

## G series mechanical diaphragm dosing pump

### GB pump

Model	GB40(80-450)		GB60(500-600)		GB80(700-1200)		GB80(1500)		GB80(1800)	
	Plastics	Metal	Plastics	Metal	Plastics	Metal	Plastics	Metal	Plastics	Metal
A	237	260	286	338	362	414	374	446	420	458
B	5	4	19	46	59	85	64	100	87	102
C	60.3	60.3	71.4	76.2	96.4	100	96.4	100	96.4	100
D	333	333	351.2	348	373.1	373.1	373.1	373.1	373.1	373.1
N	1/2" F NPT	1/2" F NPT	1" F NPT	1" M NPT	1" F NPT	1" M NPT	1" F NPT	1 1/2" M NPT	1 1/2" F NPT	1 1/2" M NPT
	DN15 (PVC pump head only)	—	DN25 (PVC pump head only)	—	DN25 (PVC pump head only)	—	—	—	—	—

### GM pump

Pump head	GM0002 - GM0050				GM0090 - GM0500			
	Port code	A	B	C	Port code	A	B	C
PVC	P	108	116	250	Q	127	159	322
PVDF	P	108			N	131		
316	N	102			N	131		

## Nanfeng Pump Industry Co.,Ltd.

CNP Headquarter

Address: Renhe Town, Hangzhou China

PostCode: 311107

Tel: +86 571 86397810, 86397838

Fax: +86 571 86397809

E-mail: info@nanfang-pump.com

Website: www.cnppump.com

### G series mechanical diaphragm dosing pump



#### Main Function Parameter

- Single-head maximum flow: 1800L/H
- Highest pump discharge head: 12bar
- Adjustment Ratio 10:1, Steady precision  $\pm 2\%$
- Suction head: Max 3mtrs water
- Maximum inlet pressure: 2bar
- The highest temperature of the material: 40°C

#### Main features

##### Hydraulic end

- Disphram is mechannically driven, no diaphragm protecting plate at the material side,ripe for material getting through
- Many kind of pump head material like PVC,PVDF, 316SS,high viscosity,sizing agent,fit for all kinds of materials
- Self-cleaning one-way valve structure

##### Driving end

- Variable eccentric institutions regulation, insure flow pulsation gently vary
- Enhanced structure design, suitable for tough operation environment
- Wear-resisting ball bearings, running is more stable
- Oil bath lubrication, driving components have long working life
- Flow regulation in downtime or running state, adjustment mode can be selected manually, motor-driven or frequency conversion

##### Control mode

- Electric stroke controller,accept external control signal, adjust stroke length
- Power supply: 200V-50Hz-single phase
- Input signal: 4-20mA analog signal
- Output signal: 4-20mA/1-5V analog signal,for records shown and control system usage
- Variable frequency controller,accept external control signal,adjust stroke speed
- Power supply: 220V-50Hz-single phase/380-50Hz-three phase
- Input signal: 4-20mA analog signal
- Motor controller,control three phase motor with mode "run/stop",adjust output flow
- Power supply: 200-240V-50/60Hz-single phase
- Control mode: can accept 4-20mA analog signal,external pulse signal or manual adjustment

#### Major Applications

- Municipal,industrial water and waste water,swimming pool etc. all kinds of water treatment process

### Options

- Two diaphragm pump heads
- Two diaphragm pump heads, broken pressure gauge detection and pressure switch detection
- Stroke count sensor
- PNP output/NPN output/Relay output



### The material of the main components of hydraulic end

#### GM0002 ~ GM0050

Hydraulic end material	Hydraulic end cover	Valve body	Valve seat	Valve ball	Diaphragm	Seal ring	Connection
PVC	PVC	PVDF	PVDF	Ceramic	PTFE	Fluorous rubber	PVC
PVDF	PVDF	PVDF	PVDF	Ceramic	PTFE	PTFE	PVDF
316 SS	316 SS	316 SS	316 SS	316 SS	PTFE	Fluorous rubber	316 SS

#### GM0090 ~ GM0500

Hydraulic end material	Hydraulic end cover	Valve body	Valve seat	Valve ball	Diaphragm	Seal ring	Connection
PVC	PVC	PVC	PVC	Ceramic	PTFE	Fluorous rubber	PVC
PVDF	PVDF	PVDF	PVDF	Ceramic	PTFE	PTFE	PVDF
316 SS	316 SS	316 SS	316 SS	316 SS	PTFE	Fluorous rubber	316 SS

#### GB0080 ~ GB1500

Hydraulic end material	Hydraulic end cover	Valve body	Valve seat	Valve ball	Diaphragm	Seal ring	Connection
PVC	PVC	PVC	PVC	Ceramic	PTFE	Fluorous rubber	PVC
PVDF	PVDF	PVDF	PVDF	Ceramic	PTFE	PTFE	PVDF
316 SS	316 SS	316 SS	316 SS	316 SS	PTFE	Fluorous rubber/PTFE	316 SS

#### GB1800

Hydraulic end material	Hydraulic end cover	Valve body /Bush	Valve plate /Lift limit plate	Spring	Diaphragm	Seal ring	Connection
PVC	PVC	PVC/PVC	PVC/PVC	hastelloy c	PTFE	Fluorous rubber	PVC
PVDF	PVDF	PVDF/PVDF	PVDF/PVDF	hastelloy c	PTFE	PTFE	PVDF
316 SS	316 SS	316 SS /316 SS	316 SS /316 SS	hastelloy c	PTFE	Fluorous rubber	316 SS

### Accessory

Provide system required accessories as: Filter, Adjusting pillar, Buffer, Safety valve and Back pressure valve etc., Safety valve is mandatory.  
(GM0002~GM0050 range and pump with PVC/PVDF pump head, along with the dosing pump to provide injection valve, foot valve, counter weight and 6 meters tube, except the high viscosity pump head)

### Standard configuration motor performance parameters

Power supply: 380V~50Hz~three phase/220V~50Hz~single phase  
Protection grade: IP55  
Insulation class: F  
Explosion-proof motor, 60Hz motor can be chosen. All the motors accord with international electrical association IEC standard or US electrical committee NEC standards

### G series mechanical diaphragm dosing pump product code and flow pressure table

Code	Series	Flow	Hydraulic end	Port	Motor	Adjustment	Baseplate	Option

  

Series	Code	Description	Code	Description
GM		GM series mechanical diaphragm dosing pump	GB	GB series mechanical diaphragm dosing pump

  

Flow	Code	LPH@Pmax	SPM	Pmax(bar)	Motor rate	Code	LPH@Pmax	SPM	Pmax(bar)	Motor rate
GM0002	GM0002	2.25	36	12	0.25kW <sup>1)</sup>	GB0080	82	36	10	0.55kW 0.75kW <sup>1)</sup>
	GM0005	4.5	72			GB0180	167	72		
	GM0010	9	144			GB0250	237	102		
	GM0025	25	72			GB0350	334	144		
	GM0050	50	144			GB0450	416	180		
GM0090	GM0090	85	72	10	0.25kW <sup>1)</sup> 0.37kW <sup>2)</sup>	GB0500	464	144	7	0.75kW
	GM0120	115	72			GB0600	583	180		
	GM0170	170	144			GB0700	656	102		
	GM0240	235	144			GB1000	946	144		
	GM0330	315	144			GB1200	1200	180		
GM0400	GM0400	400	144	5	0.37kW <sup>1)</sup>	GB1500	1500	180	3	0.75kW
	GM0500	500	180			GB1800	1800	206		

1) This power is available for constant speed or frequency conversion, 5-50Hz conversion need to use inverter motor;  
2) This power is available for single phase and inverter motor.

Hydraulic end	Code	Description	Code	Description
P		PVC hydraulic end	V	High viscosity application, PVC hydraulic end
S		316 hydraulic end	K	Sizing agent application, GM0025-0500; 316 hydraulic end; GB: PVC hydraulic end
T		PVDF hydraulic end	M	Mixture application, GM: PVDF hydraulic end
F		NaClO application: PVC hydraulic end*	Z	Special materials hydraulic end, consult CNP, indicate when ordering

(\*) GM0002-0050: EPDM O ring; GM0090-0500, GB: PTFE covering O ring

Port	Code	Description	GM0002-0050			GM0090-0500			GB0080-0450			GB0500-1200			GB1500			GB1800		
			PVC	PVDF	316	PVC	PVDF	316	PVC	PVDF	316	PVC	PVDF	316	PVC	PVDF	316	PVC	PVDF	316
P		NPT threaded port	---	---	1/2" F	1/2" F	1/2" F	1/2" F	1/2" F	1" F	1" F	1" F	1" F	1" F	1" F	1" F	1" F	1" F	1" F	
Q		The inner pipe mouth hard tube intubation port	DN15	---	---	DN15	---	---	DN15	---	---	DN25	---	---	DN25	---	---	---	---	
R		Intubation 6 x 12 Tube	6 x 12	6 x 12 <sup>1)</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
H		GM tube High viscosity application dedication	15 x 23 9 x 12	---	---	DN15	---	---	---	---	---	---	---	---	---	---	---	---	---	
X		Special port	Consult CNP, indicate when ordering																	

Dash area is standard configuration, firstly: high viscosity pump head V, sizing agent K, mixture pump head M, if no special optional, choose port according hydraulic end (\*), the default features configured tube is PVC material, if need PVDF tube (6m), order additionally, and enquiry to factory.

Motor	Code	Description ( GM )	Description ( GB )
1		250W, IEC71, 1440rpm, 3-50-220/380V, IP55/F/TEFC	550W, IEC71, 1440rpm, 3-50-220/380V, IP55/TEFC
2		1/3hp, NEMA 56C, 1440rpm, 3-50-220/380V, NEMA 3/TEFC	1hp, NEMA 56C, 1440rpm, 3-50-220/380V, NEMA 3/TEFC
3		370W, IEC71, 1440rpm, 3-50/380V, IP55/F/TEFC/Ex-dII BT4	550W, IEC71, 1440rpm, 3-50-220/380V, IP55/F/TEFC/Ex-dII BT4
4		370W, IEC71, 1440rpm, 3-50-220/380V, IP55/F/TEFC	750W, IEC80, 1440rpm, 3-50-220/380V, IP55/F/TEFC
5		250W, Capacitor start type, IEC71, 1440rpm, 1-50-220V, IP55/F/TEFC	750W, IEC80, 1440rpm, 3-50-220/380V, IP55/F/TEFC/Ex-dII BT4
6		250W, IEC71, 1440rpm, 3-50-200/400V, 3-60-230/460V, IP55/F/TEFC	550W, Capacitor start type, IEC80, 1440rpm, 1-50-220V, IP55/F/TEFC
7		370W, IEC71, 1440rpm, 3-50-220/380V, 3-60-230/460V, IP55/F/TEFC	750W, Capacitor start type, IEC80, 1440rpm, 1-50-220V, IP55/F/TEFC
8		---	550W, IEC80, 1440rpm, 3-50-220/380V, IP55/F/TEFC
9(5)		Pump default without motor, retain IEC71 port	Pump default without motor, retain IEC71 port
9(6)		370W, Capacitor start type, IEC71, 1440rpm, 1-50-220V, IP55/F/TEFC	---
9(8)		---	Pump default without motor, retain IEC80 port
9		Other, pls consult CNP company	Other, pls consult CNP company

Single phase motor can not be used with the motor switch at the same time.

Adjustment	Code	Description ( GM )	Description ( GB )	Remarks
M		Manual stroke adjusting	Manual stroke adjusting	---
N		Electric stroke adjusting, 4-20mA, 220VAC-1Ph	Electric stroke adjusting, 4-20mA, 220VAC-1Ph	---
E		---	Electric stroke adjusting, 4-20mA, 220VAC-1Ph, Ex, Proof	---
F		Frequency conversion control	Frequency conversion control	---
T		Motor switch controller and electric stroke adjusting	---	Apply to GM series
P		Motor switch controller ( 1Ph-50Hz-220VAC)	---	Apply to GM series

Baseplate	Code	Description ( GM )	Description ( GB )	Remarks
N		No baseplate	No baseplate	---
Y		Baseplate(2)	Baseplate	---

Options	Code	Description ( GM )	Description ( GB )	Remarks
N		No option	No option	---
A		Stroke count sensor	Stroke count sensor	---
B		The diaphragm rupture test and pressure gauge	The diaphragm rupture test and pressure gauge	Pressure gauge
C		The diaphragm rupture test and pressure gauge switch(2)	The diaphragm rupture test and pressure gauge switch	Normal pressure switch, including baseplate
D		The diaphragm rupture test and pressure gauge, explosion-proof pressure switch(2)	The diaphragm rupture test and pressure gauge, explosion-proof pressure switch	Normal pressure switch and pressure gauge, including baseplate
X		Other, pls consult CNP company	Other, pls consult CNP company	Special configuration in indicated in the contract

Remarks: This code is used for G series dosing pump made by CNP, this code apply to the usage in marketing.  
(2), GM series two diaphragm with pressure switch, default with baseplate, and should choose "N" in the options of baseplate