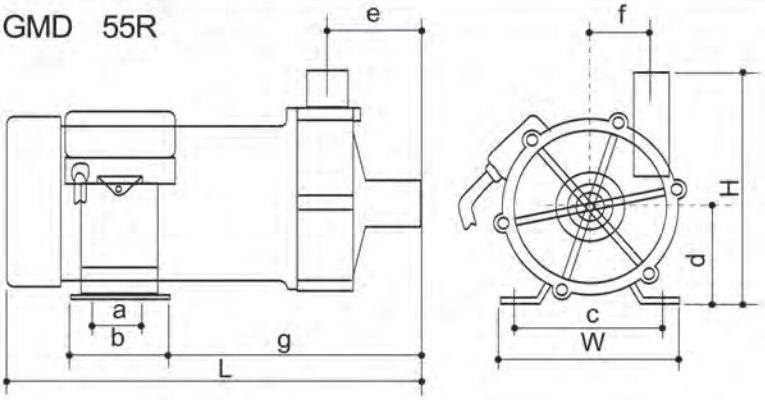
GMD 55R



GMD-55R

> DIMENSIONS

GMD 55R



DIMENSION (mm)-(inch)

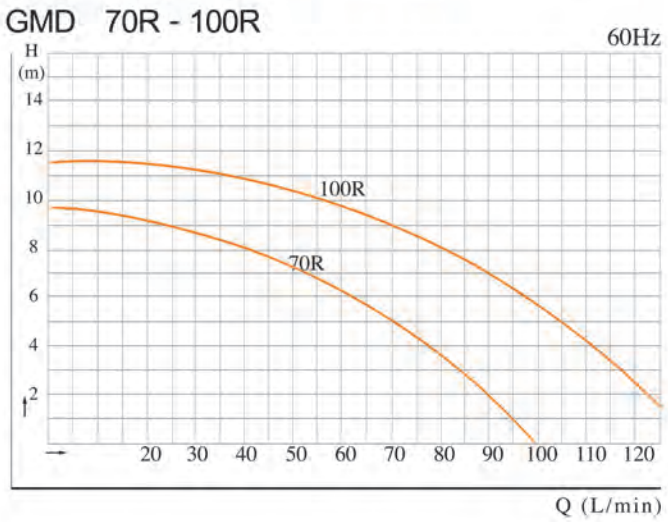
Model	Unit	W	H	L	a	b	c	d	e	f	g
GMD-55R	mm	120	155	273.5	40	64	100	65	61.5	40	166.7
	inch	4.72	6.10	10.77	1.57	2.52	3.94	2.56	2.42	1.57	6.56

Technical Specifications

Model	Tube interface (hose)		Max outlet m-L/min	Max Head m-L/min	Temperature °C	Liquid Specitic Weight	Motor			
	Inlet	Outlet					V	Input W	Output W	phase
GMD-55R	26 mm	26 mm	1.5 m /65 Lmin	7.5 m / 15 Lmin	0-75	1.2 Kg	108 -120	90	130	Singel
	1"	1"	5 ft / 17.17 Gpm	25 ft / 3.96 Gpm	32 °F-170 °F	2.65 Lb				

MAGNET PUMP

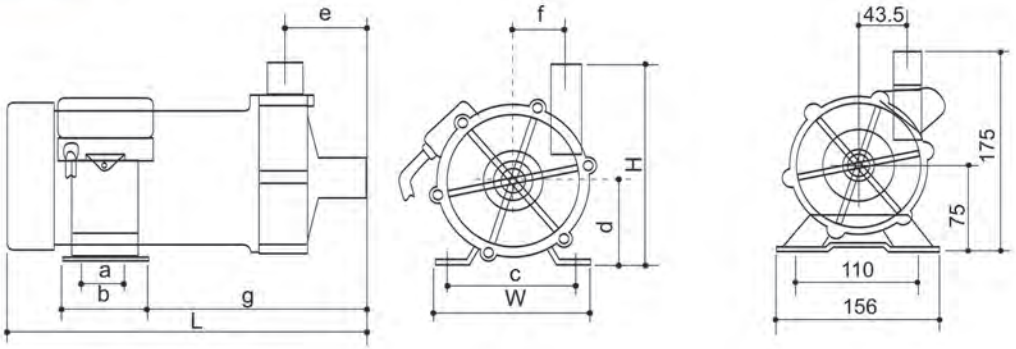
› PERFORMANCE CURVE



GMD-70R

GMD-100R

› DIMENSIONS (GMD 70 R - GMD 100 R)



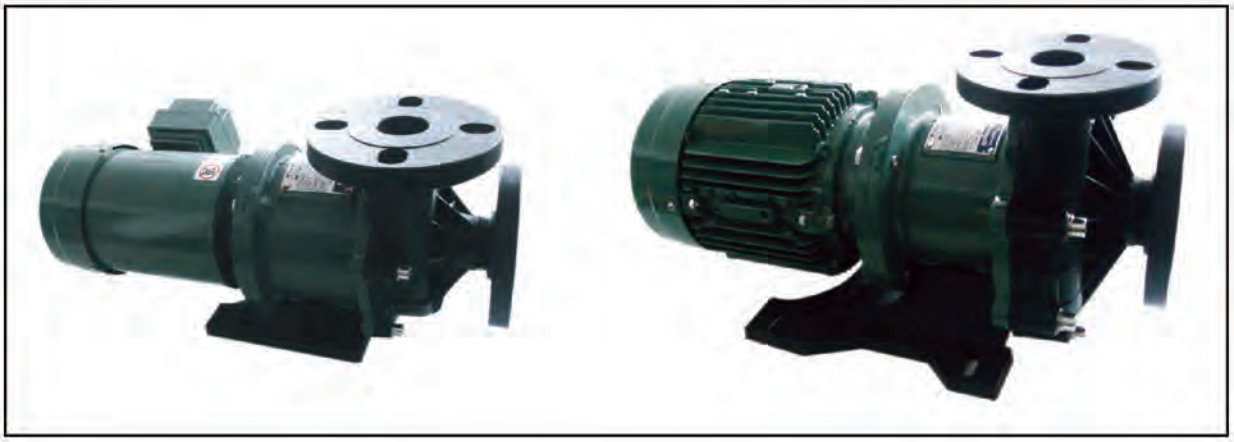
DIMENSION (mm)-(inch)

Model	Unit	W	H	L	a	b	c	d	e	f	g
GMD-70R (M)	mm	130	155	258	40	60	110	65	53	43	149
	inch	5.12	6.10	10.16	1.57	2.36	4.33	2.56	2.09	1.69	5.87
GMD-100R (M)	mm	156	176	321.8	70	100	110	75	64.8	43.5	146.8
	inch	6.14	6.93	12.67	2.76	3.94	4.33	2.95	2.55	1.71	5.78

Technical Specifications

Model	Tube interface(hose)		Max outlet m-L/min	Max Head m-L/min	Temperature °C	Liquid Specitic Weight	Motor			
	Inlet	Outlet					V	Input W	Output W	phase
GMD-70R	26 mm	26 mm	2 m /90 Lmin	9 m / 25 Lmin	0 °C-80 °C	1 Kg	108 -120	150	265	Singel
	1"	1"	6.66 ft / 23.78 Gpm	30 ft / 6.6 Gpm	32 °F-176 °F	2.205 Lb				
GMD-100R	26 mm	26 mm	2.5 m /120 Lmin	11 m / 37 Lmin	0 °C-80 °C	1.2 Kg	108 -120	260	365	Singel
	1"	1"	8.3 ft / 31.7 Gpm	36.7 ft / 9.77 Gpm	32 °F-176 °F	2.65 Lb				

GMD 400 Series



1. Magnetic heat dissipation structure (PAT.)

-Spindle and bearing through heat diffusion hole installed in the fixed part of impeller and magnet capsule Efficient diffusion, heat dissipation, and cooling of heat generated during abnormal operation by forcibly circulating the surrounding liquid To prevent thermal deformation and melting of the resin.

2. Sturdy structure

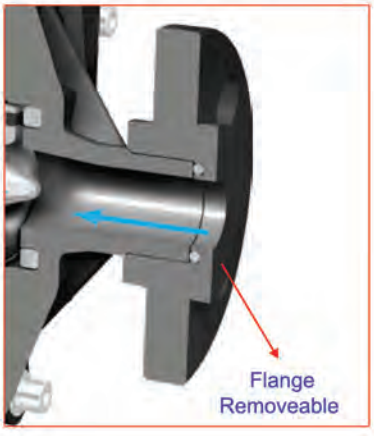
-All parts subject to stress such as front casing and rear casing are reinforced with ribs, We are trying to improve the mechanical strength.

3. Excellent corrosion resistance

-The main body is CFR-ETFE, and the other wetted parts are made of excellent corrosion-resistant materials such as carbon, ceramics, and SiC, so that acid/alkali, etc. Can be used for all chemicals.

4. Flange removable

- In these models, a standard threaded flange is used
This pump can be used both with a flange and with a BSPT threaded outlet



GMD 400 Series

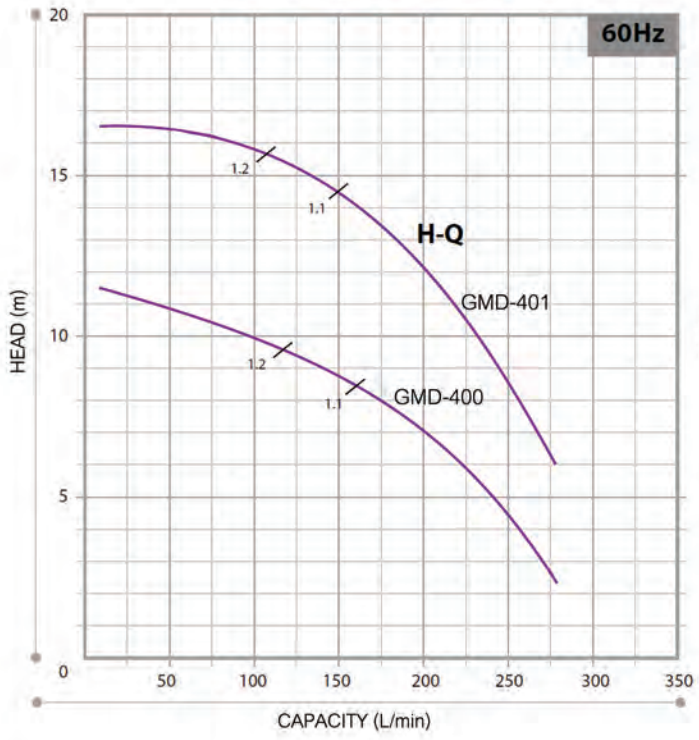
GMD 400 / 401

GMD 402-403

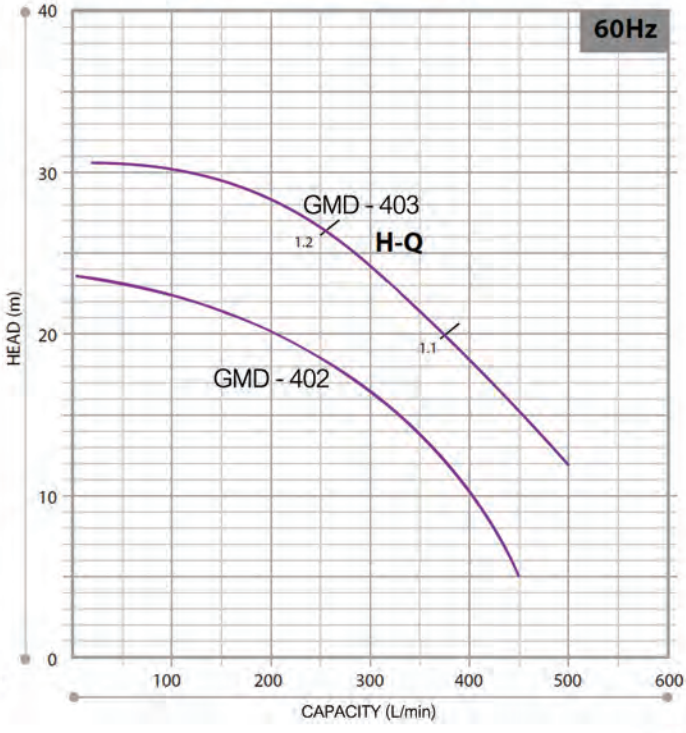
Technical Specifications

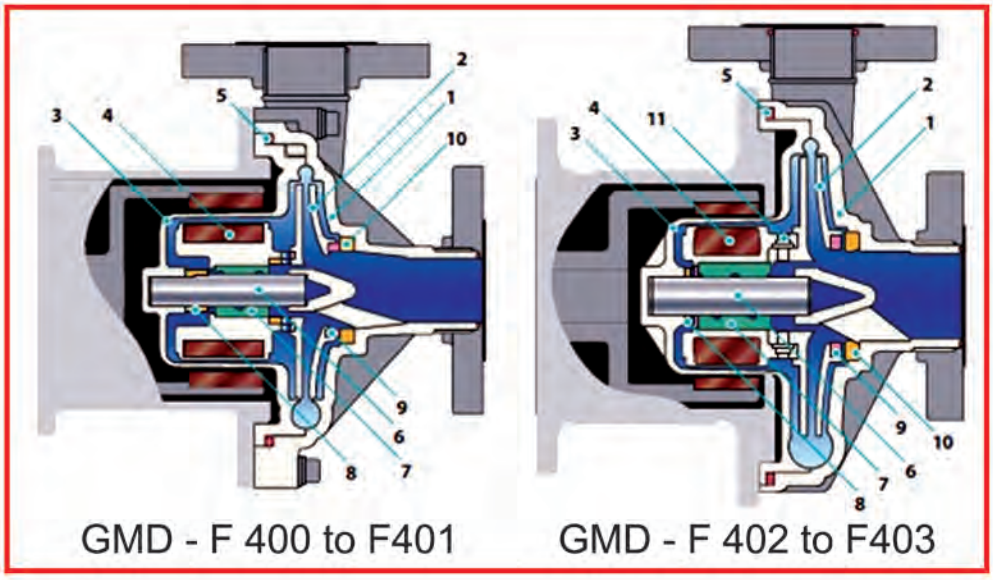
Model	Flange interface		Max outlet m-L/min	Max Head m-L/min	Temperature °C	Liquid Specitic Weight	Motor		
	Inlet	Outlet					V	Output W	phase
GMD1-400	40 mm	40 mm	2 m /90 Lmin	9 m / 25 Lmin	0 °C-80 °C	1.2	115	400	Singel
	G 1 1/4"	G 1 1/4"	6.66 ft / 23.78 Gpm	30 ft / 6.6 Gpm	32 °F-176 °F	2.65 Lb			
GMD1-401	40 mm	40 mm	2.5 m /120 Lmin	11 m / 37 Lmin	0 °C-80 °C	1.2	115	750	Singel
	G 1 1/4"	G 1 1/4"	8.3 ft / 31.7 Gpm	36.7 ft / 9.77 Gpm	32 °F-176 °F	2.65 Lb			
GMD1-402	50 mm	40 mm	2 m /90 Lmin	9 m / 25 Lmin	0 °C-80 °C	1.2	220	1500	Singel
	G 2"	G 1 1/4"	6.66 ft / 23.78 Gpm	30 ft / 6.6 Gpm	32 °F-176 °F	2.65 Lb			
GMD1-403	50 mm	40 mm	2.5 m /120 Lmin	11 m / 37 Lmin	0 °C-80 °C	1.2	220	2200	Singel
	G 2"	G 1 1/4"	8.3 ft / 31.7 Gpm	36.7 ft / 9.77 Gpm	32 °F-176 °F	2.65 Lb			

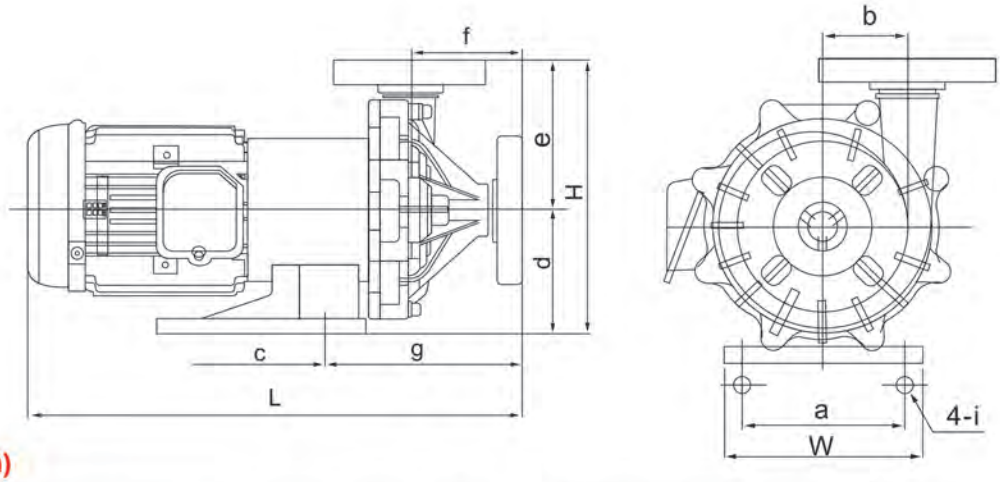
GMD 400 / 401



GMD 402 / 403







DIMENSION (mm)-(inch)

Model	Unit	W	H	L	a	b	c	d	e	f	g	i
GMD-400	mm	140	255	452	110	54	98	95	130	87	150	12
	inch	5.51	10.04	17.80	4.33	2.13	3.86	3.74	5.12	3.43	5.91	0.47
GMD-401	mm	160	255	479	130	75	130	115	140	103	184	12
	inch	6.30	10.04	18.86	5.12	2.95	5.12	4.53	5.51	4.06	7.24	0.47
GMD-402	mm	260	280	516	208	80	200	120	160	89	157	14×36
	inch	10.24	11.02	20.31	8.19	3.15	7.87	4.72	6.30	3.50	6.18	0.55×1.42
GMD-403	mm	260	280	516	208	80	200	120	160	89	157	14×36
	inch	10.24	11.02	20.31	8.19	3.15	7.87	4.72	6.30	3.50	6.18	0.55×1.42

Chcemical resistance guide

Chcemical resistance ratings
A-Excellent
B-Good
C-Fair
X-Not Recommended
--Data Not Available

Maximum operating temperatrue
1-20℃(68F)
2-40℃(104F)
3-60℃(140F)
4-80℃(176F)
5-100℃(212F)
6-120℃(248F)

CHEMICAL		MATERIAL						
		PP	PTFE	FKM	Chemigum	EPDM	95Ceramic	high density carbon
Sulfuric Acid	0~10%	A4	A6	A6	B2	A4	A5	A6
	10~75%	A3	A6	A4	X	A3	A5	A6
	75~100%	B2	A4	A4	-	B2	A5	A4
Nitric Acid	10%	A3	A5	A5	X	A2	A5	A6
	30%	A2	A6	A6	X	A2	A5	A6
	50%	B2	A3	A1	X	X	A5	A5
Hydrochloric acid	0~25%	A4	A6	A3	B1	A3	A5	A6
	25~40%	A4	A6	B2	X	C2	A5	A6
Hydrofluoric acid	10%	B2	A6	A3	X	A3	-	A3
	30%	C2	A6	A4	-	B3	-	A3
	60%	X	A6	A4	-	C2	-	A2
Acetic acid	20%	A2	A6	B1	B2	A2	A5	A4
	80%	B1	A6	X	-	-	A5	A4
Sodium hydroxide	20%	A3	A6	B1	B2	A3	-	A3
	50%	A3	A6	X	B1	A4	-	A3
Brominae Water		C1	A3	A2	-	X	A1	A2
Ethyl alcohol		A2	A3	A3	X	B3	A3	A5
Acetone		A2	A6	X	-	B2	A3	A5
12 Freon12		X	A6	A1	X	B1	A4	A4
Aluminum Chloride		A4	A6	A5	B4	A4	A4	A5
Ammonia Liquid		A1	A6	C1	B4	B3	A3	A5
Aqua Regia		C2	A5	B2	-	C2	A4	-
Formaldehyde		A4	A6	A4	X	A4	A4	A5
Gasolines		X	A6	B3	B3	X	A4	A6
Kerosens		A1	A6	A1	B1	X	A4	A6
Methyl alcohol		A3	A6	B2	B4	A3	A5	A6
Toluene		C1	A4	B1	-	X	A5	A4
Trichloroethylene		C1	A6	A1	-	X	A4	A6
Xylene		X	A6	B1	-	X	A5	A5
Nitric acid anhydrous		C1	A3	A1	-	X	A5	A2
Oleum		X	A6	A4	-	X	A5	A2
Potassium hydroxide		A4	A6	B1	C2	A5	-	A6

Note:95ceramic means containing 95 percent of alumina.

G.P.T.CO

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