

METERING PUMPS

G SERIES



QINGDAO NUODEAN FLUID EQUIPMENT CO.,LTD

Company Profile:



Qingdao Nuodean Fluid Equipment Co.,Ltd, located in Qingdao City of China, is a professional company, engaged in development, production, sales and service of diaphragm pumps, metering pumps, drum pumps, etc. Our company has independent intellectual property rights and trademarks.

NUODEAN's G Series of Metering Pumps offer reliability with outstanding value for applications up to 175 psi (12 bar). This family of Mechanically Actuated Diaphragm metering pumps is designed for durability and cost effectiveness.

This mechanically-actuated diaphragm pump eliminates flow restrictions, reduces the possibility of hydraulic oil contamination of process liquid, and ensures smooth output.

The G Series of Metering pumps has proven its exceptional value 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.

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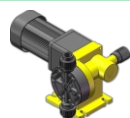
GM Series

Mechanically Actuated Diaphragm Metering Pump



GB Series

Mechanically Actuated Diaphragm Metering Pump



GW Series

Mechanically Actuated Diaphragm Metering Pump



GM & GB SERIES

● Performance

- Maximum Capacity: 1800L/h
- Maximum Pressure Rating: 12bar
- Adjustable Range: 30%-100%, Steady State Accuracy : $\pm 1\%$
- Typical Maximum Lift: 3 meters (H₂O)
- Maximum Suction Pressure: 2bar
- Maximum Ambient Temperature: +40°C

● Features And Specifications

Drive End

- A variable eccentric drive with stroke adjustment.
- Durable, metallic housing designed to withstand tough environments.
- Wear-resistant ball bearings, to ensure more stable operation.
- All gear components operate in an oil bath for long life.
- Precision stroke adjustment can be operated while the pump is running or stopped. The adjustment mode can be manual, electric or variable frequency.

Liquid End

- Mechanically Actuated Diaphragm liquid end eliminates flow restrictions.
- This reliable pumps requires minimal maintenance, reducing overall pump lifecycle costs.

● Capacity Adjustment:

- Electronic capacity control accepting input to adjust stroke length.
Power: 220V/Single Phase、50Hz
Input: 4-20mA
Output: 4-20mA/1-5V
- A frequency conversion controller accepting external control signals to adjust stroke speed.
Power: 380V/Three Phase、220V/Single Phase、50Hz
Input: 4-20mA
- The switch controller, controlling the three-phase motor in the "on/off" mode to adjust the flow rate.

● Application

- Environmental, Petrochemical Industry, Chemical Industry, Water And Waste Treatment, Industrial Process, Agriculture, And many more applications.

● Accessories

- Strainer, Calibration Columns, Pulsation Dampeners, Safety valves, Back Pressure Valves, etc.
- For the metering pump with PVC fluid end of GM0002-GM0050 Series, Injection valve, bottom valve, counterweight and 6mm soft pipe will be equipped together with metering pump.

● Standard Motor

- Power: 380V/Three phase、220V/Single phase、50Hz
- Protection: IP55
- Insulation class: F Grade
- All motors comply with IEC standards of the International Electrotechnical association or NEC standards of the National Electrical Commission of the United States

● Available options

- Double diaphragm pump head
- Double diaphragm rupture pressure gauge detection and pressure switch detection
- Stroke counting sensor
- PNP output / NPN output / relay output



GM SERIES OF METERING PUMP



GB SERIES OF METERING PUMP

GM & GB SERIES

MATERIAL OF LIQUID END

GM0002-GM0500

MATERIAL	CHECK VALVE	SEATS	BALLS	DIAPHRAGM	SEALS	CONNECTION
PVC	PVC	PVDF	zirconia	PTFE	FPM/EPDM*/PTFE coated O-ring*	PVC
PVDF	PVDF	PVDF	zirconia	PTFE	FPM/EPDM*/PTFE coated O-ring*	PVDF
316SS	316SS	316SS	316SS	PTFE	FPM/EPDM*/PTFE coated O-ring*	316SS

* : Option

GB0080-GB1200

MATERIAL	CHECK VALVE	SEATS	BALLS	DIAPHRAGM	SEALS	CONNECTION
PVC	PVC	PVDF	zirconia	PTFE	FPM/EPDM*/PTFE coated O-ring*	PVC
PVDF	PVDF	PVDF	zirconia	PTFE	FPM/EPDM*/PTFE coated O-ring*	PVDF
316SS	316SS	316SS	316SS	PTFE	FPM/4F/EPDM*/PTFE coated O-ring*	316SS

* : Option

GB1500-GB1800

Material of Liquid End	Valve Body	Valve Cover	Valve Seat	Valve Plate	Spring	Diaphragm	Seals	CONNECTION
PVC	PVC	PVC	PVDF	PVC	Hastelloy C-276	PTFE	FPM/EPDM*	PVC
PVDF	PVDF	PVDF	PVDF	PVDF	Hastelloy C-276	PTFE	FPM/EPDM*	PVDF
316SS	316SS	316SS	316SS	316SS	Hastelloy C-276	PTFE	4F	316SS

* : Option

GM 、 GB SERIES PRODUCT CODE

SERIES Capacity Liquid End Connections Motor Adjustment Base Option

● SERIES

CODE	DESCRIPTION	CODE	DESCRIPTION
GM	GM SERIES OF Mechanically Actuated Diaphragm Metering Pump	GB	GB SERIES OF Mechanically Actuated Diaphragm Metering Pump

● CAPACITY

CODE	Max. Flow Rate (L/h)	Max. Pressure (bar)	Stroke Counting/min	Motor(kW)
GM0002	2.25	12	36	0.25 ■ 0.37 ■
GM0005	4.5		36	
GM0010	9		36	
GM0025	25	10	72	
GM0050	50		144	
GM0090	85		72	
GM0120	115	7	72	0.37 ■
GM0170	170		144	
GM0240	235		144	
GM0330	315	5	144	
GM0400	400		144	
GM0500	500		180	
GB0080	82	10	36	0.55 ● 0.75 ●
GB0180	167		72	
GB0250	237		102	
GB0350	334	7	144	
GB0450	416		180	
GB0500	464		144	
GB0600	583	3.5	180	0.75
GB0700	656		102	
GB1000	946		144	
GB1200	1200	3	180	
GB1500	1500		180	
GB1800	1800		206	

■ This power is used for three-phase constant speed motors

■ This power is used for single-phase, explosion-proof and variable frequency motors

● This power is used for three-phase constant speed, explosion-proof motor

● This power is used for single-phase, variable frequency motors



GM & GB SERIES

LIQUID END

CODE	DESCRIPTION	CODE	DESCRIPTION
P	PVC	V	High viscosity applications : PVC
S	Stainless Steel 316	K	Slurry application : GM0025-0500 316 ; GB PVC
T	PVDF	M	Mixture application, GM : PVDF
F	Application of sodium hypochlorite : PVC	Z	For special liquid end, please consult the factory and indicate when ordering

- GM、GB SERIES : EPDM O-Ring

CONNECTIONS

CODE	DESCRIPTION	GM0002-0050			GM0090-0500			GB0080-0450			GB0500-1200			GB1500-1800		
		PVC	PVDF	316	PVC	PVDF	316	PVC	PVDF	316	PVC	PVDF	316	PVC	PVDF	316
P	NPT SCREWED	1/2"F	1/2"F	1/2"F	1/2"F	1/2"F	1/2"F	1/2"F	1/2"F	1/2"F	1"F	1"F	1"M	1-1/2"F	1-1/2"F	1-1/2"M
Q	Hard Tubing	DN15	---	---	DN15	---	---	DN15	---	---	DN25	---	---	DN40	---	---
R	Soft Tubing	6X12	6.35x9.52	---	---	---	---	---	---	---	---	---	---	---	---	---
H	GM hose for high viscosity applications	12X18	---	---	20x28	---	---	---	---	---	---	---	---	---	---	---
X	Special	Please consult the factory and indicate when ordering														

Note: the parameters in red are standard configuration. If there are no special options for high viscosity pump head V, slurry pump head K and mixture pump head M, the connection shall be selected according to the material of the hydraulic end.

- PVC hose is 6m long / piece; Factory default configuration: 1 hose
- The factory configuration does not include injection valve, bottom valve, counterweight and Teflon hose. Please order additional and inquire from the factory.

MOTOR

CODE	DESCRIPTION FOR GM	DESCRIPTION FOR GB
1	0.25kW, IEC71, Three Phase 380V, 50Hz, 1440rpm, IP55/F	0.55kW, IEC71, Three Phase 380V, 50Hz, 1440rpm, IP55/F
2	1/3 HP, NEMA56C, Three Phase 380V, 50Hz, 1440rpm, NEMA3/TEFC	1 HP, NEMA56C, Three Phase 380V, 50Hz, 1440rpm, NEMA3/TEFC
3	0.37kW, IEC71, Three Phase, Explosion-proof 380V, 50Hz, 1440rpm, IP55/F, dIIbT4	0.55kW, IEC80, Three Phase, Explosion-proof 380V, 50Hz, 1440rpm, IP55/F, dIIbT4
4	0.37kW, IEC71, Three Phase 380V, 50Hz, 1440rpm, IP55/F	0.75kW, IEC80, Three Phase 380V, 50Hz, 1440rpm, IP55/F
5	0.25kW, IEC71, Single Phase 220V, 50Hz, 1440rpm, IP55/F	0.75kW, IEC80, Three Phase, Explosion-proof 380V, 50Hz, 1440rpm, IP55/F, dIIbT4
6	0.25kW, IEC71, Three Phase, Variable frequency 380V, 50Hz, 1440rpm, IP55/F, IC416	0.55kW, IEC80, Single Phase 220V, 50Hz, 1440rpm, IP55/F
7	0.37kW, IEC71, Three Phase, Variable frequency 380V, 50Hz, 1440rpm, IP55/F, IC416	0.75kW, IEC80, Single Phase 220V, 50Hz, 1440rpm, IP55/F
8	-----	0.55kW, IEC80, Three Phase 380V, 50Hz, 1440rpm, IP55/F
9 (5)	Without motor, and IEC71 interface is reserved	Without motor, and IEC71 interface is reserved
9 (6)	0.37kW, IEC71, Single Phase 220V, 50Hz, 1440rpm, IP55/F	-----
9 (8)	-----	Without motor, and IEC80 interface is reserved
9	For other motors, please consult the factory	For other motors, please consult the factory

Note: single phase motor cannot be used together with switch controller.

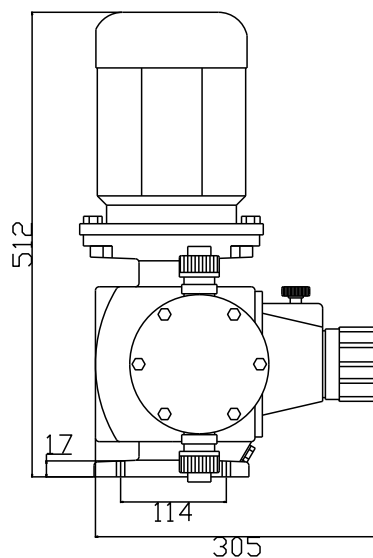
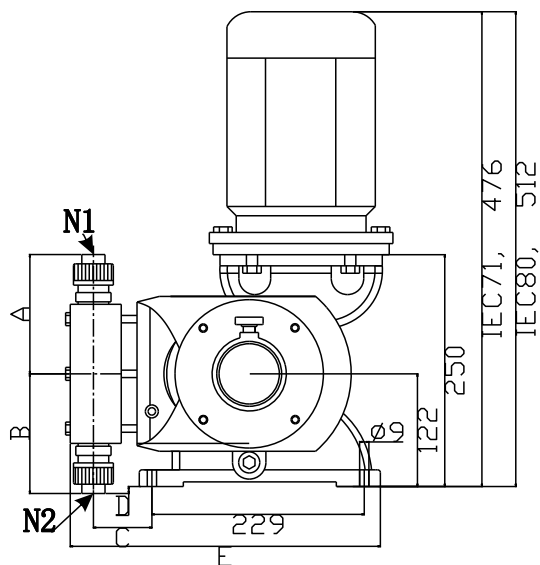
ADJUSTMENT

CODE	GM	GB	NOTE
M	Manual Stroke Adjustment	Manual Stroke Adjustment	Standard configuration
N	Electric stroke adjustment, 4-20mA, 1PH-50Hz-220V	Electric stroke adjustment, 4-20mA, 1PH-50Hz-220V	-----
E	-----	Electric stroke adjustment, 4-20mA, 1PH-50Hz-220V, Ex.Proof	-----
F	Frequency conversion control	Frequency conversion control	-----

GM & GB SERIES

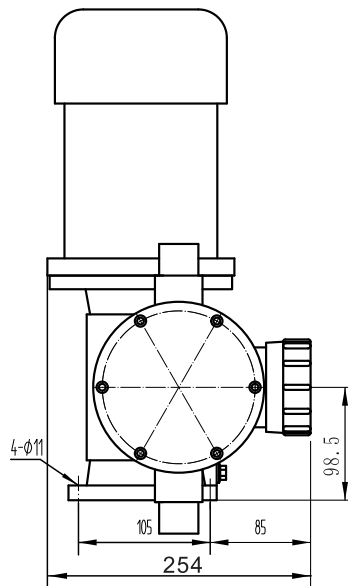
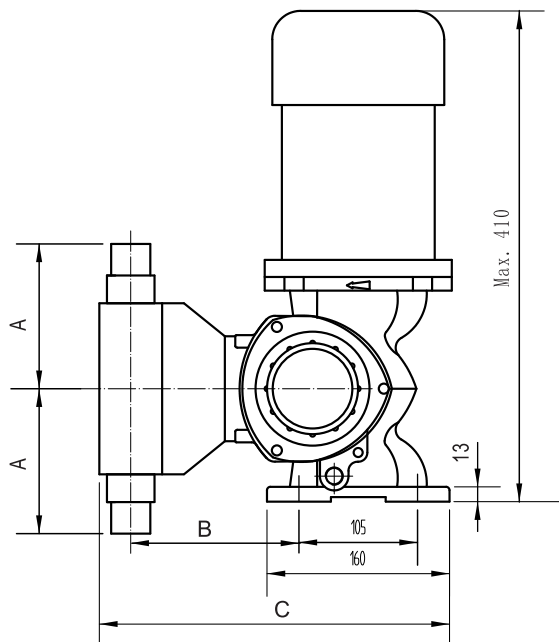
GB Pump

Model	GB40(80-450)		GB60(500-600)		GB80(700-1200)		GB80(1500)		GB80(1800)	
Dim	Plastic	Metallic	Plastic	Metallic	Plastic	Metallic	Plastic	Metallic	Plastic	Metallic
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 DN15 (PVC pump head only)	1/2"F NPT	1"F NPT DN25 (PVC pump head only)	1"M NPT	1"F NPT DN25 (PVC pump head only)	1"M NPT	1"F NPT	1 1/2"M NPT	1 1/2"F NPT	1 1/2"M NPT



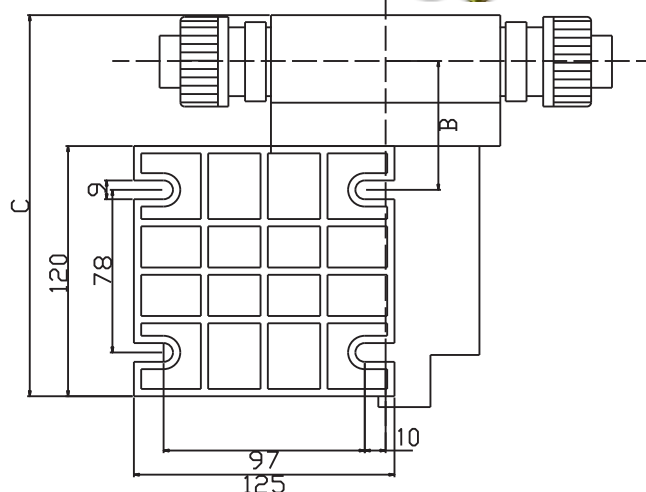
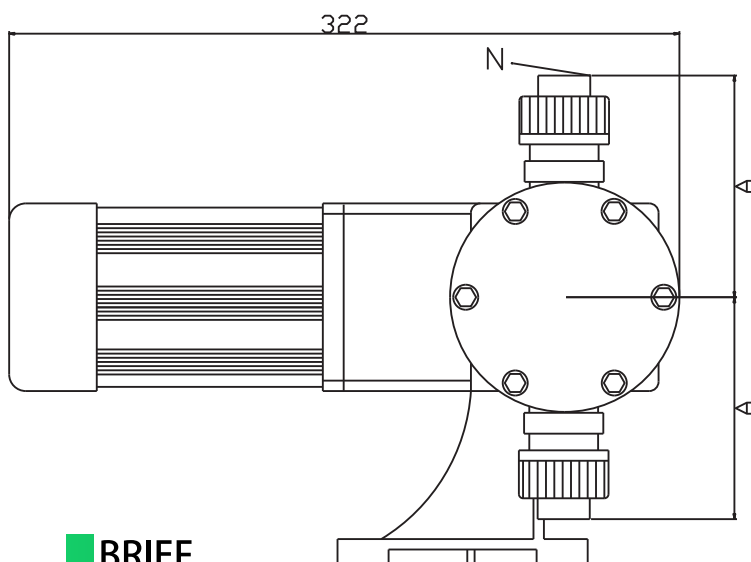
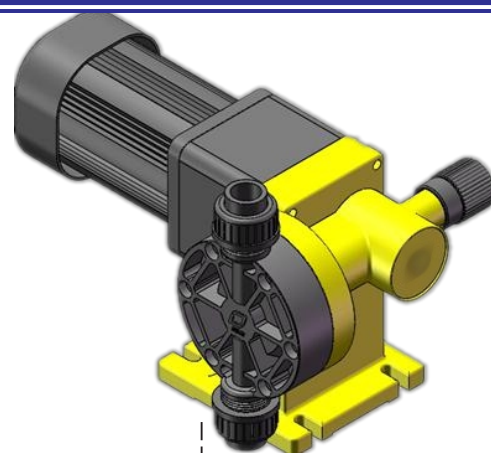
GM Pump

Material of Pump Head	GM0002-GM0050				GM0090-GM0500			
	Connections	A	B	C	Connections	A	B	C
PVC	P	108	116	250	Q	127	159	322
PVDF	P	108			N	131		
316	N	102			N	131		



GW SERIES

Liquid End	GW6.5-GW40					GW60-GW180				
	Connection	A	B	C	N	Connection	A	B	C	N
PVC	L	98	61	183	12.7*9.5	Q	106	62	183	DN15
PVDF	R	107	61	183	12*7	P	108	62	183	1/2"
316	P	109	61	183	1/2"	P	109	62	183	1/2"



BRIEF

- The casing adopts aluminum alloy precision die casting process, and the surface is powder coated, which is durable and anti-corrosion.
- Easy installation, low maintenance cost.
- high safety performance

SPECIFICATION

CAPACITY: 6.5~180L
 PRESSURE: 4 - 10bar
 POWDER: ELECTRIC

WORKING CONDITIONS

Ambient Temperature: -10 °C ~ +45 °C
 Power: single phase 220V; three phase 380V
 Rating: 60~90W
 Connection: Dn15 hard pipe

CONNECTION	CODE	DESCRIPTION	GW6.5-GW180		
			PVC	PVDF	316
	P	NPT	1/2"F		1/2"F
	Q	Inner nozzle hard tube intubation DN15	DN15		
	R	Plug in 9*15 hose	9*15		

Liquid End	CODE	DESCRIPTION
	P	PVC
	S	316SS
	T	PVDF

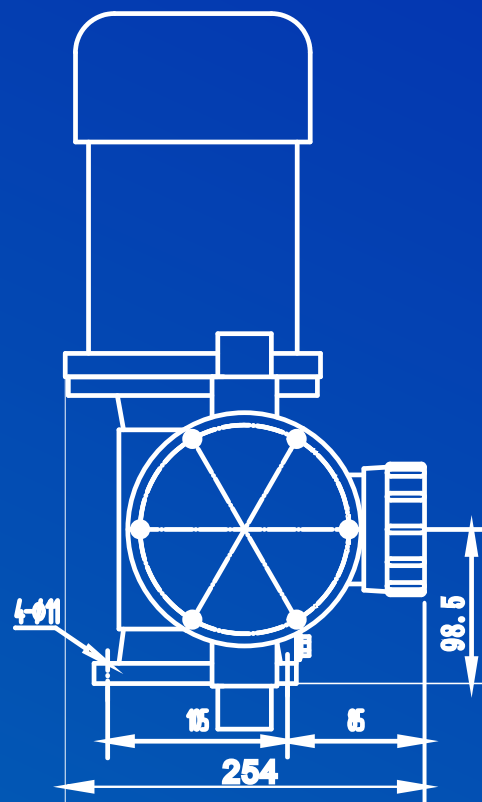
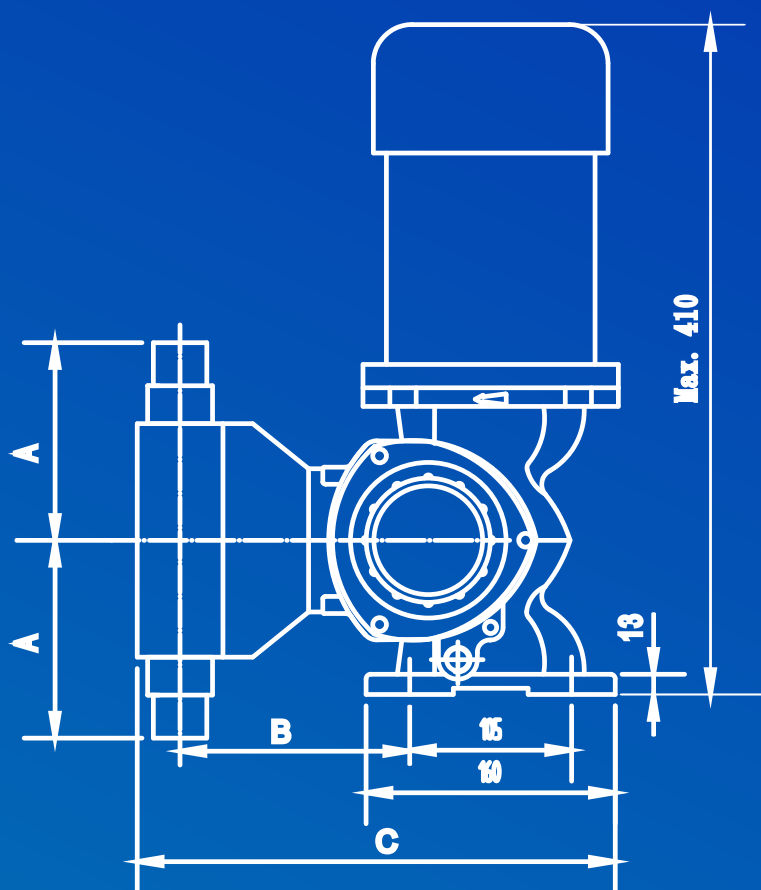
GW SERIES

MATERIAL WETTED PARTS

HEAD: PVC /PVDF/316SS	DIAPHRAGM: PTFE	VALVE BODY: PVC
BALL: Ceramics/PTFE	VALVE SEAT: PTFE	VALVE SPRING:Hastelloy
SEALS: FPM/EPDM		

DATA

GW	Presssure(bar)	Materialof Head	Capacity(L)	Motor(W)
GW6.5/1PQ	10bar	PVC	6.5L	60
GW12/1PQ	10bar	PVC	12L	60
GW24/1PQ	10bar	PVC	24L	60
GW32/0.8PQ	8bar	PVC	32L	60
GW40/0.8PQ	8bar	PVC	40L	60
GW60/0.8PQ	8bar	PVC	60L	90
GW80/0.5PQ	5bar	PVC	80L	90
GW100/0.5PQ	5bar	PVC	100L	90
GW120/0.4PQ	4bar	PVC	120L	90
GW150/0.4PQ	4bar	PVC	150L	90
GW180/0.4PQ	4bar	PVC	180L	90
GW6.5/1SP	10bar	316	6.5L	60
GW12/1SP	10bar	316	12L	60
GW24/1SP	10bar	316	24L	60
GW32/0.8SP	8bar	316	32L	60
GW40/0.8SP	8bar	316	40L	60
GW60/0.8SP	8bar	316	60L	90
GW80/0.5SP	5bar	316	80L	90
GW100/0.5SP	5bar	316	100L	90
GW120/0.4SP	4bar	316	120L	90
GW150/0.4SP	4bar	316	150L	90
GW180/0.4SP	4bar	316	180L	90



QINGDAO NUODEAN FLUID EQUIPMENT CO.,LTD

Add: No.125-16 Tieqishan Road, Xifuzhen Subdistrict, Chengyang District, Qingdao, Shandong, China

Tel: +86-532-66731226

Fax: +86-532-66731227

Mobile: +86-15192098891

E-Mail: sales@nuodeanpump.com

http://www.nuodeanpump.com

SN: NUODEAN-EN-G-202108