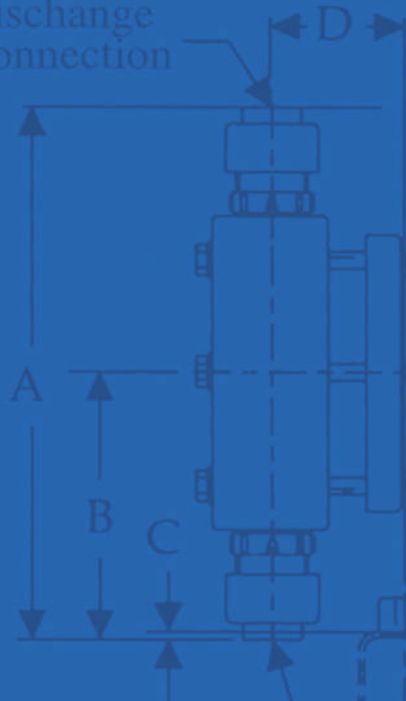




MILTON ROY

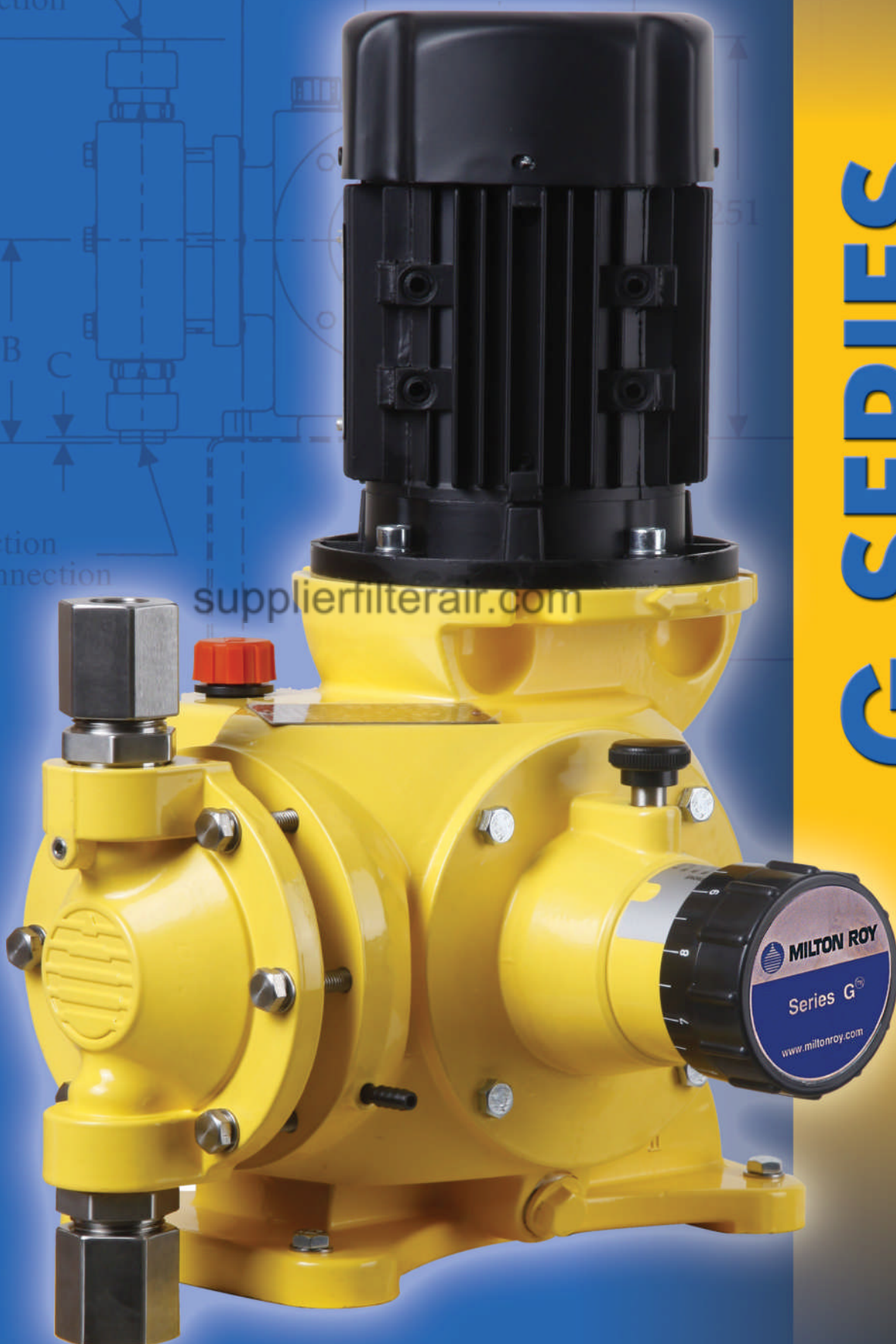
The Inventor of Metering Pump

Discharge
Connection



Suction
Connection

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Max. 550

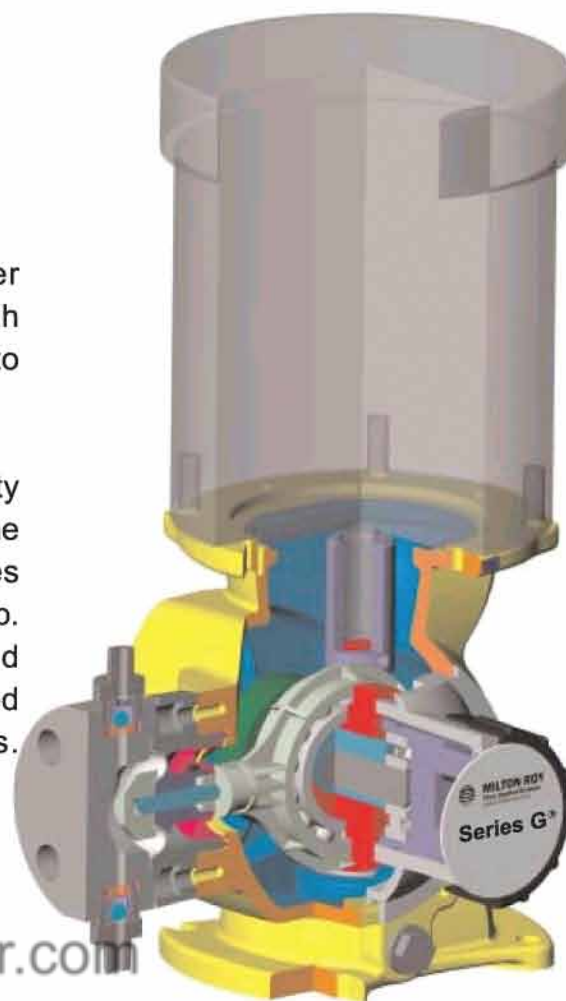
251

G SERIES

G SERIES

The G Series of metering pumps offer traditional Milton Roy reliability with outstanding value for applications up to 175 psi (12 Bar).

Milton Roy has combined its heavy-duty industrial drive technology with state of the art design and manufacturing processes in creating the G Series metering pump. This family of Mechanically Actuated Diaphragm metering pumps is designed for durability and cost effectiveness.



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MATERIAL OF CONSTRUCTION

• GM0002~GM0050

Liquid End	Head	Ball Guide	Seat	Ball Check	Diaphragm	O-rings	Connection
PVC	PVC	PVDF	PVDF	Ceramic	PTFE	Viton	PVC
PVDF	PVDF	PVDF	PTFE	Ceramic	PTFE	PTFE	PVDF
316 SS	PVDF	316 SS	316 SS	316 SS	PTFE	Viton	316 SS
Black PP	Black PP	PVDF	PVDF	Ceramic	PTFE	Viton	PVC

• GM0090~GM0500

Liquid End	Head	Ball Guide	Seat	Ball Check	Diaphragm	O-rings	Connection
PVC	PVC	PVC	PVC	Glass	PTFE	Viton	PVC
PVDF	PVDF	PVDF	PVDF	Ceramic	PTFE	PTFE	PVDF
316 SS	316 SS	316 SS	316 SS	316 SS	PTFE	Viton	316 SS
Black PP	Black PP	PVDF	PVDF	Glass	PTFE	Viton	PVDF

• GB0080~GB1500

Liquid End	Head	Ball Guide	Seat	Ball Check	Diaphragm	O-rings	Connection
PVC	PVC	PVDF/PVC	PVC	Ceramic	PTFE	Viton	PVC
PVDF	PVDF	PVDF	PVDF	Ceramic	PTFE	PTFE	PVDF
316 SS	316 SS	316 SS	316 SS	316 SS	PTFE	Viton/PTFE	316 SS

• GB1800

Liquid End	Head	Valve Body	Valve Stopper	Spring	Diaphragm	O-rings	Connection
PVC	PVC	PVC/PVC	PVC/PVC	Hastelloy C	PTFE	Viton	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	Viton	316 SS

PRODUCT CODE

Code Structure Series Capacity LE Connection Motor Adjustment Base Option

Series

Code	Description
GM	GM Series MAD Metering Pump
GB	GB Series MAD Metering Pump

Capacity

Code	LPH@P _{max}		SPM		Pmax	Motor Power
	50Hz	60Hz	50Hz	60Hz	bar	
0002	2.25	2.7	36	43	12	250W ⁽²⁾
0005	4.5	5.4	72	86		
0010	9	10.5	144	173		
0025	25	30	72	86		
0050	50	60	144	173	10	
0090	85	100	72	86	7	
0120	115	135	72	86		
0170	170	200	144	173		
0240	235	275	144	173		
0330	315	365	144	173	5	250W 370W ⁽²⁾
0400	400	480	144	173		
0500	500	520	180	187		

Note: (1) The gear/tvorn is different from that of 50Hz.

Code	LPH@P _{max}		SPM		Pmax	Power
	50Hz	60Hz	50Hz	60Hz	bar	
0080	82	98	36	43	10	550W 750W ⁽²⁾
0180	167	200	72	86		
0250	237	284	102	120		
0350	334	400	144	173		
0450	416	455 ⁽¹⁾	180	198	7	
0500	464	556	144	173		
0600	583	640 ⁽¹⁾	180	198		
0700	656	787	102	120	3.5	
1000	946	1136	144	173		
1200	1200	1300 ⁽¹⁾	180	198	3	750W
1500	1500	1650 ⁽¹⁾	180	198		
1800	1800	1730 ⁽¹⁾	206	198		

(2) Used for both constant & variable speed application

Liquid End

Code	Description
P	PVC Liquid End
S	316 Liquid End
T	PVDF Liquid End
B	Black PP Liquid End

Code	Description
V	High Viscosity (PVC LE material)
K	Slurry (316 Material GM0025~0500; PVC GB)
M	Mix (PVC LE Material GM)

Connection

Code	Description	GM0002-0050				GM0090-0500				GB0080-0450			GB0500-0600			GB0700-1200				GB1500-1800				
		PVC	PVDF	PP	316	PVC	PVDF	PP	316	PVC	PVDF	316	PVC	PVDF	316	PVC	D	S	D	S	D	PVC	PVDF	316
	section(S)/Discharge(D)	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S/D	S	D	S	D	S	D	S/D	S/D	S/D
P	NPT Threaded Connction	1/4"	---	1/4"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1"	1"	1"	1-1/2"	1"	1-1/2"	1"	1-1/2"	1"	1-1/2"	1-1/2"	1-1/2"
Q	Pipe	DN15	---	---	---	DN15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R	Hose Pipe 6X12	6X12	6X12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
H	GM Hose Pipe	15X23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	High Viscosity Application	9X12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
X	Special Connection	Consult Factory																						

Note: Standard configuration is bold letter marked in shadow.
Hose Pipe material is PE

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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/F/TEFC
2	Without motor, NEMA56C connection and standard test.	Without motor, NEMA56C connection and standard test.
3	250W/IEC71, 1440rpm, 3-50-380V, IP55/F/TEFC/Ex-dIIBT4	550W/IEC80, 1440rpm, 3-50-220/380V, IP55/F/TEFC/Ex-dIIBT4
4	370W/IEC71, 1440rpm, 3-50-220/380V, IP55/F/TEFC	750W/IEC80, 1440rpm, 3-50-220/380V, IP55/F/TEFC
5	250W/IEC71, 1440rpm, 1-50-220V, IP55/F/TEFC	750W/IEC80, 1440rpm, 3-50-220/380V, IP55/F/TEFC/Ex-dIIBT4
6	250W/IEC71, 1440rpm, 3-50-200/400, 3-60-230/460, IP55/F/TEFC	550W/IEC71, 1440rpm, 3-50-200/400V, 3-60-230/460, IP55/F/TEFC
7	370W/IEC71, 1440rpm, 3-50-220/400, 3-60-230/460, IP55/F/TEFC	750W/IEC80, 1440rpm, 3-50-200/400, 3-60-230/460, IP55/F/TEFC
8	-----	550W/IEC80, 1440rpm, 3-50-200/400V, 3-50-220/380, IP55/F/TEFC
9(1)	370W/IEC71, 1440rpm, 3-50-220/380V, IP55/F/TEFC/ExdIIBT4	550W/IEC71, 1440rpm, 3-50-200/400V, 3-60-230/460, IP55/F/TEFC/ExdIIBT4
9(2)	-----	750W/IEC80, 1440rpm, 3-50-200/400, 3-60-230/460, IP55/F/TEFC/ExdIIBT4
9(3)	250W/IEC71, 1440rpm, 3-50-200/400, 3-60-230/460, IP55/F/TEFC/ExdIIBT4	-----
9(4)	370W/IEC71, 1440rpm, 3-50-220/400, 3-60-230/460, IP55/F/TEFC/ExdIIBT4	-----
9(5)	Without motor, IEC71 connection and standard test.	Without motor, IEC71 connection and standard test.
9(6)	-----	-----
9(7)	-----	-----
9(8)	-----	Without motor, IEC80 connection and standard test.
9	Others, Consult with Factory	Others, Consult with Factory

Note: The single phase motor (GM) code: 5 needs 370W

Adjustment

Code	Description (GM)	Description (GB)	Remark
M	Manual Adjustment	Manual Adjustment	Standard Configuration
N	E-STROKE ECC, 4-20mA, 220V AC-1Ph	E-STROKE ECC, 4-20mA, 220V AC-1Ph	-----
A	E-STROKE ECC, 4-20mA, 115V AC-1Ph	E-STROKE ECC, 4-20mA, 115V AC-1Ph	-----
U	MRE STEGMANN ECC, 4-20mA, 220VAC-1Ph	MRA ECC, 4-20mA, 220V AC-1Ph	-----
G	MRE STEGMANN ECC, 4-20mA, 115V AC-1Ph	MRA ECC, 4-20mA, 115V AC-1Ph	-----
E	-----	MRA ECC, 4-20mA 220V AC-1Ph, Ex. Proof	suitable for GB Series
K	-----	MRA ECC, 4-20mA 115V AC-1Ph, Ex. Proof	suitable for GB Series
F	Variable Frequency Control, 4-20mA 3Ph, 230/380/415/440V	Variable Frequency Control, 4-20mA 3Ph, 230/380/415/440V	-----
T	Varipulse® Controller & E-STROKE Capacity Controller	-----	Used for all GM pumps
P	Varipulse® Controller ONLY	-----	Used for all GM pumps

Base

Code	Description	Remark
N	N/A	Standard Configuration
Y	Base Plate	GB

Options

Code	Description	Remark
N	N/A	Standard Configuration
A	Stroke Counter	-----
B	Double Diaphragm With Pressure Gauge	-----
C	Double Diaphragm With non ex-proof Pressure Switch(2)	with base
D	Double Diaphragm With Pressure Gauge&non ex-proof Pressure Switch(2)	with base
X	Others	Special Requirement Consult Factory

Note:

*For any special requirement, please consult with Regional Manager or Engineer in the factory

Technical Specifications

- Mechanically actuated PTFE diaphragm
- Flow rates up to 1800 LPH, pressure up to 12 bar
- Adjustment of flowrate from 0% ~ 100% while running or stopped
- Accuracy +/-2% of 100% rated flow
- Maximum temperature of pumped fluid : 40 °C
- Maximum suction lift up to 3 m water, max. suction pressure 2 bar

Features & Benefits

- Mechanical actuated diaphragm design eliminates contour plates
- Variable eccentric drive mechanism for smooth sinusoidal flow
- Rugged construction designed to withstand tough environments
- Oil bath lubrication for all of drive components
- Lockable micrometer stroke, adjustment can be adjusted while pump is running or stopped
- PVC, PVDF & 316SS liquid end material
- Self- cleaning suction/discharge check valve
- Simplified service-easy access to the main components, large opening and few assemblies

Automatic Capacity Control Options

- Electrical Capacity Control : Accept external control signal to adjust the stroke length
Power Supply : 220V-50/60Hz-Single Phase
Input Signal : 4-20mA
- Variable Speed Device : Accept external control signal to adjust the stroke speed
Power Supply : 380/500VAC-50/60Hz-three phase
Input Signal : 4-20mA
- Motor Controller :
"ON/OFF" control the motor (three phase) to adjust the flowrate
Power Supply : 200/240V-50/60Hz-single phase
Input Signal : 4-20mA/Pulse Signal/Manual

Other Options

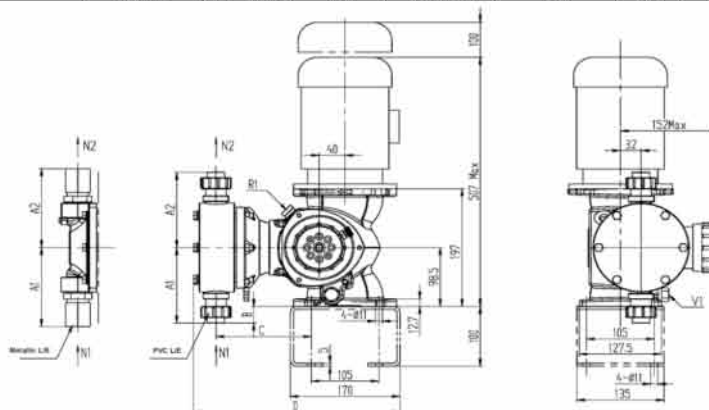
- Double diaphragm
- Stroke Counter
- Material for special applications



GM Series Pump with Motor Controller

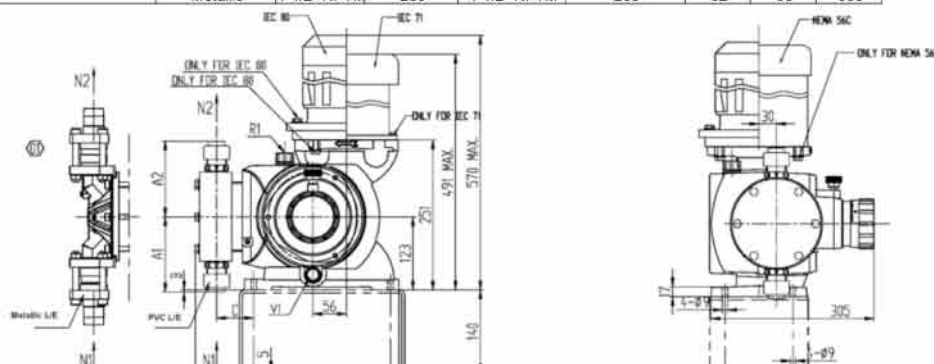
GM Series

Pump Size	Material	Connection				B	C	D
		N1	A1	N2	A2			
GM0002 ~ GM0010	Plastic	6 x 12	108	6 x 12	108	9.5	104	250
	High Viscosity	1/4" NPTM	72	1/4" NPTM	72	-26.5	104	250
	Metallic	15 x 23	84	9 x 12	105	-14.5	104	250
	Metallic	1/2" NPTF	102	1/2" NPTF	102	3.5	104	250
GM0025 ~ GM0050	Plastic	6 x 12	108	6 x 12	108	9.5	104	250
	High Viscosity	1/4" NPTM	72	1/4" NPTM	72	-26.5	104	250
	Metallic	15 x 23	86	9 x 12	108	-12.5	104	250
	Metallic	1/2" NPTF	102	1/2" NPTF	102	3.5	104	250
GM0090 ~ GM0500	Plastic	1/2" NPTF	127	1/2" NPTF	127	28.5	148	320
	High Viscosity	DN15	127	DN15	127	28.5	148	320
	Metallic	1/2" NPTF	127	1/2" NPTF	127	28.5	148	320
	Metallic	1/2" NPTF	131	1/2" NPTF	131	32.5	148	315



GB Series

Pump Size	Material	Connection				B	C	D
		N1	A1	N2	A2			
GB0080 ~ GB0450	Plastic	1/2" NPTF	125	1/2" NPTF	125	2	63	333
	High Viscosity	DN15	125	DN15	125	2	63	333
	Metallic	1/2" NPTF	125	1/2" NPTF	154	2	63	333
	Metallic	1/2" NPTF	130	1/2" NPTF	130	8	63	333
GB0500 ~ GB0600	Plastic	1" NPTF	144	1" NPTF	144	21	72	351
	High Viscosity	DN25	144	DN25	144	21	72	351
	Metallic	1" NPTM	144	1" NPTM	185	21	72	351
	Metallic	1" NPTM	181	1" NPTM	181	58	76	360
GB0700 ~ GB1200	Plastic	1-1/2" NPTF	188	1" NPTF	182	65	94	370
	High Viscosity	1-1/2" NPTF	188	1" NPTF	223	65	94	370
	Metallic	1-1/2" NPTM	200	1" NPTM	188	77	98	383
	Metallic	1-1/2" NPTM	188	1-1/2" NPTF	188	65	94	370
GB1500	High Viscosity	1-1/2" NPTF	188	1-1/2" NPTF	232	65	94	370
	Metallic	1-1/2" NPTM	200	1-1/2" NPTM	200	77	98	383
GB1800	Plastic	1-1/2" NPTF	211	1-1/2" NPTF	211	88	94	370
	Metallic	1-1/2" NPTM	205	1-1/2" NPTM	205	82	98	383



Weight

Pump with motor		Metal LE		Plastic LE	
		Net WT (kgs)	Gross WT (kgs)	Net WT (kgs)	Gross WT (kgs)
GM	2-10	22	25	19	22
	25-50	23	26	20	23
	90-500	25	28	21	24
	Add Ecc			+5	
	without 0.25 motor			-6	
GB	without 0.37 motor			-7	
	80-450	42	47	39	43
	500-1200	45	50	41	45
	1500-1800	48	53	44	48
	without 0.55 motor			-8	
	without 0.75 motor			-10	

Shipping Dimensions

GM	460 x 360 x 555 (mm)
GB	610 x 410 x 700 (mm)



G SERIES, DEPENDABLE AND VERSATILE

The G Series of pumps has proven its exceptional value over years of solid performance in a wide range of applications and industries. Water treatment chemicals, process additives, acids, out-gassing fluids, slurries, and many more applications are all handled with ease by this robust metering pump design. Your local representative can assist you in applying the G Series metering pump to your process.



Hamilton Sundstrand Singapore Industrial Pte Ltd

23 Tagore Lane, #03-06

Singapore 787601

Tel : (65)-6455 7559 Fax : (65) 6243 4249

Email : mrapsing@miltonroy.com.sg

Thailand

1858/63-74 Nation Tower, 14th Floor

Room A, Bangna-Trad Road, K.M. 4.5

Bangna, Bangkok 10260, Thailand

Tel : 662-7629222 Ext.3200 Fax : 662-7514720

Korea

Suite 1417, Sungji Hytz Building III,

#642-6, Yeoksam-dong, Kangnam-gu,

Seoul, Korea.

Tel : 82-02-557-1110 Fax : 82-02-557-1115

Distributed By :

ACCESSORIES

Pulsation Dampeners

Minimize pressure and flow surges in the pump discharge. When applied to pump inlet, more favorable NPSH conditions result.



Calibration Columns

Allow periodic verification of pump performance during routine checks or after system maintenance.

Safety Valves

Protect pump and piping from overpressure.



Back Pressure Valves

Provide smooth, artificial pressure in pump discharge line for atmospheric or low pressure systems to ensure pumping accuracy.