

Metering Pump



德帕姆(杭州)泵业科技有限公司
Depamu (Hangzhou) Pumps Technology Co., Ltd.

克尼罗瓦(杭州)工业设备有限公司
Conilowa(Hangzhou)Industrial Equipment Co., Ltd.

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德帕姆(杭州)泵业科技有限公司
Depamu (Hangzhou) Pumps Technology Co.,Ltd.

Depamu
Pacesetter of Fluid
Equipment in the World



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Products

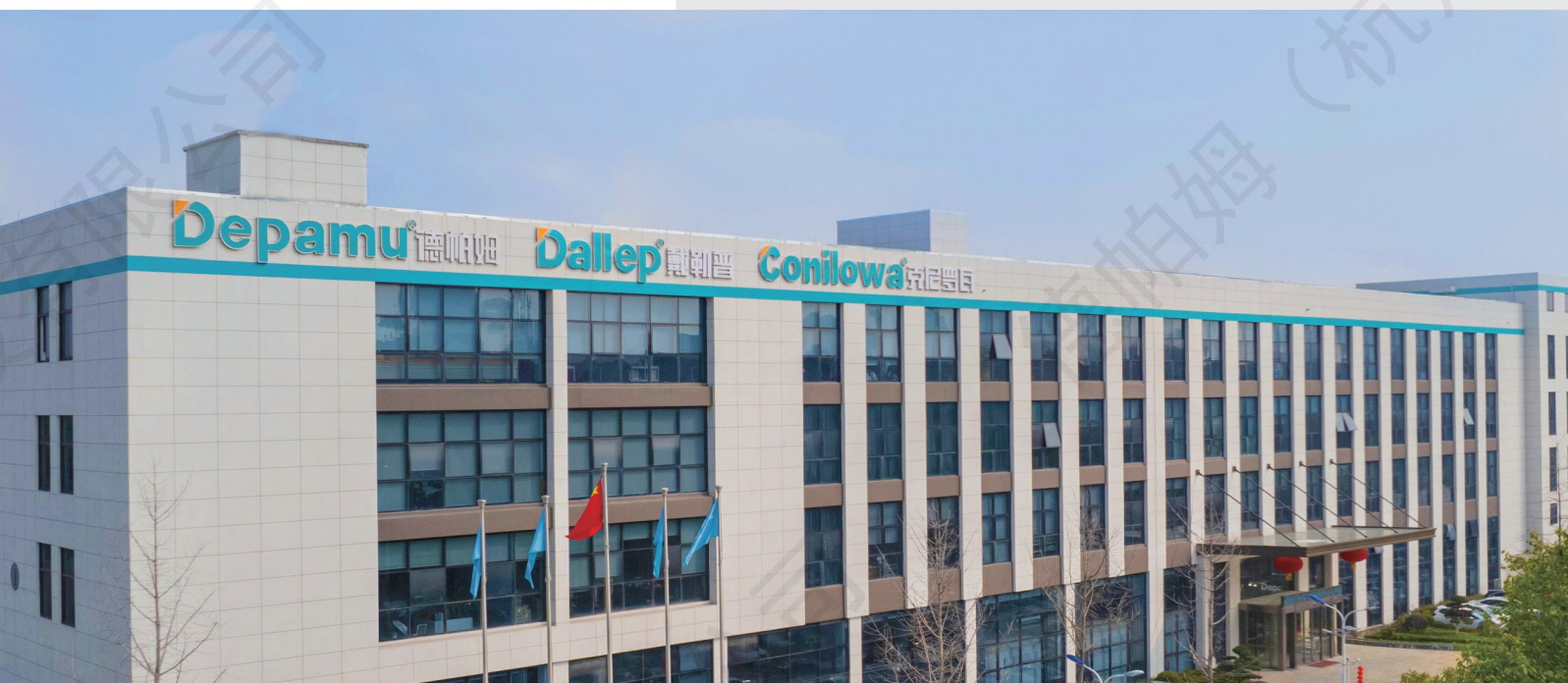
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Enterprise Profile

Depamu (Hangzhou) Pumps Technology Co., Ltd., located in Hangzhou Qiantang District, is a high-tech enterprise specialized in R & D, production and sales of main products including metering pumps, high-pressure process reciprocating pumps (plunger/diaphragm/hose), electric diaphragm pumps, pneumatic diaphragm pumps, screw pumps (one/two/three-screw), lobe pumps (rubber/metal), centrifugal pumps, chemical dosing packages, water-steam sampling equipment, supercritical fluid equipment and water treatment equipment, etc.

Through introduction of advanced technologies from Germany, the company has been devoted to research and development of fluid transfer equipment since establishment, and has successfully obtained over 100 technical patents through continuous technological innovation. The company has passed API, CE, EAC and ISO (9001/14001/45001) certifications; at the same time, it serves as a drafter of pump industry standards. The company has been awarded the National Key “Little Giant” Honor for Specialized, Sophisticated, Distinctive and Innovative SMEs and its high pressure process hose pumps have been identified as the Major Equipment (1st Set) Product underwritten by Ping An Insurance.

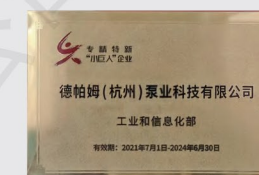
Presently, company products have been widely applied to oil & gas field exploitation, petroleum and gas refining and transportation as well as industries of nuclear power, military, chemical, electric power, pulp & paper, pharmaceutical, food, new energy, water treatment, etc. Based on establishment of long-term strategic partnerships with large-scale enterprises like CNPC, SINOPEC, CNOOC, CNNC, etc., products have been exported to over 50 countries and regions. The company aims to be the most competitive fluid equipment manufacturer in the world, and build Depamu into a century-old global brand.



Enterprise Qualification Certificates



Certificate of National High-tech Enterprise (P. R. C.)



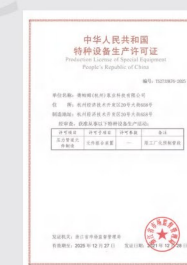
National Key “Little Giant” Honor for Specialized, Sophisticated, Distinctive and Innovative SMEs of the P. R. C.



China Pump Testing Center



Certificate of the Major Equipment (1st Set) Product in Zhejiang Province



Production License for Special Equipment (Pressure Pipe Component Manufacture)



Production License for Special Equipment (Pressure Vessel Manufacture)



Production License for Special Equipment (Industrial Pipe Installation)



API Certificate



EAC Certificate



CE Certificate



“Qualified Supplier of CNNC” Certificate



ISO 9001 Certificate



ISO 14001 Certificate



ISO 45001 Certificate



ISO 50001 Certificate



Invention Patent

Delicacy Management

Depamu has sold its products worldwide and kept a leading role in the industry based on advanced German management technologies, excellent technical R&D personnel, advanced production and processing equipment, delicacy management process as well as perfect service system.

Office



Assembly Shop



Finished Product Workshop



Excellent Team



Advanced Testing Equipment



Intelligence Warehouse Management



Advanced Processing Equipment



Careful Test



Meticulous Material Reinspection



Digital Processing Equipment



Digital Precision Processing



Application Fields

Depamu provides professional service for multiple key and high-end fields.



PetroChina:

PetroChina Daqing Petrochemical Company
PetroChina Daqing Refining Chemical Company
PetroChina Lanzhou Petrochemical Company
PetroChina Dushanzi Petrochemical Company
PetroChina Urumqi Petrochemical Company
PetroChina Karamay Petrochemical Company
PetroChina Fushun Petrochemical Company
PetroChina Liaohu Petrochemical Company
PetroChina Qingyang Petrochemical Company
PetroChina Liaoyang Petrochemical Company
PetroChina Sichuan Petrochemical Company Limited
PetroChina North China Petrochemical Company
Golmud Refinery of Qinghai Oilfield
PetroChina Harbin Petrochemical Company
PetroChina Jinxi Petrochemical Company
PetroChina Dalian Petrochemical Company
...



PetroChina Oil & Gas Fields:

Daqing Oilfield Material Company
PetroChina Changqing Oilfield Company
PetroChina Jilin Oilfield Company
PetroChina Tarim Oilfield Company
PetroChina Qinghai Oilfield Company
PetroChina Yumen Oilfield Company
PetroChina Zhejiang Oilfield Company
...



Sinopec:

Sinopec Zhenhai Refining & Chemical Company
Sinopec Shanghai Petrochemical Company Limited
Sinopec Shanghai Gaoqiao Company
Sinopec Qilu Company
Sinopec Tianjin Company
Sinopec Yangzi Petrochemical Company Limited
Sinopec Maoming Company
Sinopec Jiujiang Company
Sinopec North China Company
Sinopec Wuhan Company
Sinopec Changling Company
Sinopec Baling Company
Sinopec Zhanjiang Dongxing Petrochemical Company Limited
Sinopec Hainan Refining & Chemical Company Limited
Sinopec Tahe Refining & Chemical Company Limited
Sinopec Beihai Company
Sinopec Anqing Company
Sinopec Wuhan Company
Sinopec Jinling Company
...



Sinopec Oil & Gas Fields:

Sinopec Shengli Oilfield Company
Sinopec Southwest Petroleum & Natural Gas Company
Sinopec North China Petroleum Bureau
Sinopec Northeast Petroleum Bureau
Sinopec Zhongyuan Oilfield Company
Sinopec Henan Oilfield Company
...



CNOOC:

CNOOC Huizhou Oil Refining Project
CNOOC Zhoushan Petrochemical Ltd.
CNOOC (Taizhou) Petrochemical Ltd.
CNOOC Refinery Co., Ltd., Huizhou Refinery Branch
CNOOC Ningbo Daxie Petrochemical Co., Ltd.
Shandong Binzhou BEFAR Group
CNOOC Zhanjiang Fuel Oil Co., Ltd.
CNOOC New Energy (Hainan) Biological Energy Chemical Co., Ltd.
CNOOC Huahe Coal Chemical Co., Ltd.
CNOOC Tianye Petrochemical Ltd.
CNOOC Energy Technology & Services Limited, Oil Production Technical Service Branch
...



Chemical and Coal Chemical Industry:

Zhejiang Petroleum & Chemical Co., Ltd.
Yulong Petrochemical Co., Ltd.
ExxonMobil (Huizhou) Chemical Co., Ltd.
BASF Integrated Site (Guangdong) Co. Ltd.
China National Chemical Corporation
Shenhua Mengxi Huarui Chemical Co., Ltd.
Shenhua Ningxia Coal Industry Group Co., Ltd.
Zhongtian Hechuang Energy Co., Ltd.
Wanhua Chemical Group
Shenghong Petrochemical Group Co., Ltd.
Hengli Group
China National Bluestar (Group) Co., Ltd.
Shanxi Sanwei Group Co., Ltd.
Shandong Hualu Hengsheng Chemical Co., Ltd.
China Pingmei Shenma Group
Shanxi Weilai Energy Chemical Co., Ltd.
...



Nuclear Power, Military and Fluorine Chemical Industry:

Arkema (Changshu) Fluorine Chemicals Co., Ltd.
Do-Fluoride Chemicals Co., Ltd.
The 404 Company Limited, China National Nuclear Corporation
China Nuclear Power Technology Research Institute Co., Ltd.
CNNC Environmental Protection Engineering Design & Research Co., Ltd.
Jiangsu Meilan Chemical Group
Zhejiang Quhua Chemical Group
Shandong Dongyue Chemical Group
Changshu 3F Fluorochemical Industry Co., Ltd.
China National Chemical Corporation Ltd.
Qinshan Nuclear Power Station
China Nuclear Industry Fifth Construction Co., Ltd.
...



Iron and Steel Industry:

Wuhan Iron & Steel Co., Ltd.
Jilin Tongang Group
Jinan Iron & Steel Group
Laiwu Iron & Steel Group
Shougang Group
Shagang Group
Kungang Group
...



Electricity and Environmental Protection Industry:

Huadian Water Engineering Co., Ltd.
China Huaneng Group Co., Ltd.
Dongfeng Motor Corporation, Thermal Power Plant
Linyi City Yangguang Heating Power Co., Ltd.
Shandong Luneng Electric Power Co., Ltd.
Dalian Thermal Power Company
Shaoguan Pingshi Power Generation Plant
Ningbo Zhenhai Thermal Power Plant
Changsha Waste Water Treatment Plant
Xi'an Waste Water Treatment Plant
Jiaxing Waste Water Treatment Plant
Jiangsu Yihuan Group Co., Ltd.
Guang'an Power Plant
Datang Environment Industry Group Co., Ltd.
Everbright Environmental Protection Technical Equipment (Changzhou) Limited
Cscec Scimee Sci. & Tech. Co., Ltd.
...



Design Institutes and University Science Research Institutions:

China Huanqiu Contracting & Engineering Co., Ltd.
Sinopec Engineering Incorporation (SEI)
Sinopec Luoyang Petrochemical Engineering Corporation Ltd.
China Chengda Engineering Co., Ltd.
Hualu Engineering & Technology Co., Ltd.
Sinopec Ningbo Petrochemical Engineering Co., Ltd.
China Wuhuan Engineering Co., Ltd.
China Petroleum First Construction Corporation
China Petroleum Engineering & Construction Corporation, Huadong Design Branch
Zhejiang University
Xi'an Jiaotong University
Southeast University
China Jiliang University
Zhejiang Sci-Tech University
...



Food and Pharmacy Industry:

Hangzhou Wahaha Group Co., Ltd.
China Resources Snowflake Brewery Co., Ltd.
Guangzhou Zhujiang Brewery Group Co., Ltd.
Northeast Pharm Group Co., Ltd.
Zhejiang NHU Company Ltd.
Fujian South Pharmaceutical Co., Ltd.
Wufangzhai Group
Zhejiang Medicine Co., Ltd., Changhai Biological Company
...



Mining, Metallurgy and Energy Industry:

China ENFI Engineering Co., Ltd.
Lygend Resources & Technology Co., Ltd.
Zhejiang Huayou Chemical Co., Ltd.
GEM Co., Ltd.
Shanshan Energy (Ningxia) Co., Ltd.
Fujian Ningde Xinshidai New Energy Co., Ltd.
Shangluo BYD Industry Co., Ltd.
Qinghai Juzhiyuan New Material Co., Ltd.
Do-fluoride Chemicals Co., Ltd.
Jinchuan Group Co., Ltd.
Guangzhou Tinci Materials Technology Co., Ltd.
...



Export:

CNPC (Turkmenistan) Amu Darya River Gas Company
(SSKOC) Syria Kaukab Oil Company
Open Joint Stock Company
400,000t/a Bleached Kraft Pulp Plant Project in Svetlogorsk, Belarus
Hong Kong Sha Tin Water Supplies Department
Venezuela Bisilliat Combined Cycle Power Plant Project
100*108m3/a Commodity Gas Construction Project, South Yolotan, Turkmenistan
Afghanistan Kaskari Oilfield Exploitation
Iraq Missan Water and Oil Waste Water Treatment Project
Sudan Area 37
Indian Oilfield
Lordegan Urea Fertilizer Project, Iran
Mis Fertilizer Project, Iran
...

Clients



Product Structure Chart

Depamu metering pumps, a kind of reciprocating pumps evenly and stably transporting liquid in a measurable quantity, are widely applied to industries like petroleum, natural gas, chemical, electricity, environment protection, pharmaceutical, food, military, construction material, etc. and suitable for transportation of fluids with a high pressure, high temperature or strong corrosion, easy to volatile or crystallize, flammable, explosive, toxic or smelly, in a large specific gravity or high viscosity as well as radioactive metal.

Features

Max Discharge Pressure: 95 MPa

Max Discharge Flow Rate per Pump Head: 12100 L/h

Flow rate can be steplessly adjusted in the range of 0–100%;

Metering accuracy reaches $\pm 0.5\%$;

Good sealing performance without leakage;

A simple structure, convenient maintenance and high cost effectiveness.

A/Motor

Standard Motor
Explosion-proof Motor
Variable-frequency Motor

B/Integrated Worm Gear

Low noise, a high transmission efficiency, low energy consumption, a large torque, low maintenance cost and a long service life.

C/Adjustment Mode

Adjustment modes like manual, electrical, pneumatic and frequency conversion.

D/Adjustment Mechanism

The patented design of an integrated sleeve adjustable eccentric mechanism under a simple structure with double-end bearing support, a high transmission efficiency and a strong bearing capacity, able to run stably and reliably with a long service life and convenient maintenance; adjustment range: 0–100% stepless adjustment.

E/Internal Safety Valve

Due to absence of an external flow channel, it reduces leakage points, prevents from overpressure inside the hydraulic chamber, and ensures safe operation of the metering pump.

F/Check Valve

The metering accuracy of a metering pump depends on the quality of check valves. The design of check valves can meet requirements for all working conditions. Ball valves, flat valves and cone valves can be selected; and emery balls, special balls for hydrofluoric acid, etc. can be chosen for valve balls.

I/Alarm Device

T/Limit Valve

A limit valve is used to prevent the hydraulic chamber from excessive oil supply and avoid excessive deformation of the diaphragm, thus prolonging the service life of the diaphragm.

G/Pump Head

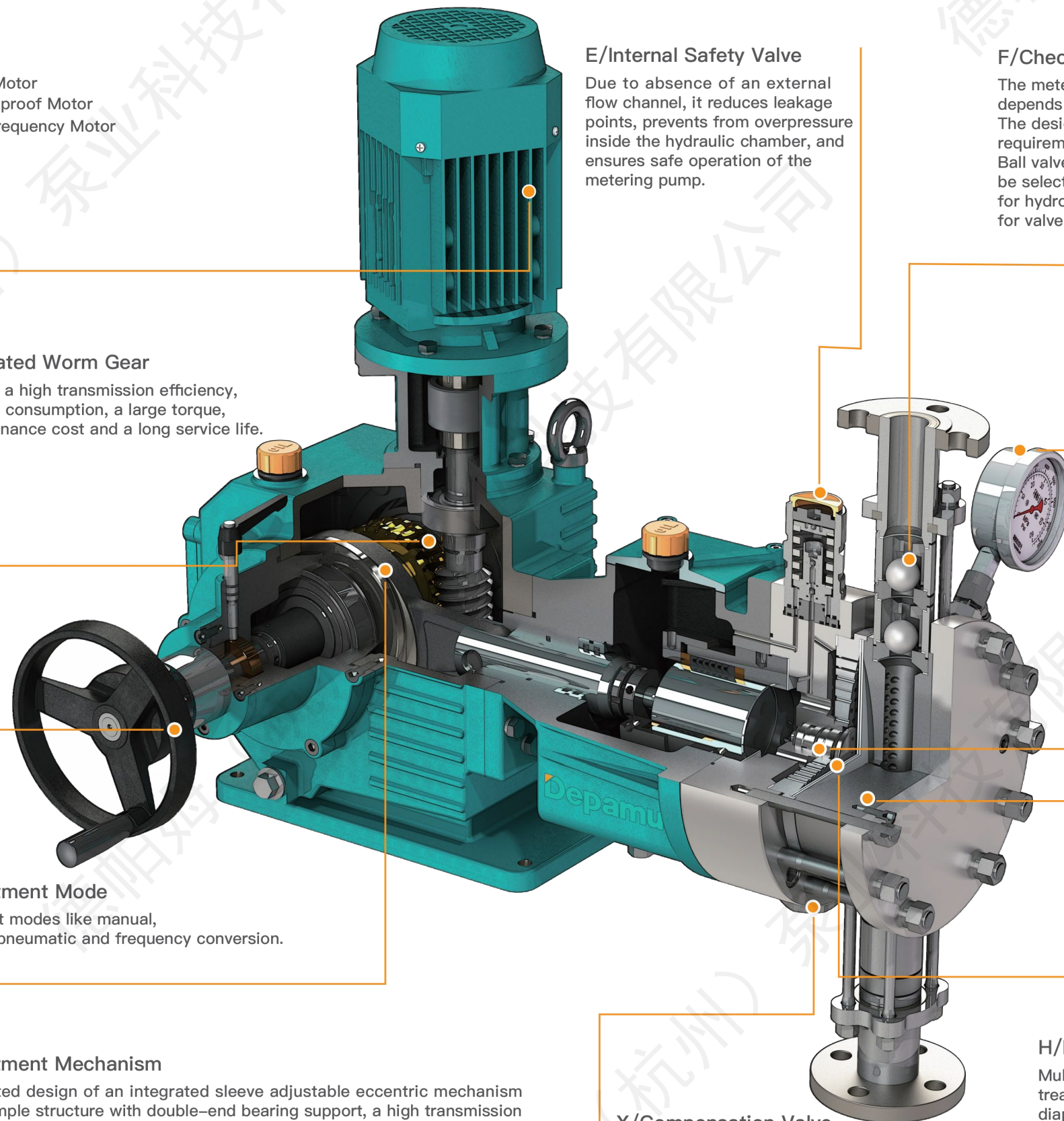
The superior chamber design effectively protects the diaphragm and ensures a smooth fluid flow.

H/Diaphragm

Multi-directional rolling and quenching treatment enhances ductility of PTFE diaphragms and prolongs the service life. The forms of a single diaphragm, double diaphragms, triple diaphragms, etc. can be selected.

X/Compensation Valve

Ensuring a stable oil volume and oil pressure in the hydraulic chamber.



Model

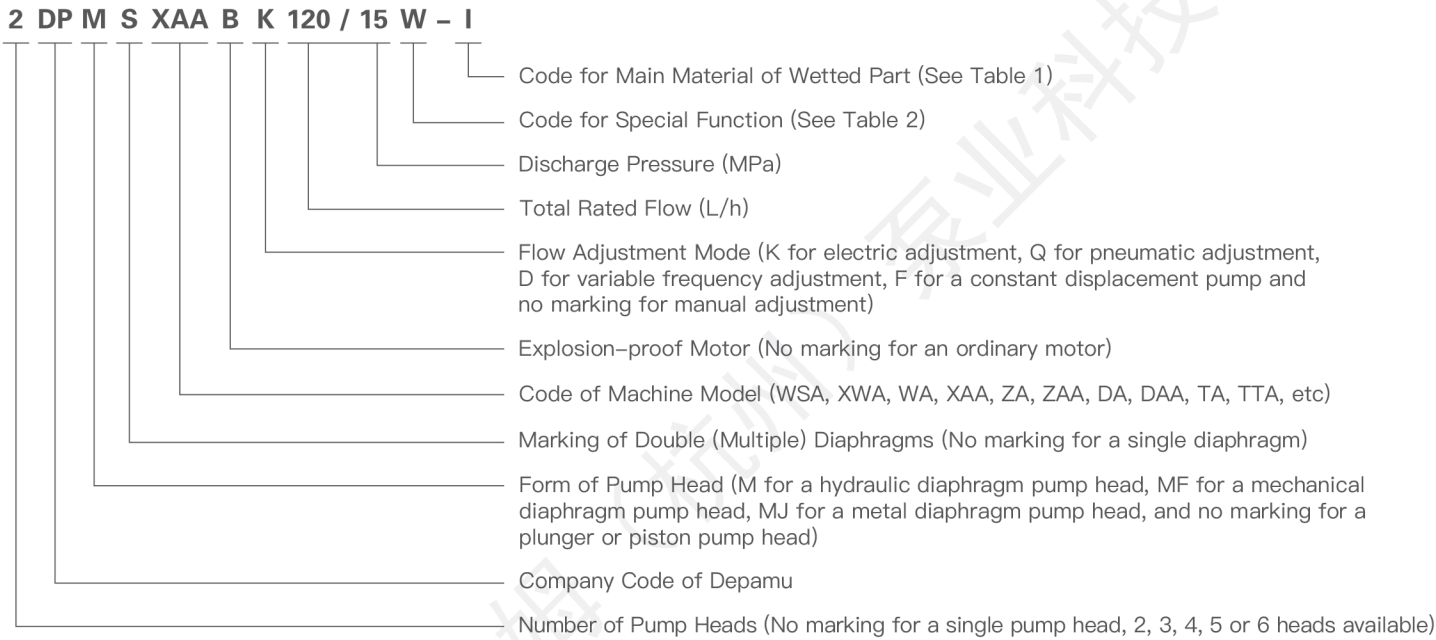


Table 1 Code for Main Material of Wetted Parts

Code	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
Material	304	316	316L	PVC*	PTFE (PTFE Lining)*	PVDF*	PP*	CS	904	Duplex SS	Ti Alloy	Hastelloy C	Alloy 20#	2Cr13

Note: Materials with “*” shall be used under a pressure below 1.6 MPa.

Table 2 Code for Special Function

Code	W	Y	G	L	A	J
Main Usage	Heat Insulation	High Temperature	High Viscosity	Liquid with Particles	Food Grade	Slurry

Necessary Data Required for Metering Pump Model Selection

Please provide the following technical data as detailed as possible when ordering in order to get a most suitable metering pump:

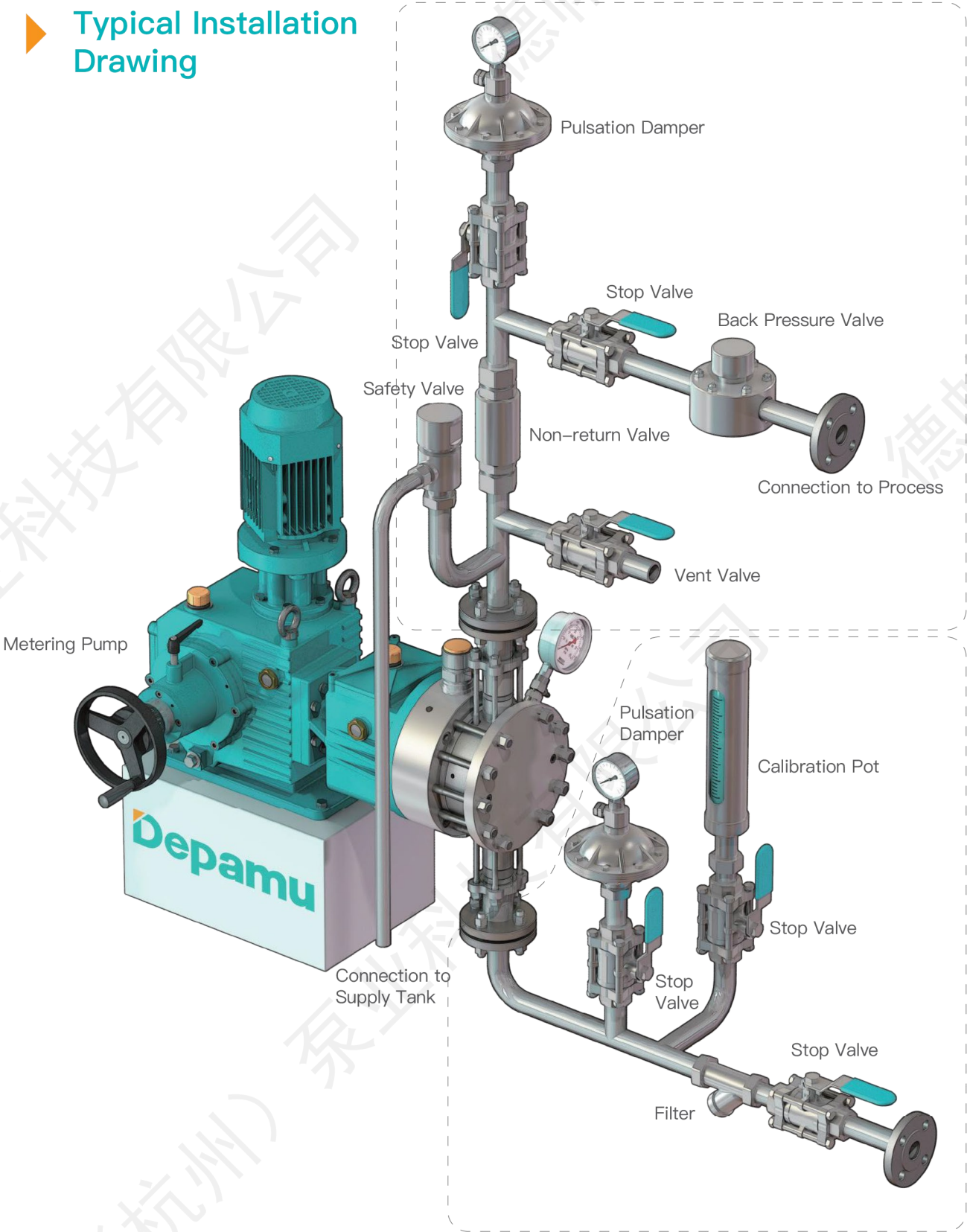
1. Technical Conditions of Pump

- Pump Type: Mechanical Diaphragm Type, Hydraulic Diaphragm Type, Plunger Type, Single Cylinder, Multiple Cylinders in Parallel Connection
- Max Flow Rate: L/h
- Actual Max Discharge Pressure: MPa
- Wetted Part Material: 304, 316, PVC, PTFE, Hastelloy C, etc.
- Adjustment Mode: Manual, Electric, Pneumatic, Variable Frequency
- Ordinary or Explosion-proof Motor: In case of an explosion-proof motor, the specific explosion-proof grade and the altitude shall be indicated.
- Power Supply: Three-phase, Single-phase, Voltage, Frequency
- Suction Pressure: MPa

2. Description of Pumped Fluid

- Fluid Name:
- Concentration: %
- Temperature: °C
- Density: kg/m³
- Viscosity: Pa.s
- Corrosivity: PH
- Particle Content and Size: μm

Typical Installation Drawing



Note:
The above is a typical installation drawing for a metering pump. The dotted parts are metering pump accessories purchased separately according to working conditions. Refer to Page 45-46 for details.

Product Overview

Metering Pump Series



Hydraulic Diaphragm Metering Pump



Hydraulic Double-diaphragm Metering Pump (With Electric Actuator)



Double-head Hydraulic Diaphragm Metering Pump



Five-plunger Metering Pump

Diaphragm Pump Series



Pneumatic Diaphragm Pump



Electric Diaphragm Pump



Mechanical Diaphragm Metering Pump (With Electric Actuator)



Mechanical Diaphragm Metering Pump

Screw Pump Series



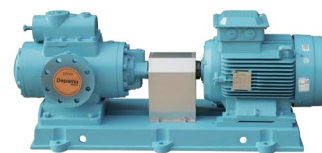
Single-screw Pump



Single-screw Pump



Two-screw Pump



Three-screw Pump

Lobe/Centrifugal Pump Series



Rubber Lobe Pump



Metal Lobe Pump

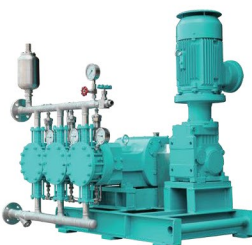


Chemical Process Pump

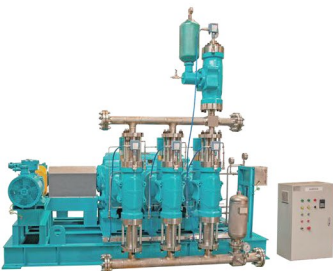


Fluorine-lining Centrifugal Pump

Reciprocating Pump Series



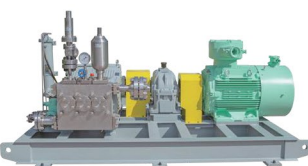
High-pressure Process Diaphragm Pump



High-pressure Process Hose Pump



Five-plunger Reciprocating Pump



Three-plunger Reciprocating Pump

Skid-mounted Equipment Series



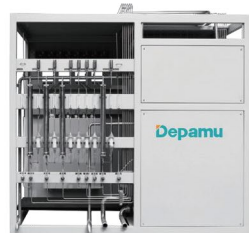
Chemical Dosing Package



Chemical Dosing Package for Offshore Application



Super-critical Extraction Equipment



Water Steam Sampling System

Mechanical Diaphragm Metering Pump

Work Principle

The motor drives worm gear pair, changes rotary motion of the motor into reciprocating movement of the slide rod through the eccentric mechanism, the slide rod drives the mechanical diaphragm to perform periodical deformation, thus realizing fluid suction and discharge.

Features

- ▶ An advanced design of single diaphragm and double diaphragms uniformly forced through grinding, making diaphragms more durable;
- ▶ Double PTFE diaphragms show excellent corrosion resistance and leakage prevention;
- ▶ The diaphragm status monitoring system can send out signals when one diaphragm ruptures, the pump can continue working till diaphragm replacement or it can be stopped directly without any pollution to fluids;
- ▶ An accurate design of eccentric mechanism, including cam and spring eccentric mechanism, and integrated sleeve adjustable eccentric transmission mechanism;
- ▶ Static seal of diaphragm at hydraulic end replaces dynamic seal of plunger, ensuring no leakage during fluid transportation;
- ▶ Diaphragm movement directly driven by the slide bar replaces cyclic reciprocation of diaphragm hydraulically driven, so the structure of a mechanical diaphragm pump is simpler and makes maintenance more convenient;
- ▶ Depamu mechanical diaphragm pumps, in a patented design, ensure a stable flow output;
- ▶ Whether a pump is shut down or running, stable flow outputs can be steplessly adjusted via the fine-tuning knob;
- ▶ Since there is no safe relief device, it is suggested to install a relief valve on the outlet pipeline of the pump.

Technical Data

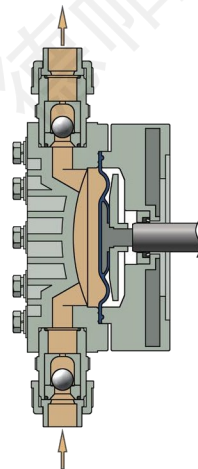
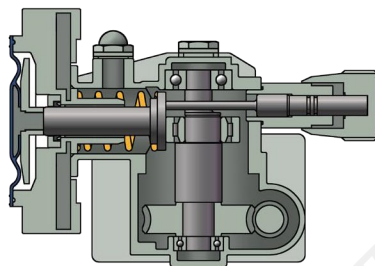
- ▶ Capacity Range per Pump Head: ≤2800 L/h
- ▶ Pressure Range: ≤1.2 MPa

Material Selection

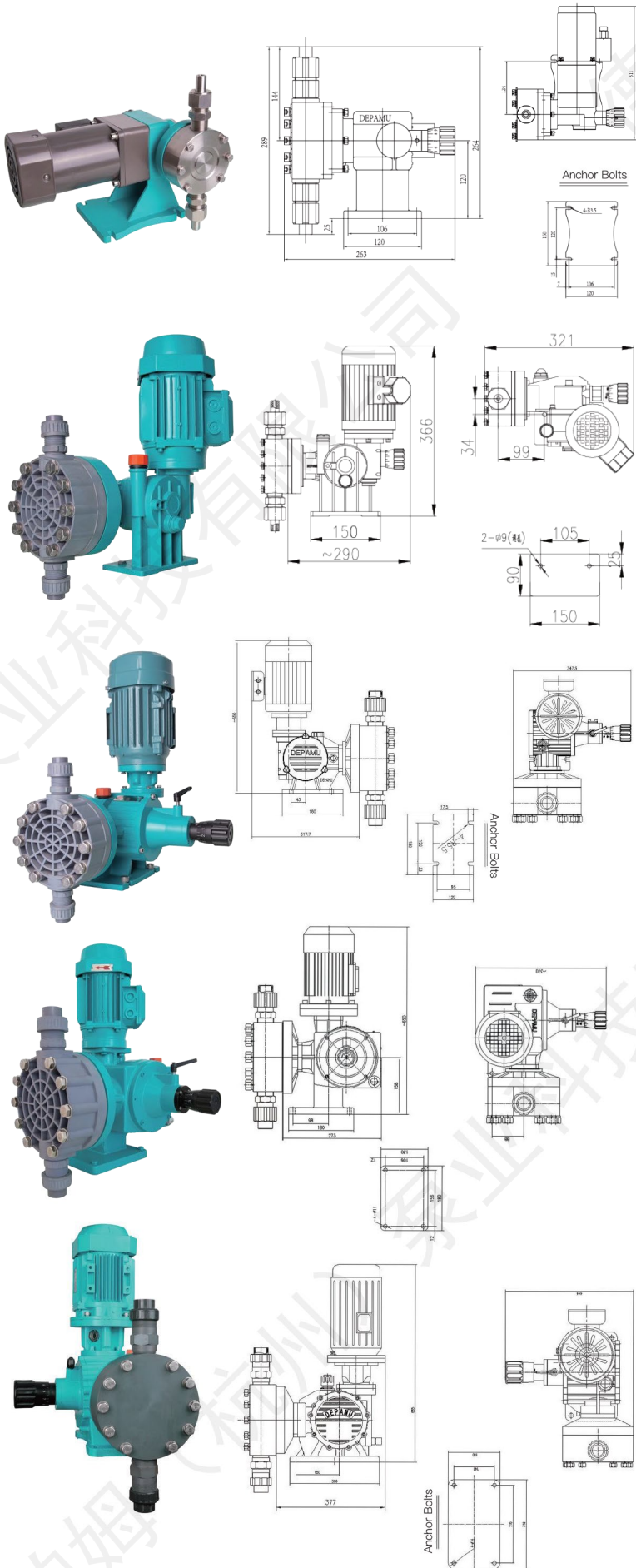
A pump head can be made of 304, 316, 316L, PVC, PVDF, PP, PTFE, etc.

Application

It is widely used in industries of environment protection, pharmaceutical, paper, sewage treatment, urban water supply, cement grinding aid, new energy, etc.



Pump Head of Mechanical Diaphragm Pump



DPMFWSA

Model	Capacity (L/h)	Motor Power		Stroke Length (mm)	Strokes (r/min)
		90W	Discharge Pressure (MPa)		
DPMFWSA10/1.2	10	1.2		5	30
DPMFWSA30/1.0	30	1.0		5	75
DPMFWSA60/1.0	60	1.0		5	120
DPMFWSA100/0.5	100	0.5		5	160
DPMFWSA120/0.4	120	0.4		5	200
DPMFWSA150/0.3	150	0.3		5	200

DPMFXWA

Model	Capacity (L/h)	Motor Power		Stroke Length (mm)	Strokes (r/min)
		0.37KW	Discharge Pressure (MPa)		
DPMFXWA10/1.2	10	1.2		3	45
DPMFXWA30/1.2	30	1.2		6	45
DPMFXWA60/1.2	60	1.2		6	90
DPMFXWA90/1.2	90	1.2		6	120
DPMFXWA120/1.0	120	1.0		6	160
DPMFXWA160/0.6	160	0.6		6	120
DPMFXWA220/0.5	220	0.5		6	160
DPMFXWA360/0.3	360	0.3		6	120

DPMFWA

Model	Capacity (L/h)	Motor Power		Stroke Length (mm)	Strokes (r/min)
		0.55kW	0.75kW		
DPMFWA200/1.2	200	1.2		8	90
DPMFWA240/1.0	240	1.0		8	120
DPMFWA360/0.7	360	0.7		8	160
DPMFWA600/0.6	600	0.6	0.4	8	160
DPMFWA750/0.4	750		0.4	10	

DPMFWAA

Model	Capacity (L/h)	Motor Power		Stroke Length (mm)	Strokes (r/min)
		0.75kW	1.5kW		
DPMFWAA230/1.2	230	1.2		6	102
DPMFWAA400/1.0	400	1.2		8	180
DPMFWAA460/0.8/1.2	460	0.8	1.2	8	102
DPMFWAA820/0.6/0.8	820	0.6	0.8	8	180

DPMFXAA

Model	Capacity (L/h)	Motor Power		Stroke Length (mm)	Strokes (r/min)
		0.75kW	1.5kW		
DPMFXAA600/0.5/1.0	600	0.5	1.0	8	160
DPMFXAA800/0.4/0.7	800	0.4	0.7	10	102
DPMFXAA1200/0.3/0.6	1200	0.3	0.6	10	160
DPMFXAA1600/0.6	1600		0.6	10	160
DPMFXAA2000/0.5	2000		0.5	10	210
DPMFXAA2300/0.3	2300		0.3	10	210

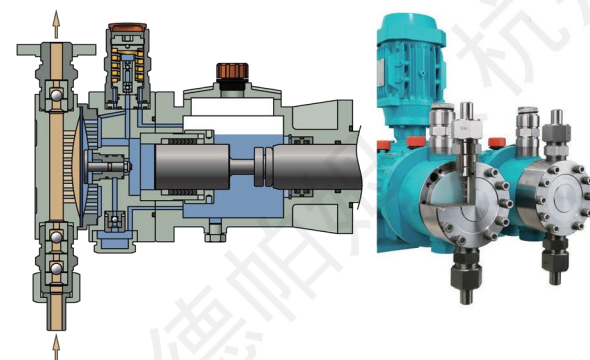
Hydraulic Diaphragm Metering Pump

Work Principle

Reciprocation of the plunger drives hydraulic oil, which drives the diaphragm to do reciprocation motion, thus realizing fluid suction and discharge.

Features

- ▶ Adoption of automatic oil supply and internal safety protection technology based on mutual interaction of diaphragm—limit valve—compensation valve—internal safety valve. The accuracy of a limit valve reaches $\pm 0.002\text{mm}$, the surface hardness reaches 60~70HRC and the roughness reaches $0.4\mu\text{m}$; the pump can be reused for 80 million times within a temperature range of $-80^{\circ}\text{C}\sim 160^{\circ}\text{C}$;
- ▶ Through multi-directional rolling and surface quenching treatment, evenness of PTFE macro-molecule composite diaphragm reaches 99.92%, cold flow is reduced during operation and compressive strength is enhanced;
- ▶ Internal safety valve and compensation valve realizing automatic air discharge and oil replenishment have outstanding and reliable performance;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%, the metering accuracy is $\pm 0.5\%$ (10%–100% adjustment range);
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ When transporting hazardous fluids toxic, flammable, explosive or strongly corrosive, double diaphragms or multiple diaphragms can be used;
- ▶ The diaphragm rupture alarm device prevents fluids from contact with hydraulic oil in case of diaphragm rupture, thus avoiding happening of any accident;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and frequency conversion adjustment;
- ▶ Installation of an electric actuator ensures realization of automatic remote control;
- ▶ Two pump heads or multiple heads (12 at most) can be connected in parallel; a pump with two or more heads can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump;
- ▶ With a wide application range, it can safely transport all kinds of fluids.



Pump Head of Hydraulic Diaphragm Pump

Technical Data

Capacity Range per Pump Head: $\leq 12100\text{ L/h}$

Pressure Range: $\leq 70\text{ MPa}$

Material Selection

A pump head can be made of 304, 316, 316L, 904, Hastelloy C, PVC, PVDF, PP, PTFE, etc.

Application

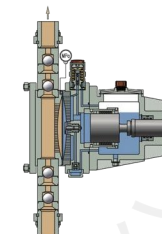
It is widely used in scientific research and production departments in industries of petroleum, chemical, natural gas, food, paper-making, atomic energy technology, power plant, plastics, medicine, environmental protection, textile, mine, etc, and can be applied to transport of media strongly corrosive, easy to volatile or crystallize, flammable, explosive, toxic, stinky, with a large specific gravity, a medium viscosity or radioactivity, or other noble metal.



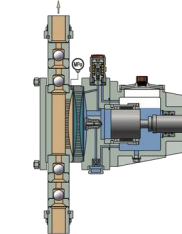
Options

Hydraulic Double Diaphragm Alarm Pump Head

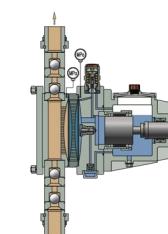
A hydraulic double diaphragm alarm pump head (see Picture A), carrying all the features of a hydraulic diaphragm pump head, has a diaphragm rupture detector additionally, which can output alarm signals when one diaphragm ruptures while ensuring continuous normal working of the other diaphragm. It is mainly used to transport dangerous media flammable, explosive and toxic. Under harsh working conditions, it is suggested to use a triple-diaphragm alarm pump head (see Picture B) or quadruple-diaphragm alarm pump head (see Picture C), safer and more reliable.



Picture A Hydraulic Double Diaphragm



Picture B Hydraulic Triplex Diaphragm



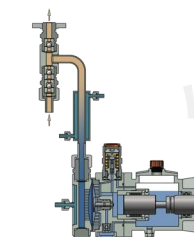
Picture C Hydraulic Quadruple Diaphragm

Hydraulic Metal Diaphragm Pump Head

A hydraulic metal diaphragm pump head is applied to occasions of a high pressure and a high temperature. The maximum working temperature reaches 451°C and the pressure reaches 70MPa.

Remote Diaphragm Pump Head

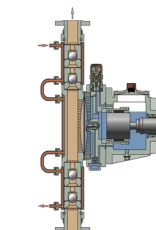
A remote diaphragm pump head (see Picture D) realizes a short-distance design between suction valve and discharge valve, thus effectively reducing fluid sedimentation time; at the same time, a cooling system is installed on the transportation pipeline of check valve and pump head to avoid bad effects on pump head and mechanical transmission parts due to over-temperature. It is applicable to fluid with a high temperature, high viscosity and high toxicity or easy to precipitate as well as occasions with special requirements of installation position.



Picture D Remote High Temperature Pump Head

Hydraulic Temperature-controlled Diaphragm Pump Head

A hydraulic temperature-controlled diaphragm pump head (see Picture E) is applicable to deliver fluids whose temperature needs to be controlled. Heat exchange and temperature compensation are conducted when fluid enters the pump head, ensuring correct fluid injection; besides, in case of viscous fluid transport, in order to improve liquidity, based on the principle that liquid viscosity lowers with a temperature rise, fluidity of fluid entering pump head is increased through heat exchange for the purpose of smooth transport and accurate metering. At the same time, the plunger chamber with a supporting cooling device reduces bad effects on mechanical transmission parts due to over-temperature.



Picture E Hydraulic Thermostatic Pump Head

Electric Actuator

An electric actuator (see Picture F) is connected with the flow adjustment screw rod of a metering pump, can change the stroke length through change in the number of rotation times via receipt of 4–20mA input signals, and output a group of 4–20mA feedback signals to form closed-loop control, finally adjust the output flow rate of the metering pump, realize remote or automatic adjustment of flow rate as well as automation. A specific stroke percentage and operation status can be displayed on the LCD screen.



Picture F Electric Actuator

Variable Frequency Adjustment

A VFD controls the rotation speed of a motor through change in the motor power frequency, thus changing the number of stroke times and adjusting the flow rate of the metering pump.

Pneumatic Actuator

A pneumatic actuator (see Picture G) can change direction and adjust volume of air supply via 4–20mA signal, drive adjusting screw rod via air, adjust stroke length and output 4–20mA feed signal to realize closed-loop control and achieve the purpose of automatic remote intrinsic-safety ex-proof flow adjustment. Stroke length percentage can be displayed on site mechanical scale, digitally displayed and adjusted via IP converter or displayed and controlled remotely via DCS.



Picture G Pneumatic Actuator

Plunger Metering Pump

Work Principle

The plunger directly contacts with fluids, and the volume of the working chamber changes cyclically with reciprocation of the plunger, thus realizing fluid suction and discharge.

Features

- ▶ High performance plunger, special imported packing and sealing components with a long service life and excellent sealing performance;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ Generally, the plunger diameter is: $D=\phi 2-\phi 150\text{mm}$;
- ▶ A simple structure, convenient maintenance and high cost effectiveness;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%, the metering accuracy is $\pm 0.5\%$ (10%–100% adjustment range);
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and frequency conversion adjustment;
- ▶ An electric actuator is supplied to realize automatic remote control;
- ▶ Two pump heads or multiple heads (12 at most) can be connected in parallel; a pump with two or more heads can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump;
- ▶ Due to absence of a safety relief device, it is suggested to install a safety valve on the outlet pipeline of a pump.

Technical Data

Capacity Range per Pump Head: $\leq 12100\text{ L/h}$

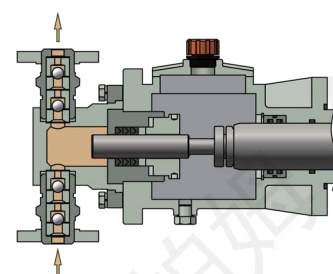
Pressure Range: $\leq 95\text{ MPa}$

Material Selection

A pump head can be made of 304, 316, 316L, 904, Hastelloy C, etc.

Application

It is widely used in fields like chemical, petrochemical, natural gas, oil and gas field, foaming, electricity, metallurgy, etc. Particularly, it is especially popular in application of liquid transport with a high viscosity, high pressure, high temperature, etc.



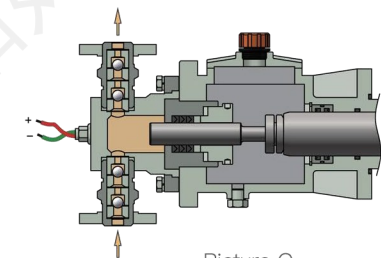
Pump Head of Plunger Pump



Options

Electrical Heating Plunger Pump Head

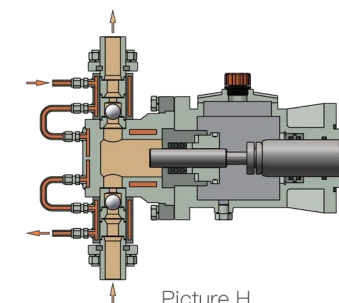
An electrical heating plunger pump head (see Picture G) is applicable to working conditions where fluids solidify or crystallize below a certain temperature, such as asphalt, paraffin, etc. Due to a fast heating speed as well as installation of a temperature controller, the temperature can be controlled within a certain range.



Picture G

Plunger Pump Head with Heat Insulation or Cooling Jacket

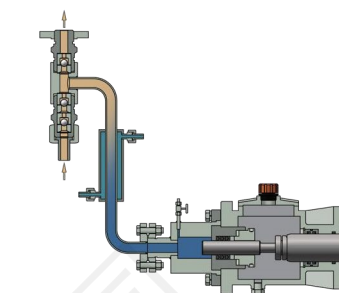
A plunger pump head with heat insulation or cooling jacket (see Picture H) has insulation or cooling interlayer shells on hydraulic cylinder, inlet and outlet, which perform special heat insulation or cooling of pumped fluids. At the same time, its sealed cavity contains insulation or cooling jacket, controlling the sealed cavity temperature by conveying insulation or cooling fluid to the jacket. Steam heating features stable heating and a relatively small temperature fluctuation, and is mainly applied to transport of fluids requiring heating or those with a high viscosity which drops with a temperature rise. A special heat insulation design is available based on client demand and is applicable to transport of fluid easily crystallizing and requiring heat insulation.



Picture H

Remote Plunger Pump Head

A remote plunger pump head (see Picture I) realizes a short-distance design between suction valve and discharge valve, thus effectively reducing fluid sedimentation time; at the same time, a cooling system is installed on the transportation pipeline of check valve and pump head to avoid bad effects on pump head and mechanical transmission parts due to over-temperature. It is applicable to delivery of fluids with a high temperature, high viscosity and high toxicity or easy to precipitate as well as occasions with special requirements of installation position.



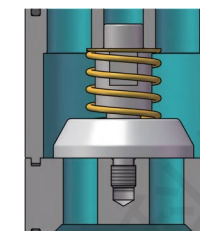
Picture I

Valve Body System

Reliable Check Valve Technology

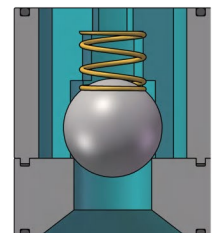
Planar Pressure Reset Type Check Valve

With the features of a simple structure, wide opening flow way, little back-flow, light weight, rapid reset, etc., the valve is applicable to delivery of fluids with a large capacity, high pressure and low viscosity in water injection pumps, alcohol injection pumps and washing pumps.



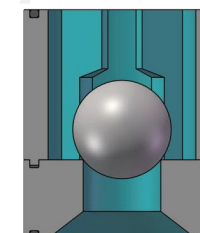
Spherical Pressure Reset Type Check Valve

With the features of a simple structure, good self-cleaning ability, good sealing, stable operation and good fluidity, it can be used for delivery of fluids with demanding performance and solid particles, is especially applicable to services requiring a high accuracy and a low flow, and widely used in equipment with high demand in accurate flow metering and pressure retaining.



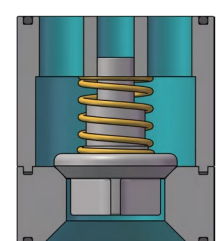
Spherical Automatic Reset Type Check Valve

With the features of a simple structure, rapid reset, good sealing and stable running, it can be used to transport fluids with a high viscosity and solid particles, and is applicable to special services requiring good sealing or involving a high viscosity or pressure.



Double Orientation Cone Reset Type Check Valve

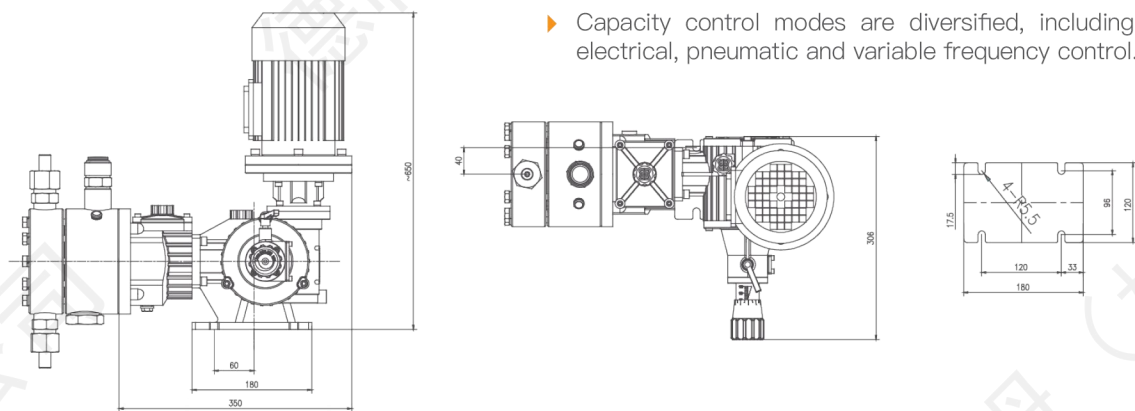
With the features of quick reset, high precision, good sealing, low noise, little wearing, etc., it is applicable to delivery of fluids with a large capacity and a high viscosity, and is especially suitable in services with environmental noise limit.



DP(M)WA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

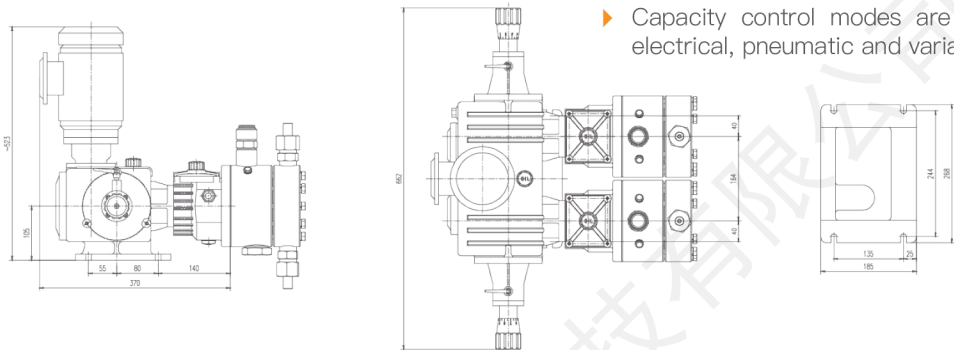


Model (i=16)	Flow (L/h)	Motor Power		Model (i=12)	Flow (L/h)	Motor Power		Model (i=9)	Flow (L/h)	Motor Power		Plunger Diameter (mm)
		0.37kW	Discharge Pressure MPa			0.37kW/0.55kW	Discharge Pressure MPa			0.37kW/0.55kW	Discharge Pressure MPa	
DP(M)WA0.8/61.7	0.8		61.7									8
DP(M)WA1.6/39.5	1.6		39.5									10
DP(M)WA2.5/27.4	2.5		27.4									12
DP(M)WA5/20.1	5		20.1									14
DP(M)WA7/17.6	7		17.6									15
DP(M)WA9/15.4	9	15.4		DP(M)WA13/12.2/15.4	13	12.2	15.4					16
DP(M)WA12/12.2	12	12.2		DP(M)WA17/9.6/12.2	17	9.6	12.2					18
DP(M)WA16/9.9	16	9.9		DP(M)WA22/7.8/9.9	22	7.8	9.9					20
DP(M)WA20/8.2	20	8.2		DP(M)WA28/6.5/8.2	28	6.5	8.2					22
DP(M)WA26/6.3	26	6.3		DP(M)WA37/5.0/6.3	37	5.0	6.3					25
DP(M)WA38/4.4	38	4.4		DP(M)WA55/3.5/4.4	55	3.5	4.4	DP(M)WA70/2.6/3.9	70	2.6	3.9	30
DP(M)WA55/3.2	55	3.2		DP(M)WA75/2.6/3.2	75	2.6	3.2	DP(M)WA100/1.9/2.8	100	1.9	2.8	35
DP(M)WA72/2.5	72	2.5		DP(M)WA98/2.0/2.5	98	2.0	2.5	DP(M)WA132/1.5/2.2	132	1.5	2.2	40
DP(M)WA91/2.0	91	2.0		DP(M)WA125/1.5/2.0	125	1.5	2.0	DP(M)WA170/1.2/1.7	170	1.2	1.7	45
DP(M)WA115/1.6	115	1.6		DP(M)WA155/1.3/1.6	155	1.3	1.6	DP(M)WA212/0.9/1.4	212	0.9	1.4	50

2DP(M)WA

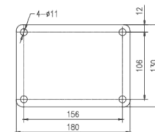
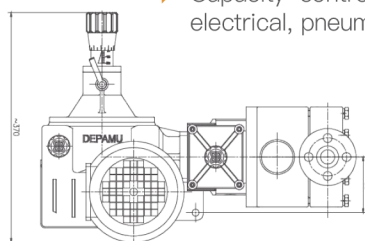
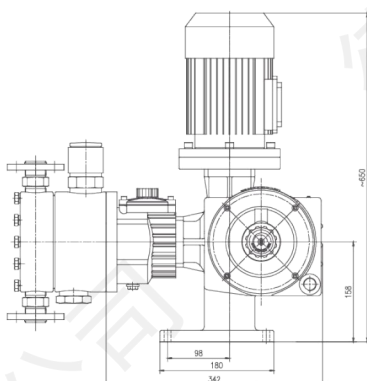


- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.



Model (i=16)	Flow (L/h)	Motor Power		Model (i=12)	Flow (L/h)	Motor Power		Model (i=9)	Flow (L/h)	Motor Power		Plunger Diameter (mm)
		0.37kW/0.55kW	Discharge Pressure MPa			0.37kW/0.55kW	Discharge Pressure MPa			0.37kW/0.55kW	Discharge Pressure MPa	
2DP(M)WA1.6/49.3	1.6	49.3	61.7									8
2DP(M)WA3.2/31.5	3.2	31.5	39.5									10
2DP(M)WA5/21.9/27	5	21.9	27.4									12
2DP(M)WA10/16.1	10	16.1	20.1									14
2DP(M)WA14/14/18	14	14.0	17.6									15
2DP(M)WA18/12.4/15.4	18	12.4	15.4	2DP(M)WA26/9.5/13.9	26	9.5	13.9					16
2DP(M)WA24/9.8/12.2	24	9.8	12.2	2DP(M)WA34/7.5/11.0	34	7.5	11.0					18
2DP(M)WA32/8.0/9.9	32	8.0	9.9	2DP(M)WA44/6.1/8.9	44	6.1	8.9					20
2DP(M)WA40/6.6/8.2	40	6.6	8.2	2DP(M)WA56/5.0/7.4	56	5.0	7.4					22
2DP(M)WA52/5.1/6.3	52	5.1	6.3	2DP(M)WA74/3.9/5.7	74	3.9	5.7					25
2DP(M)WA76/3.5/4.4	76	3.5	4.4	2DP(M)WA110/2.7/4.0	110	2.7	4.0	2DP(M)WA140/1.9/3.1	140	1.9	3.1	30
2DP(M)WA110/2.6/3.2	110	2.6	3.2	2DP(M)WA150/2.0/2.9	150	2.0	2.9	2DP(M)WA200/1.4/2.3	200	1.4	2.3	35
2DP(M)WA144/2.0/2.5	144	2.0	2.5	2DP(M)WA196/1.5/2.2	196	1.5	2.2	2DP(M)WA264/1.0/1.7	264	1.0	1.7	40
2DP(M)WA182/1.6/2.0	182	1.6	2.0	2DP(M)WA250/1.2/1.8	250	1.2	1.8	2DP(M)WA340/0.8/1.4	340	0.8	1.4	45
2DP(M)WA230/1.3/1.6	230	1.3	1.6	2DP(M)WA310/1.0/1.4	310	1.0	1.4	2DP(M)WA424/0.7/1.1	424	0.7	1.1	50

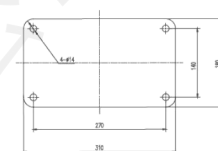
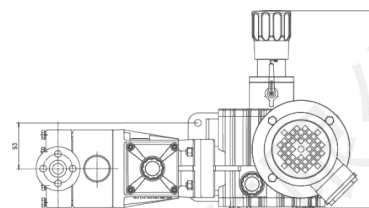
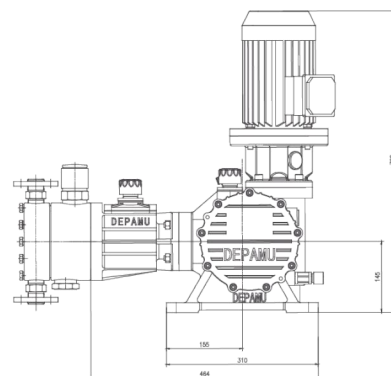
DP(M)WAA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ Three or more pump heads (12 at most) can be connected in parallel; a pump with three or more heads can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of each pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=14)	Flow (L/h)	Motor Power		Model (i=9)	Flow (L/h)	Motor Power			Plunger Diameter (mm)
		0.37kW/0.55kW				0.37kW/0.55kW/0.75kW			
		Discharge Pressure MPa				Discharge Pressure MPa			
DP(M)WAA1/43.8/61.7	1	43.8	61.7	DP(M)WAA3/25.0/37.8/55.7	3	25.0	37.8	55.7	8
DP(M)WAA3/28.0/39.5	3	28.0	39.5	DP(M)WAA6/15.0/24.2/35.7	6	15.0	24.2	35.7	10
DP(M)WAA5/19.5/27.4	5	19.5	27.4	DP(M)WAA12/10.0/16.8/24.8	12	10.0	16.8	24.8	12
DP(M)WAA8/14.3/20.1	8	14.3	20.1	DP(M)WAA18/8.4/12.3/18.2	18	8.4	12.3	18.2	14
DP(M)WAA11/12.5/17.6	11	12.5	17.6	DP(M)WAA22/7.4/10.8/15.9	22	7.4	10.8	15.9	15
DP(M)WAA14/10.9/15.4	14	10.9	15.4	DP(M)WAA25/6.5/9.5/13.9	25	6.5	9.5	13.9	16
DP(M)WAA18/8.6/12.2	18	8.6	12.2	DP(M)WAA35/5.1/7.5/11.0	35	5.1	7.5	11.0	18
DP(M)WAA22/7.0/9.9	22	7.0	9.9	DP(M)WAA45/4.1/6.1/8.9	45	4.1	6.1	8.9	20
DP(M)WAA28/5.8/8.2	28	5.8	8.2	DP(M)WAA55/3.4/5.0/7.4	55	3.4	5.0	7.4	22
DP(M)WAA38/4.5/6.3	38	4.5	6.3	DP(M)WAA70/2.6/3.9/5.7	70	2.6	3.9	5.7	25
DP(M)WAA55/3.1/4.4	55	3.1	4.4	DP(M)WAA105/1.8/2.7/4.0	105	1.8	2.7	4.0	30
DP(M)WAA78/2.3/3.2	78	2.3	3.2	DP(M)WAA145/1.4/2.0/2.9	145	1.4	2.0	2.9	35
DP(M)WAA100/1.8/2.5	100	1.8	2.5	DP(M)WAA192/1.0/1.5/2.2	192	1.0	1.5	2.2	40
DP(M)WAA135/1.4/2.0	135	1.4	2.0	DP(M)WAA244/0.8/1.2/1.8	244	0.8	1.2	1.8	45
DP(M)WAA165/1.1/1.6	165	1.1	1.6	DP(M)WAA302/0.7/1.0/1.4	302	0.7	1.0	1.4	50

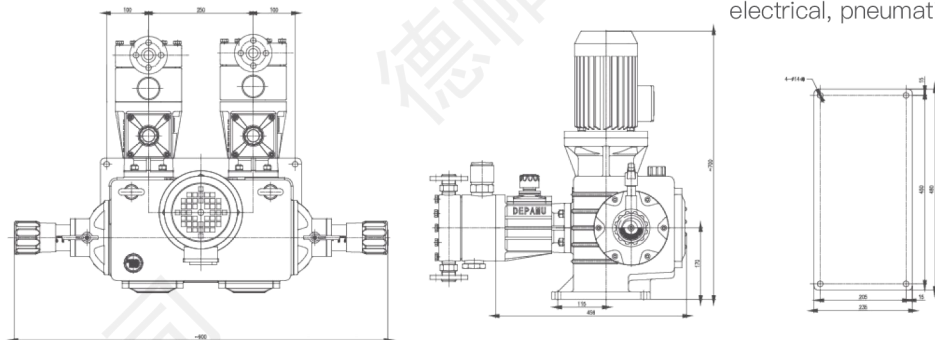
DP(M)XAA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=14)	Flow (L/h)	Motor Power			Model (i=9)	Flow (L/h)	Motor Power			Plunger Diameter (mm)
		0.5kW/0.75kW/1.5kW					0.5kW/0.75kW/1.5kW			
		Discharge Pressure MPa					Discharge Pressure MPa			
DP(M)XAA8/24.8/33.6/51.3	8	24.8	33.6	51.3	DP(M)XAA12/16.8/22.1/44.2	12	16.8	22.1	44.2	12
DP(M)XAA12/18.2/24.7/37.7	12	18.2	24.7	37.7	DP(M)XAA20/12.3/16.2/32.5	20	12.3	16.2	32.5	14
DP(M)XAA15/13.9/18.9/28.9	15	13.9	18.9	28.9	DP(M)XAA29/9.5/12.4/24.9	29	9.5	12.4	24.9	16
DP(M)XAA20/11.0/14.9/22.8	20	11.0	14.9	22.8	DP(M)XAA40/7.5/9.8/19.7	40	7.5	9.8	19.7	18
DP(M)XAA28/8.9/12.1/18.5	28	8.9	12.1	18.5	DP(M)XAA50/6.1/8.0/15.9	50	6.1	8.0	15.9	20
DP(M)XAA35/7.4/10.0/15.3	35	7.4	10.0	15.3	DP(M)XAA60/5.0/6.6/13.2	60	5.0	6.6	13.2	22
DP(M)XAA50/5.7/7.7/11.8	50	5.7	7.7	11.8	DP(M)XAA85/3.9/5.1/10.2	85	3.9	5.1	10.2	25
DP(M)XAA75/4.0/5.4/8.2	75	4.0	5.4	8.2	DP(M)XAA125/2.7/3.5/7.1	125	2.7	3.5	7.1	30
DP(M)XAA100/2.9/4.0/6.0	100	2.9	4.0	6.0	DP(M)XAA175/2.0/2.6/5.2	175	2.0	2.6	5.2	35
DP(M)XAA140/2.2/3.0/4.6	140	2.2	3.0	4.6	DP(M)XAA225/1.5/2.0/4.0	225	1.5	2.0	4.0	40
DP(M)XAA180/1.8/2.4/3.6	180	1.8	2.4	3.6	DP(M)XAA285/1.2/1.6/3.1	285	1.2	1.6	3.1	45
					DP(M)XAA355/1.0/1.3/2.5	355	1.0	1.3	2.5	50
					DP(M)XAA430/0.8/1.1/2.1	430	0.8	1.1	2.1	55
					DP(M)XAA515/0.6/0.8/1.5	515	0.6	0.8	1.5	60
					DP(M)XAA600/0.5/0.7/1.3	600	0.5	0.7	1.3	65
					DP(M)XAA700/0.4/0.6/1.1	700	0.4	0.6	1.1	70
					DP(M)XAA800/0.3/0.5/1.0	800	0.3	0.5	1.0	75

2DP (M) XAA



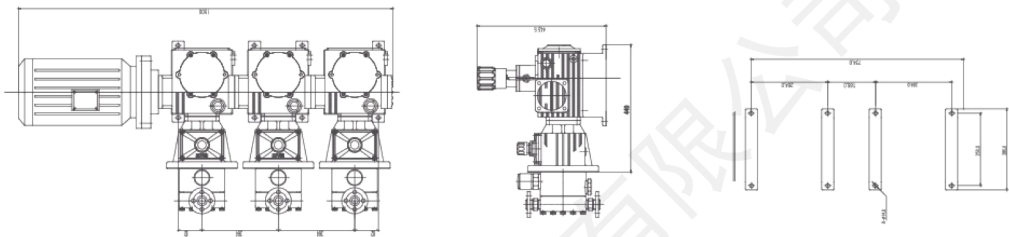
- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=14)	Flow (L/h)	Motor Power			Model (i=9)	Flow (L/h)	Motor Power					Plunger Diameter (mm)
		0.55kW/0.75kW/1.5kW					0.55kW/0.75kW/1.5kW/2.2kW					
		Discharge Pressure MPa					Discharge Pressure MPa					
2DP(M)XAA16/20.3/26.5/51.3	16	20.3	26.5	51.3	2DP(M)XAA24/12.4/16.8/33.6/51.3	24	12.4	16.8	33.6	51.3	12	
2DP(M)XAA24/14.9/19.5/37.7	24	14.9	19.5	37.7	2DP(M)XAA40/9.1/12.3/24.7/37.7	40	9.1	12.3	24.7	37.7	14	
2DP(M)XAA30/11.4/14.9/28.9	30	11.4	14.9	28.9	2DP(M)XAA58/7.0/9.5/18.9/28.9	58	7.0	9.5	18.9	28.9	16	
2DP(M)XAA40/9.0/11.8/22.8	40	9.0	11.8	22.8	2DP(M)XAA80/5.5/7.5/14.9/22.8	80	5.5	7.5	14.9	22.8	18	
2DP(M)XAA56/7.3/9.6/18.5	56	7.3	9.6	18.5	2DP(M)XAA100/4.5/6.1/12.1/18.5	100	4.5	6.1	12.1	18.5	20	
2DP(M)XAA70/6.1/7.9/15.3	70	6.1	7.9	15.3	2DP(M)XAA120/3.7/5.0/10.0/15.3	120	3.7	5.0	10.0	15.3	22	
2DP(M)XAA100/4.7/6.1/11.8	100	4.7	6.1	11.8	2DP(M)XAA170/2.9/3.9/7.7/11.8	170	2.9	3.9	7.7	11.8	25	
2DP(M)XAA150/3.3/4.2/8.2	150	3.3	4.2	8.2	2DP(M)XAA250/2.0/2.7/5.4/8.2	250	2.0	2.7	5.4	8.2	30	
2DP(M)XAA200/2.4/3.1/6.0	200	2.4	3.1	6.0	2DP(M)XAA350/1.5/2.0/4.0/6.0	350	1.5	2.0	4.0	6.0	35	
2DP(M)XAA280/1.8/2.4/4.6	280	1.8	2.4	4.6	2DP(M)XAA450/1.1/1.5/3.0/4.6	450	1.1	1.5	3.0	4.6	40	
2DP(M)XAA360/1.4/1.9/3.6	360	1.4	1.9	3.6	2DP(M)XAA570/0.9/1.2/2.4/3.6	570	0.9	1.2	2.4	3.6	45	
					2DP(M)XAA710/0.7/1.0/1.9/3.0	710	0.7	1.0	1.9	3.0	50	
					2DP(M)XAA860/0.6/0.8/1.6/2.4	860	0.6	0.8	1.6	2.4	55	
					2DP(M)XAA1030/0.4/0.6/1.1/2.1	1030	0.4	0.6	1.1	2.1	60	
					2DP(M)XAA1200/0.4/0.5/1.0/1.7	1200	0.4	0.5	1.0	1.7	65	
					2DP(M)XAA1400/0.3/0.5/0.8/1.5	1400	0.3	0.5	0.8	1.5	70	
					2DP(M)XAA1600/0.3/0.4/0.7/1.3	1600	0.3	0.4	0.7	1.3	75	

3DP (M) XAA



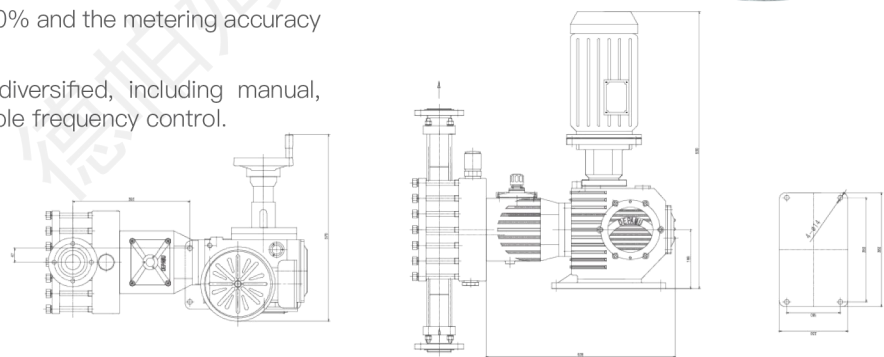
- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ Three or more pump heads (12 at most) can be connected in parallel; a pump with three or more heads can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of each pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.



Model (i=14)	Flow (L/h)	Motor Power		Model (i=9)	Flow (L/h)	Motor Power			Plunger Diameter (mm)
		1.5kW/2.2kW				1.5kW/2.2kW/3kW			
		Discharge Pressure MPa				Discharge Pressure MPa			
3DP(M)XAA24/37.2/51.3	24	37.2	51.3	3DP(M)XAA36/24.8/37.2/51.3	36	24.8	37.2	51.3	12
3DP(M)XAA36/27.3/37.7	36	27.3	37.7	3DP(M)XAA60/18.2/27.3/37.7	60	18.2	27.3	37.7	14
3DP(M)XAA45/20.9/28.9	45	20.9	28.9	3DP(M)XAA87/13.9/20.9/28.9	87	13.9	20.9	28.9	16
3DP(M)XAA60/16.5/22.8	60	16.5	22.8	3DP(M)XAA120/11.0/16.5/22.8	120	11.0	16.5	22.8	18
3DP(M)XAA84/13.4/18.5	84	13.4	18.5	3DP(M)XAA150/8.9/13.4/18.5	150	8.9	13.4	18.5	20
3DP(M)XAA105/11.1/15.3	105	11.1	15.3	3DP(M)XAA180/7.4/11.1/15.3	180	7.4	11.1	15.3	22
3DP(M)XAA150/8.6/11.8	150	8.6	11.8	3DP(M)XAA255/5.7/8.6/11.8	255	5.7	8.6	11.8	25
3DP(M)XAA225/5.9/8.2	225	5.9	8.2	3DP(M)XAA375/4.0/5.9/8.2	375	4.0	5.9	8.2	30
3DP(M)XAA300/4.4/6.0	300	4.4	6.0	3DP(M)XAA525/2.9/4.4/6.0	525	2.9	4.4	6.0	35
3DP(M)XAA420/3.3/4.6	420	3.3	4.6	3DP(M)XAA675/2.2/3.3/4.6	675	2.2	3.3	4.6	40
3DP(M)XAA540/2.6/3.6	540	2.6	3.6	3DP(M)XAA855/1.8/2.6/3.6	855	1.8	2.6	3.6	45
				3DP(M)XAA1065/1.4/2.1/3.0	1065	1.4	2.1	3.0	50
				3DP(M)XAA1290/1.2/1.8/2.4	1290	1.2	1.8	2.4	55
				3DP(M)XAA1545/0.8/1.3/2.1	1545	0.8	1.3	2.1	60
				3DP(M)XAA1800/0.7/1.1/1.7	1800	0.7	1.1	1.7	65
				3DP(M)XAA2100/0.6/0.9/1.5	2100	0.6	0.9	1.5	70
				3DP(M)XAA2400/0.5/0.8/1.3	2400	0.5	0.8	1.3	75

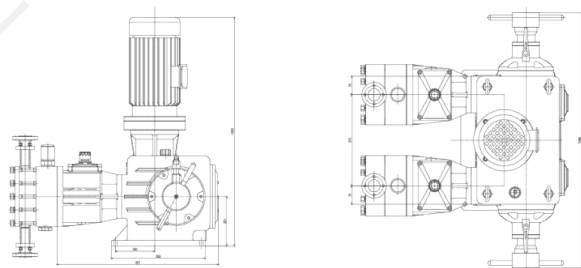
DP (M) ZA

- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.



Model (i=16)	Flow (L/h)	Motor Power		Model (i=11)	Flow (L/h)	Motor Power		Model (i=7.5)	Flow (L/h)	Motor Power				Plunger Diameter (mm)	
		1.5kW/2.2kW	Discharge Pressure MPa			1.5kW/2.2kW/3kW	Discharge Pressure MPa			1.5kW/2.2kW/3kW/4kW	Discharge Pressure MPa				
DP(M)ZA15/54/72	15	54	72	DP(M)ZA25/37/52/72	25	37	52	72.0	DP(M)ZA40/30.0/43.0/60.0/72.0	40	30.0	43.0	60.0	72.0	15
DP(M)ZA30/37/50	30	37	50	DP(M)ZA45/26/37/50	45	26	37	50.0	DP(M)ZA70/17.0/25.0/34.0/50.0	70	17.0	25.0	34.0	50.0	18
DP(M)ZA40/30/40	40	30	40	DP(M)ZA60/21/30/40	60	21	30	40.0	DP(M)ZA90/13.0/19.0/26.0/40.0	90	13.0	19.0	26.0	40.0	20
DP(M)ZA50/25/33	50	25	33	DP(M)ZA75/17/25/33	75	17	25	33.0	DP(M)ZA115/10.0/15.0/20.0/33.0	115	10.0	15.0	20.0	33.0	22
DP(M)ZA70/19/25	70	19	25	DP(M)ZA100/13/19/25	100	13	19	25.0	DP(M)ZA150/8.0/12.0/16.0/25.0	150	8.0	12.0	16.0	25.0	25
DP(M)ZA100/10.2/12.5	100	10.2	12.5	DP(M)ZA160/6.9/10.2/12.5	160	6.9	10.2	12.5	DP(M)ZA240/4.8/6.9/9.5/12.5	240	4.8	6.9	9.5	12.5	30
DP(M)ZA150/7.5/9.2	150	7.5	9.2	DP(M)ZA220/5.1/7.5/9.2	220	5.1	7.5	9.2	DP(M)ZA330/3.5/5.1/7.0/9.2	330	3.5	5.1	7.0	9.2	35
DP(M)ZA200/5.7/7.0	200	5.7	7.0	DP(M)ZA295/3.9/5.7/7.0	295	3.9	5.7	7.0	DP(M)ZA435/2.7/3.9/5.3/7.0	435	2.7	3.9	5.3	7.0	40
DP(M)ZA260/4.5/5.5	260	4.5	5.5	DP(M)ZA375/3.1/4.5/5.5	375	3.1	4.5	5.5	DP(M)ZA555/2.1/3.1/4.2/5.5	555	2.1	3.1	4.2	5.5	45
DP(M)ZA320/3.7/4.5	320	3.7	4.5	DP(M)ZA460/2.5/3.7/4.5	460	2.5	3.7	4.5	DP(M)ZA680/1.7/2.5/3.4/4.5	680	1.7	2.5	3.4	4.5	50
DP(M)ZA385/3.0/3.7	385	3.0	3.7	DP(M)ZA560/2.1/3.0/3.7	560	2.1	3.0	3.7	DP(M)ZA830/1.4/2.1/2.8/3.7	830	1.4	2.1	2.8	3.7	55
				DP(M)ZA670/1.7/2.5/3.1	670	1.7	2.5	3.1	DP(M)ZA980/1.2/1.7/2.4/3.1	980	1.2	1.7	2.4	3.1	60
				DP(M)ZA785/1.5/2.2/2.7	785	1.5	2.2	2.7	DP(M)ZA1100/1.0/1.5/2.0/2.7	1100	1.0	1.5	2.0	2.7	65
				DP(M)ZA910/1.3/1.9/2.3	910	1.3	1.9	2.3	DP(M)ZA1300/0.9/1.3/1.7/2.3	1300	0.9	1.3	1.7	2.3	70
				DP(M)ZA1040/1.0/1.4/1.8	1040	1.0	1.4	1.8	DP(M)ZA1500/0.7/1.0/1.4/1.8	1500	0.7	1.0	1.4	1.8	75
				DP(M)ZA1190/0.9/1.3/1.6	1190	0.9	1.3	1.6	DP(M)ZA1750/0.6/0.9/1.2/1.6	1750	0.6	0.9	1.2	1.6	80
				DP(M)ZA1300/0.5/1.1/1.4	1300	0.5	1.1	1.4	DP(M)ZA1900/0.5/0.8/1.1/1.3	1900	0.5	0.8	1.1	1.4	85
				DP(M)ZA1500/0.4/1.0/1.2	1500	0.4	1.0	1.2	DP(M)ZA2200/0.0/0.7/1.0/1.3	2200	0.7	1.0	1.0	1.3	90
				DP(M)ZA1670/0.0/0.9/1.1	1670	0.9	1.1		DP(M)ZA2480/0.0/0.6/0.9/1.1	2480	0.6	0.9	1.1		95
				DP(M)ZA1860/0.0/0.8/1.0	1860	0.8	1.0		DP(M)ZA2740/0.0/0.6/0.8/1.0	2740	0.6	0.8	1.0		100

2DP (M) ZA

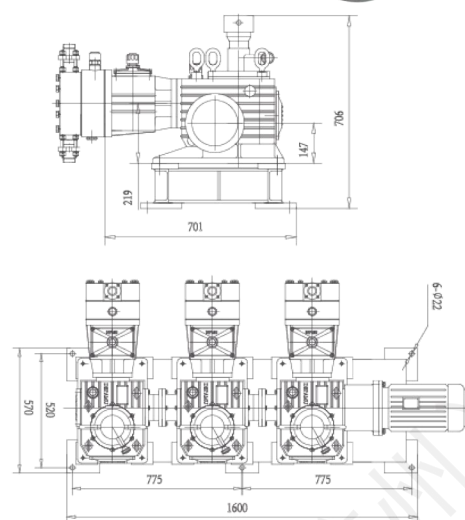


- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=16)	Flow (L/h)	Motor Power		Model (i=11)	Flow (L/h)	Motor Power				Model (i=7.5)	Flow (L/h)	Motor Power						Plunger Diameter (mm)
		1.5kW/2.2kW/3kW Discharge Pressure MPa				1.5kW/2.2kW/3kW/4kW Discharge Pressure MPa						1.5kW/2.2kW/3kW/4kW/5.5kW Discharge Pressure MPa						
2DP(M)ZA30/43/72	30	43	72	2DP(M)ZA50/29/42/58/72	50	29	42	58	72	2DP(M)ZA80/24/35/48/64/72	80	24	35	48	64	72	15	
2DP(M)ZA60/30/50	60	30	50	2DP(M)ZA90/20/30/40/50	90	20	30	40	50	2DP(M)ZA140/14/20/28/37/50	140	14	20	28	37	50	18	
2DP(M)ZA80/24/40	80	24	40	2DP(M)ZA120/17/24/34/40	120	17	24	34	40	2DP(M)ZA180/10/15/20/27/37	180	10	15	20	27	37	20	
2DP(M)ZA100/20/33	100	20	33	2DP(M)ZA150/14/20/28/33	150	14	20	28	33	2DP(M)ZA230/8/12/16/21/29	230	8	12	16	21	29	22	
2DP(M)ZA140/15/25	140	15	25	2DP(M)ZA200/10/15/20/25	200	10	15	20	25	2DP(M)ZA300/6/9/12/13/22	300	6	9	12	13	22	25	
2DP(M)ZA200/8.2/12.5	200	8.2	12.5	2DP(M)ZA320/5.8/8.2/11.7/12.5	320	5.8	8.2	11.7	12.5	2DP(M)ZA480/3.3/4.7/6.8/9.1/12.5	480	3	4.7	6.8	9.1	12.5	30	
2DP(M)ZA300/6.0/9.2	300	6.0	9.2	2DP(M)ZA440/4.3/6.0/8.6/9.2	440	4.3	6.0	8.6	9.2	2DP(M)ZA660/0.0/3.4/5.0/6.7/9.2	660		3.4	5.0	6.7	9.2	35	
2DP(M)ZA400/4.6/7.0	400	4.6	7.0	2DP(M)ZA590/3.3/4.6/6.6/7.0	590	3.3	4.6	6.6	7.0	2DP(M)ZA870/0.0/2.6/3.8/5.1/7.0	870		2.6	3.8	5.1	7.0	40	
2DP(M)ZA520/3.6/5.5	520	3.6	5.5	2DP(M)ZA750/2.6/3.6/5.2/5.5	750	2.6	3.6	5.2	5.5	2DP(M)ZA1110/0.0/2.1/3.0/4.0/5.5	1110		2.1	3.0	4.0	5.5	45	
2DP(M)ZA640/3.0/4.5	640	3.0	4.5	2DP(M)ZA920/2.1/3.0/4.2/4.5	920	2.1	3.0	4.2	4.5	2DP(M)ZA1360/0.0/1.7/2.4/3.3/4.5	1360		1.7	2.4	3.3	4.5	50	
2DP(M)ZA770/2.4/3.7	770	2.4	3.7	2DP(M)ZA1120/1.7/2.4/3.5/3.7	1120	1.7	2.4	3.5	3.7	2DP(M)ZA1660/0.0/1.4/2.0/2.7/3.7	1660		1.4	2.0	2.7	3.7	55	
				2DP(M)ZA1340/1.5/2.1/2.9/3.1	1340	1.5	2.1	2.9	3.1	2DP(M)ZA1960/0.0/1.2/1.7/2.3/3.1	1960		1.2	1.7	2.3	3.1	60	
				2DP(M)ZA1570/1.2/1.7/2.5/2.7	1570	1.2	1.7	2.5	2.7	2DP(M)ZA2200/0.0/1.0/1.4/1.9/2.7	2200		1.0	1.4	1.9	2.7	65	
				2DP(M)ZA1820/1.1/1.5/2.2/2.3	1820	1.1	1.5	2.2	2.3	2DP(M)ZA2600/0.0/0.9/1.2/1.7/2.3	2600		0.9	1.2	1.7	2.3	70	
				2DP(M)ZA2080/0.7/1.1/1.5/1.9	2080	0.7	1.1	1.5	1.9	2DP(M)ZA3000/0.0/0.7/1.1/1.4/1.9	3000		0.7	1.1	1.4	1.9	75	
				2DP(M)ZA2380/0.7/1.0/1.4/1.7	2380	0.7	1.0	1.4	1.7	2DP(M)ZA3500/0.0/0.7/1.0/1.3/1.7	3500		0.7	1.0	1.3	1.7	80	
				2DP(M)ZA2600/0.6/0.9/1.2/1.5	2600	0.6	0.9	1.2	1.5	2DP(M)ZA3960/0.0/0.5/0.6/1.0/1.5	3960		0.5	0.6	1.0	1.5	85	
				2DP(M)ZA3000/0.4/0.8/1.1/1.3	3000	0.4	0.8	1.1	1.3	2DP(M)ZA4400/0.0/0.4/0.7/0.8/1.4	4400		0.4	0.7	0.8	1.4	90	
				2DP(M)ZA3340/0.0/0.7/1.0/1.2	3340	0.7	1.0	1.2		2DP(M)ZA4960/0.0/0.0/0.5/0.9/1.1	4960			0.5	0.9	1.1	95	
				2DP(M)ZA3720/0.0/0.6/0.9/1.1	3720		0.6	0.9	1.1	2DP(M)ZA5480/0.0/0.2/0.4/0.6/1.0	5480			0.2	0.4	0.6	1.0	100

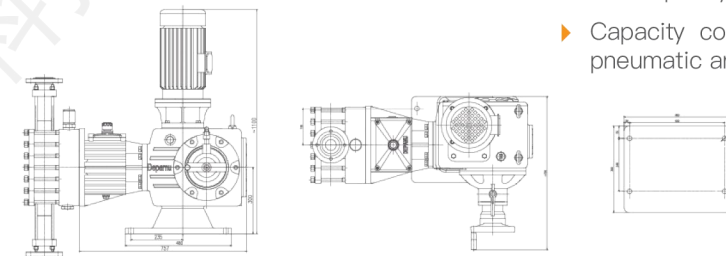
3DP(M)ZA

- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ Three or more pump heads (12 at most) can be connected in parallel; a pump with three or more heads can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of each pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.



Model (i=16)	Flow (L/h)	Motor Power		Model (i=11)	Flow (L/h)	Motor Power				Model (i=7.5)	Flow (L/h)	Motor Power						Plunger Diameter (mm)
		2.2kW/3kW Discharge Pressure MPa				2.2kW/3kW/4kW/5.5kW Discharge Pressure MPa						2.2kW/3kW/4kW/5.5kW/7.5kW Discharge Pressure MPa						
3DP(M)ZA45/45/72	45	45	72	3DP(M)ZA75/31/42/56/72	75	31	42	56	72	3DP(M)ZA210/24.0/34.0/45.0/60.0/72.0	120	24	34	45	60	72	15	
3DP(M)ZA90/31/50	90	31	50	3DP(M)ZA135/22/29/40/50	135	22	29	40	50	3DP(M)ZA270/14.0/19.0/25.0/35.0/50.0	210	14	19	25	35	50	18	
3DP(M)ZA120/25/40	120	25	40	3DP(M)ZA180/17/23/31/40	180	17	23	31	40	3DP(M)ZA345/10.0/15.0/20.0/25.0/40.0	270	10	15	20	25	40	20	
3DP(M)ZA150/20/33	150	20	33	3DP(M)ZA225/14/19/25/33	225	14	19	25	33	3DP(M)ZA450/8.0/11.0/14.0/20.0/33.0	345	8	11	14	20	33	22	
3DP(M)ZA210/16/25	210	16	25	3DP(M)ZA300/11/15/20/25	300	11	15	20	25	3DP(M)ZA720/6.0/9.0/12.0/15.0/25.0	450	6	9	12	15	25	25	
3DP(M)ZA300/9.5/12.5	300	9.5	12.5	3DP(M)ZA480/5.8/8.2/10.6/12.5	480	5.8	8.2	10.6	12.5	3DP(M)ZA990/4.0/5.8/7.6/10.2/12.5	720	4.0	5.8	7.6	10.2	12.5	30	
3DP(M)ZA450/7.0/9.2	450	7.0	9.2	3DP(M)ZA660/4.3/6.0/7.8/9.2	660	4.3	6.0	7.8	9.2	3DP(M)ZA1305/2.9/4.3/5.6/7.5/9.2	990	2.9	4.3	5.6	7.5	9.2	35	
3DP(M)ZA600/5.3/7.0	600	5.3	7.0	3DP(M)ZA885/3.3/4.6/6.0/7.0	885	3.3	4.6	6.0	7.0	3DP(M)ZA1665/2.2/3.3/4.3/5.7/7.0	1305	2.2	3.3	4.3	5.7	7.0	40	
3DP(M)ZA780/4.2/5.5	780	4.2	5.5	3DP(M)ZA1125/2.6/3.6/4.7/5.5	1125	2.6	3.6	4.7	5.5	3DP(M)ZA2040/1.8/2.6/3.4/4.5/5.5	1665	1.8	2.6	3.4	4.5	5.5	45	
3DP(M)ZA960/3.4/4.5	960	3.4	4.5	3DP(M)ZA1380/2.1/3.0/3.8/4.5	1380	2.1	3.0	3.8	4.5	3DP(M)ZA2490/1.4/2.1/2.8/3.7/4.5	2040	1.4	2.1	2.8	3.7	4.5	50	
3DP(M)ZA1160/2.8/3.7	1160	2.8	3.7	3DP(M)ZA1680/1.7/2.4/3.2/3.7	1680	1.7	2.4	3.2	3.7	3DP(M)ZA2940/1.2/1.7/2.3/3.0/3.7	2490	1.2	1.7	2.3	3.0	3.7	55	
				3DP(M)ZA2010/1.5/2.1/2.7/3.1	2010	1.5	2.1	2.7	3.1	3DP(M)ZA3300/1.0/1.5/1.9/2.5/3.1	2940	1.0	1.5	1.9	2.5	3.1	60	
				3DP(M)ZA2355/1.2/1.7/2.3/2.7	2355	1.2	1.7	2.3	2.7	3DP(M)ZA3900/0.8/1.2/1.6/2.2/2.7	3300	0.8	1.2	1.6	2.2	2.7	65	
				3DP(M)ZA2730/1.1/1.5/1.9/2.3	2730	1.1	1.5	1.9	2.3	3DP(M)ZA4500/0.7/1.1/1.4/1.9/2.3	3900	0.7	1.1	1.4	1.9	2.3	70	
				3DP(M)ZA3120/0.8/1.1/1.5/1.8	3120	0.8	1.1	1.5	1.8	3DP(M)ZA5250/0.6/0.8/1.1/1.5/2.0	4500	0.6	0.8	1.1	1.5	2.0	75	
				3DP(M)ZA3570/0.7/1.0/1.3/1.6	3570	0.7	1.0	1.3	1.6	3DP(M)ZA5940/0.5/0.7/0.9/1.3/1.7	5250	0.5	0.7	0.9	1.3	1.7	80	
				3DP(M)ZA3900/0.6/0.9/1.2/1.4	3900	0.6	0.9	1.2	1.4	3DP(M)ZA6600/0.5/0.6/0.8/1.2/1.5	5940	0.5	0.6	0.8	1.2	1.5	85	
				3DP(M)ZA4500/0.6/0.8/1.1/1.3	4500	0.6	0.8	1.1	1.3	3DP(M)ZA7440/0.4/0.6/0.8/1.0/1.4	6600	0.4	0.6	0.8	1.0	1.4	90	
				3DP(M)ZA5010/0.5/0.7/0.9/1.1	5010	0.5	0.7	0.9	1.1	3DP(M)ZA8220/0.4/0.5/0.7/0.9/1.2	7440	0.4	0.5	0.7	0.9	1.2	95	
				3DP(M)ZA5580/0.4/0.6/0.8/1.0	5580	0.4	0.6	0.8	1.0	3DP(M)ZA3870/0.3/0.5/0.6/0.8/1.1	8220	0.3	0.5	0.6	0.8	1.1	100	

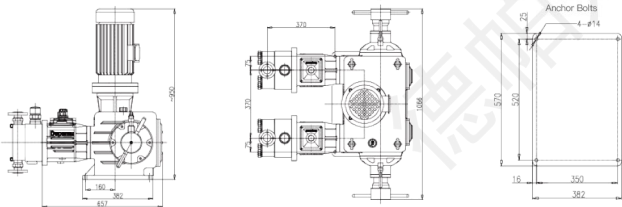
DP(M)ZAA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=11)	Flow (L/h)	Motor Power			Model (i=8.25)	Flow (L/h)	Motor Power				Plunger Diameter (mm)
		3kW/4kW/5.5kW					3kW/4kW/5.5kW/7.5kW				
		Discharge Pressure MPa		Discharge Pressure MPa							
DP(M)ZAA45/33.4/45.2/55.0	45	33.4	45.2	55.0	DP(M)ZAA65/24.8/33.4/45.2/55.0	65	24.8	33.4	45.2	55.0	18
DP(M)ZAA65/27.1/36.6/44.6	65	27.1	36.6	44.6	DP(M)ZAA90/20.1/27.1/36.6/44.6	90	20.1	27.1	36.6	44.6	20
DP(M)ZAA85/22.4/30.3/36.8	85	22.4	30.3	36.8	DP(M)ZAA120/16.6/22.4/30.3/36.8	120	16.6	22.4	30.3	36.8	22
DP(M)ZAA115/17.3/23.4/28.5	115	17.3	23.4	28.5	DP(M)ZAA160/12.8/17.3/23.4/28.5	160	12.8	17.3	23.4	28.5	25
DP(M)ZAA180/12.0/16.3/19.8	180	12.0	16.3	19.8	DP(M)ZAA250/8.9/12.0/16.3/19.8	250	8.9	12.0	16.3	19.8	30
DP(M)ZAA260/8.8/12.0/14.6	260	8.8	12.0	14.6	DP(M)ZAA350/6.6/8.8/12.0/14.6	350	6.6	8.8	12.0	14.6	35
DP(M)ZAA350/6.8/9.2/11.1	350	6.8	9.2	11.1	DP(M)ZAA480/5.0/6.8/9.2/11.1	480	5.0	6.8	9.2	11.1	40
DP(M)ZAA460/5.3/7.2/8.8	460	5.3	7.2	8.8	DP(M)ZAA620/4.0/5.3/7.2/8.8	620	4.0	5.3	7.2	8.8	45
DP(M)ZAA580/4.3/5.9/7.1	580	4.3	5.9	7.1	DP(M)ZAA770/3.2/4.3/5.9/7.1	770	3.2	4.3	5.9	7.1	50
DP(M)ZAA700/3.6/4.8/5.9	700	3.6	4.8	5.9	DP(M)ZAA900/2.7/3.6/4.8/5.9	900	2.7	3.6	4.8	5.9	55
DP(M)ZAA800/3.0/4.1/5.0	800	3.0	4.1	5.0	DP(M)ZAA1100/2.2/3.0/4.1/5.0	1100	2.2	3.0	4.1	5.0	60
DP(M)ZAA990/2.6/3.5/4.2	990	2.6	3.5	4.2	DP(M)ZAA1300/1.9/2.6/3.5/4.2	1300	1.9	2.6	3.5	4.2	65
DP(M)ZAA1100/2.2/3.0/3.6	1100	2.2	3.0	3.6	DP(M)ZAA1500/1.6/2.2/3.0/3.6	1500	1.6	2.2	3.0	3.6	70
DP(M)ZAA1300/1.9/2.6/3.2	1300	1.9	2.6	3.2	DP(M)ZAA1800/1.4/1.9/2.6/3.2	1800	1.4	1.9	2.6	3.2	75
DP(M)ZAA1500/1.7/2.3/2.8	1500	1.7	2.3	2.8	DP(M)ZAA2000/1.3/1.7/2.3/2.8	2000	1.3	1.7	2.3	2.8	80
DP(M)ZAA1700/1.5/2.0/2.5	1700	1.5	2.0	2.5	DP(M)ZAA2300/1.1/1.5/2.0/2.5	2300	1.1	1.5	2.0	2.5	85
DP(M)ZAA1900/1.3/1.8/2.2	1900	1.3	1.8	2.2	DP(M)ZAA2590/1.0/1.3/1.8/2.2	2590	1.0	1.3	1.8	2.2	90
DP(M)ZAA2100/1.1/1.4/1.9	2100	1.1	1.4	1.9	DP(M)ZAA2890/0.8/1.1/1.5/1.9	2890	0.8	1.1	1.5	1.9	95
DP(M)ZAA2400/1.0/1.3/1.7	2400	1.0	1.3	1.7	DP(M)ZAA3200/0.7/1.0/1.3/1.8	3200	0.7	1.0	1.3	1.8	100
DP(M)ZAA2600/0.9/1.2/1.6	2600	0.9	1.2	1.6	DP(M)ZAA3500/0.7/0.9/1.2/1.6	3500	0.7	0.9	1.2	1.6	105
DP(M)ZAA2900/0.8/1.1/1.4	2900	0.8	1.1	1.4	DP(M)ZAA3870/0.3/0.8/1.1/1.4	3870	0.3	0.8	1.1	1.4	110
DP(M)ZAA3100/0.0/1.0/1.3	3100		1.0	1.3	DP(M)ZAA4200/0.0/0.7/1.0/1.3	4200		0.7	1.0	1.3	115
DP(M)ZAA3400/0.0/0.9/1.2	3400		0.9	1.2	DP(M)ZAA4600/0.0/0.7/0.9/1.2	4600		0.7	0.9	1.2	120

2DP (M) ZAA

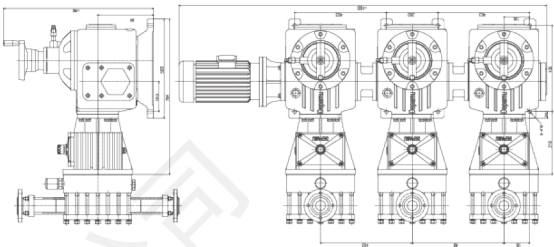
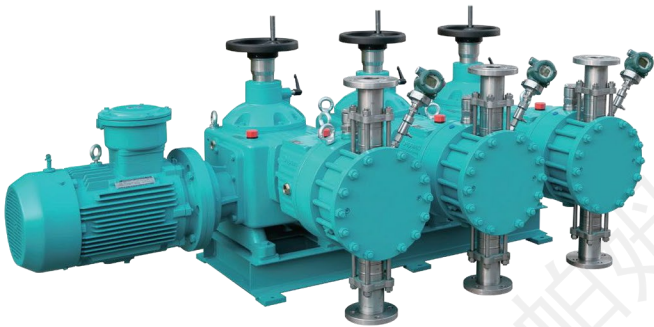


- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=11)	Flow (L/h)	Motor Power				Model (i=8.25)	Flow (L/h)	Motor Power					Plunger Diameter (mm)
		3kW/4kW/5.5kW/7.5						3kW/4kW/5.5kW/7.5kW/11kW					
		Discharge Pressure MPa						Discharge Pressure MPa					
2DP(M)ZAA90/27.5/35.4/51.1/55.0	90	27.5	35.4	51.1	55.0	2DP(M)ZAA130/20.4/27.5/37.4/51.1/55.0	130	20.4	27.5	37.4	51.1	55.0	18
2DP(M)ZAA130/22.3/28.7/41.4/44.6	130	22.3	28.7	41.4	44.6	2DP(M)ZAA180/16.6/22.3/30.3/41.4/44.6	180	16.6	22.3	30.3	41.4	44.6	20
2DP(M)ZAA170/18.4/23.7/34.2/36.8	170	18.4	23.7	34.2	36.8	2DP(M)ZAA240/13.7/18.4/25.0/34.2/36.8	240	13.7	18.4	25.0	34.2	36.8	22
2DP(M)ZAA230/14.3/18.3/26.5/28.5	230	14.3	18.3	26.5	28.5	2DP(M)ZAA320/10.6/14.3/19.4/26.5/28.5	320	10.6	14.3	19.4	26.5	28.5	25
2DP(M)ZAA360/9.9/12.7/18.4/19.8	360	9.9	12.7	18.4	19.8	2DP(M)ZAA500/7.4/9.9/13.4/18.4/19.8	500	7.4	9.9	13.4	18.4	19.8	30
2DP(M)ZAA520/7.3/9.4/13.5/14.6	520	7.3	9.4	13.5	14.6	2DP(M)ZAA700/5.4/7.3/9.9/13.5/14.6	700	5.4	7.3	9.9	13.5	14.6	35
2DP(M)ZAA700/5.6/7.2/10.4/11.1	700	5.6	7.2	10.4	11.1	2DP(M)ZAA960/4.1/5.6/7.6/10.4/11.1	960	4.1	5.6	7.6	10.4	11.1	40
2DP(M)ZAA920/4.4/5.7/8.2/8.8	920	4.4	5.7	8.2	8.8	2DP(M)ZAA1240/3.3/4.4/6.0/8.2/8.8	1240	3.3	4.4	6.0	8.2	8.8	45
2DP(M)ZAA1160/3.6/4.6/6.6/7.1	1160	3.6	4.6	6.6	7.1	2DP(M)ZAA1540/2.6/3.6/4.8/6.6/7.1	1540	2.6	3.6	4.8	6.6	7.1	50
2DP(M)ZAA1400/2.9/3.8/5.5/5.9	1400	2.9	3.8	5.5	5.9	2DP(M)ZAA1800/2.2/2.9/4.0/5.5/5.9	1800	2.2	2.9	4.0	5.5	5.9	55
2DP(M)ZAA1600/2.5/3.2/4.6/5.0	1600	2.5	3.2	4.6	5.0	2DP(M)ZAA2200/1.8/2.5/3.4/4.6/5.0	2200	1.8	2.5	3.4	4.6	5.0	60
2DP(M)ZAA1980/2.1/2.7/3.9/4.2	1980	2.1	2.7	3.9	4.2	2DP(M)ZAA2600/1.6/2.1/2.9/3.9/4.2	2600	1.6	2.1	2.9	3.9	4.2	65
2DP(M)ZAA2200/1.8/2.3/3.4/3.6	2200	1.8	2.3	3.4	3.6	2DP(M)ZAA3000/1.4/1.8/2.5/3.4/3.6	3000	1.4	1.8	2.5	3.4	3.6	70
2DP(M)ZAA2600/1.6/2.0/2.9/3.2	2600	1.6	2.0	2.9	3.2	2DP(M)ZAA3600/1.2/1.6/2.2/2.9/3.2	3600	1.2	1.6	2.2	2.9	3.2	75
2DP(M)ZAA3000/1.4/1.8/2.6/2.8	3000	1.4	1.8	2.6	2.8	2DP(M)ZAA4000/1.0/1.4/1.9/2.6/2.8	4000	1.0	1.4	1.9	2.6	2.8	80
2DP(M)ZAA3400/1.2/1.6/2.3/2.5	3400	1.2	1.6	2.3	2.5	2DP(M)ZAA4600/0.9/1.2/1.7/2.3/2.5	4600	0.9	1.2	1.7	2.3	2.5	85
2DP(M)ZAA3800/1.1/1.4/2.0/2.2	3800	1.1	1.4	2.0	2.2	2DP(M)ZAA5180/0.8/1.1/1.5/2.0/2.2	5180	0.8	1.1	1.5	2.0	2.2	90
2DP(M)ZAA4200/0.9/1.2/1.6/2.0	4200	0.9	1.2	1.6	2.0	2DP(M)ZAA5780/0.6/0.9/1.2/1.6/2.0	5780	0.6	0.9	1.2	1.6	2.0	95
2DP(M)ZAA4800/0.8/1.1/1.4/1.8	4800	0.8	1.1	1.4	1.8	2DP(M)ZAA6400/0.6/0.8/1.1/1.5/1.8	6400	0.6	0.8	1.1	1.5	1.8	100
2DP(M)ZAA5200/0.7/1.0/1.3/1.6	5200	0.7	1.0	1.3	1.6	2DP(M)ZAA7000/0.5/0.7/1.0/1.3/1.6	7000	0.5	0.7	1.0	1.3	1.6	105
2DP(M)ZAA5800/0.6/0.9/1.2/1.5	5800	0.6	0.9	1.2	1.5	2DP(M)ZAA7740/0.5/0.6/0.9/1.2/1.5	7740	0.5	0.6	0.9	1.2	1.5	110
2DP(M)ZAA6200/0.0/0.8/1.1/1.3	6200		0.8	1.1	1.3	2DP(M)ZAA8400/0.0/0.2/0.8/1.1/1.3	8400		0.2	0.8	1.1	1.3	115
2DP(M)ZAA6800/0.0/0.8/1.0/1.2	6800		0.8	1.0	1.2	2DP(M)ZAA9200/0.0/0.2/0.7/1.0/1.2	9200		0.2	0.7	1.0	1.2	120

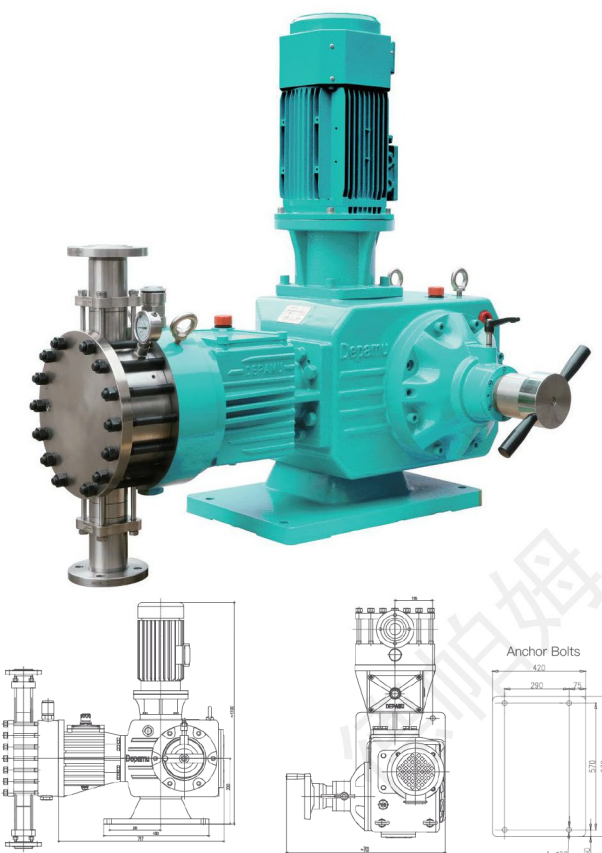
3DP (M) ZAA

- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.



Model (i=11)	Flow (L/h)	Motor Power				Model (i=8.25)	Flow (L/h)	Motor Power				Plunger Diameter (mm)
		4kW/5.5kW/7.5kW/11kW						5.5kW/7.5kW/11kW				
		Discharge Pressure MPa						Discharge Pressure MPa				
3DP(M)ZAA135/24.8/35.4/51.1/55.0	135	24.8	35.4	51.1	55.0	3DP(M)ZAA195/27.5/37.4/55.0	195	27.5	37.4	55.0	18	
3DP(M)ZAA195/20.1/28.7/41.4/44.6	195	20.1	28.7	41.4	44.6	3DP(M)ZAA270/22.3/30.3/44.6	270	22.3	30.3	44.6	20	
3DP(M)ZAA255/16.6/23.7/34.2/36.8	255	16.6	23.7	34.2	36.8	3DP(M)ZAA360/18.4/25.0/36.8	360	18.4	25.0	36.8	22	
3DP(M)ZAA345/12.8/18.3/26.5/28.5	345	12.8	18.3	26.5	28.5	3DP(M)ZAA480/14.3/19.4/28.5	480	14.3	19.4	28.5	25	
3DP(M)ZAA540/8.9/12.7/18.4/19.8	540	8.9	12.7	18.4	19.8	3DP(M)ZAA750/9.9/13.4/19.8	750	9.9	13.4	19.8	30	
3DP(M)ZAA780/6.6/9.4/13.5/14.6	780	6.6	9.4	13.5	14.6	3DP(M)ZAA1050/7.3/9.9/14.6	1050	7.3	9.9	14.6	35	
3DP(M)ZAA1050/5.0/7.2/10.4/11.1	1050	5.0	7.2	10.4	11.1	3DP(M)ZAA1440/5.6/7.6/11.1	1440	5.6	7.6	11.1	40	
3DP(M)ZAA1380/4.0/5.7/8.2/8.8	1380	4.0	5.7	8.2	8.8	3DP(M)ZAA1860/4.4/6.0/8.8	1860	4.4	6.0	8.8	45	
3DP(M)ZAA1740/3.2/4.6/6.6/7.1	1740	3.2	4.6	6.6	7.1	3DP(M)ZAA2310/3.6/4.8/7.1	2310	3.6	4.8	7.1	50	
3DP(M)ZAA2100/2.7/3.8/5.5/5.9	2100	2.7	3.8	5.5	5.9	3DP(M)ZAA2700/2.9/4.0/5.9	2700	2.9	4.0	5.9	55	
3DP(M)ZAA2400/2.2/3.2/4.6/5.0	2400	2.2	3.2	4.6	5.0	3DP(M)ZAA3300/2.5/3.4/5.0	3300	2.5	3.4	5.0	60	
3DP(M)ZAA2970/1.9/2.7/3.9/4.2	2970	1.9	2.7	3.9	4.2	3DP(M)ZAA3900/2.1/2.9/4.2	3900	2.1	2.9	4.2	65	
3DP(M)ZAA3300/1.6/2.3/3.4/3.6	3300	1.6	2.3	3.4	3.6	3DP(M)ZAA4500/1.8/2.5/3.6	4500	1.8	2.5	3.6	70	
3DP(M)ZAA3900/1.4/2.0/2.9/3.2	3900	1.4	2.0	2.9	3.2	3DP(M)ZAA5400/1.6/2.2/3.2	5400	1.6	2.2	3.2	75	
3DP(M)ZAA4500/1.3/1.8/2.6/2.8	4500	1.3	1.8	2.6	2.8	3DP(M)ZAA6000/1.4/1.9/2.8	6000	1.4	1.9	2.8	80	
3DP(M)ZAA5100/1.1/1.6/2.3/2.5	5100	1.1	1.6	2.3	2.5	3DP(M)ZAA6900/1.2/1.7/2.5	6900	1.2	1.7	2.5	85	
3DP(M)ZAA5700/1.0/1.4/2.0/2.2	5700	1.0	1.4	2.0	2.2	3DP(M)ZAA7770/1.1/1.5/2.2	7770	1.1	1.5	2.2	90	
3DP(M)ZAA6300/0.8/1.1/1.5/2.0	6300	0.8	1.1	1.5	2.0	3DP(M)ZAA8670/0.8/1.2/1.7	8670	0.8	1.2	1.7	95	
3DP(M)ZAA7200/0.7/1.0/1.4/1.8	7200	0.7	1.0	1.4	1.8	3DP(M)ZAA9600/0.8/1.0/1.6	9600	0.8	1.0	1.6	100	
3DP(M)ZAA7800/0.7/0.9/1.3/1.6	7800	0.7	0.9	1.3	1.6	3DP(M)ZAA10500/0.7/0.9/1.4	10500	0.7	0.9	1.4	105	
3DP(M)ZAA8700/0.6/0.8/1.1/1.5	8700	0.6	0.8	1.1	1.5	3DP(M)ZAA11610/0.6/0.9/1.3	11610	0.6	0.9	1.3	110	
3DP(M)ZAA9300/0.6/0.8/1.0/1.3	9300	0.6	0.8	1.0	1.3	3DP(M)ZAA12600/0.6/0.8/1.2	12600	0.6	0.8	1.2	115	
3DP(M)ZAA10200/0.5/0.7/1.0/1.2	1020	0.5	0.7	1.0	1.2	3DP(M)ZAA13800/0.5/0.7/1.1	13800	0.5	0.7	1.1	120	

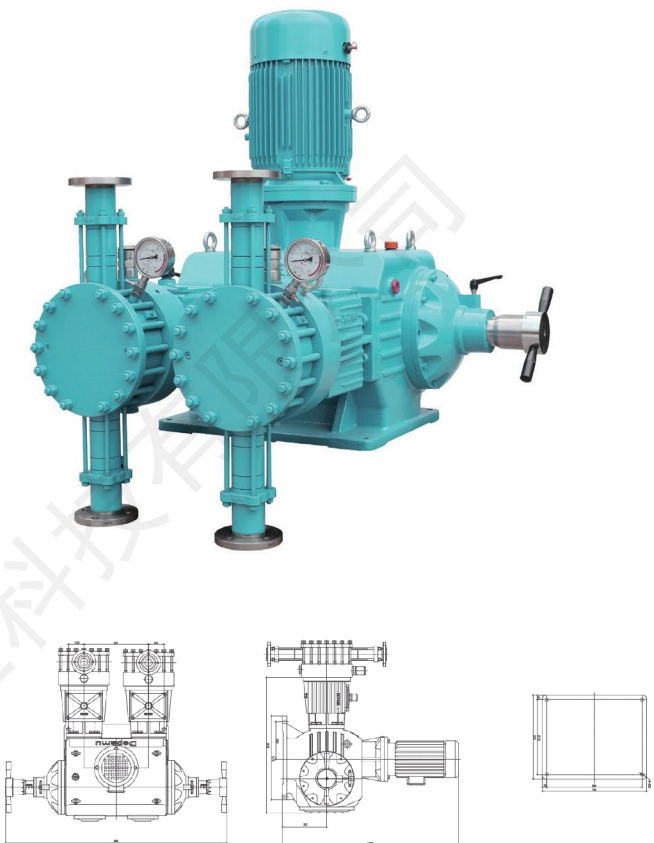
DP (M) DA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=11)	Flow (L/h)	Motor Power			Model (i=8.25)	Flow (L/h)	Motor Power				Plunger Diameter (mm)
		5.5kW/7.5kW/11kW					5.5kW/7.5kW/11kW/15kW				
		Discharge Pressure MPa					Discharge Pressure MPa				
DP(M)DA55/44.6/60.5/79.6	55	44.6	60.5	79.6	DP(M)DA90/31.8/44.6/66.9/79.6	90	31.8	44.6	66.9	79.6	20
DP(M)DA80/36.8/50.0/65.8	80	36.8	50.0	65.8	DP(M)DA120/26.3/36.8/55.3/65.8	120	26.3	36.8	55.3	65.8	22
DP(M)DA120/28.5/38.7/51.0	120	28.5	38.7	51.0	DP(M)DA180/20.4/28.5/42.8/51.0	180	20.4	28.5	42.8	51.0	25
DP(M)DA200/19.8/26.9/35.4	200	19.8	26.9	35.4	DP(M)DA300/14.2/19.8/29.7/35.4	300	14.2	19.8	29.7	35.4	30
DP(M)DA300/14.6/19.8/26.0	300	14.6	19.8	26.0	DP(M)DA400/10.4/14.5/21.8/26.0	400	10.4	14.5	21.8	26.0	35
DP(M)DA420/11.1/15.1/19.9	420	11.1	15.1	19.9	DP(M)DA600/8.0/11.1/16.7/19.9	600	8.0	11.1	16.7	19.9	40
DP(M)DA550/8.8/12.0/15.7	550	8.8	12.0	15.7	DP(M)DA780/6.3/8.8/13.2/15.7	780	6.3	8.8	13.2	15.7	45
DP(M)DA700/7.1/9.7/12.7	700	7.1	9.7	12.7	DP(M)DA990/5.1/7.1/10.7/12.7	990	5.1	7.1	10.7	12.7	50
DP(M)DA870/5.9/8.0/10.5	870	5.9	8.0	10.5	DP(M)DA1200/4.2/5.9/8.8/10.5	1200	4.2	5.9	8.8	10.5	55
DP(M)DA1000/5.0/6.7/8.8	1000	5.0	6.7	8.8	DP(M)DA1400/3.5/5.0/7.4/8.8	1400	3.5	5.0	7.4	8.8	60
DP(M)DA1200/4.2/5.7/7.5	1200	4.2	5.7	7.5	DP(M)DA1700/3.0/4.2/6.3/7.5	1700	3.0	4.2	6.3	7.5	65
DP(M)DA1400/3.6/4.9/6.5	1400	3.6	4.9	6.5	DP(M)DA2000/2.6/3.6/5.5/6.5	2000	2.6	3.6	5.5	6.5	70
DP(M)DA1700/3.2/4.3/5.7	1700	3.2	4.3	5.7	DP(M)DA2300/2.3/3.2/4.8/5.7	2300	2.3	3.2	4.8	5.7	75
DP(M)DA1900/2.8/3.8/5.0	1900	2.8	3.8	5.0	DP(M)DA2600/2.0/2.8/4.2/5.0	2600	2.0	2.8	4.2	5.0	80
DP(M)DA2200/2.5/3.4/4.4	2200	2.5	3.4	4.4	DP(M)DA3000/1.8/2.5/3.7/4.4	3000	1.8	2.5	3.7	4.4	85
DP(M)DA2400/2.2/3.0/3.9	2400	2.2	3.0	3.9	DP(M)DA3350/1.6/2.2/3.3/3.9	3350	1.6	2.2	3.3	3.9	90
DP(M)DA2700/1.8/2.4/3.5	2700	1.8	2.4	3.5	DP(M)DA3750/1.3/1.8/2.8/3.5	3750	1.3	1.8	2.8	3.5	95
DP(M)DA3000/1.6/2.2/3.2	3000	1.6	2.2	3.2	DP(M)DA4150/1.2/1.7/2.5/3.2	4150	1.2	1.7	2.5	3.2	100
DP(M)DA3400/1.5/2.0/2.9	3400	1.5	2.0	2.9	DP(M)DA4580/1.1/1.5/2.3/2.9	4580	1.1	1.5	2.3	2.9	105
DP(M)DA3700/1.3/1.8/2.6	3700	1.3	1.8	2.6	DP(M)DA5000/1.0/1.4/2.1/2.6	5000	1.0	1.4	2.1	2.6	110
DP(M)DA4100/1.2/1.7/2.4	4100	1.2	1.7	2.4	DP(M)DA5500/0.9/1.3/1.9/2.4	5500	0.9	1.3	1.9	2.4	115
DP(M)DA4500/1.1/1.5/2.2	4500	1.1	1.5	2.2	DP(M)DA5990/0.8/1.2/1.7/2.2	5990	0.8	1.2	1.7	2.2	120
DP(M)DA4800/1.0/1.4/2.0	4800	1.0	1.4	2.0	DP(M)DA6500/0.8/1.1/1.6/2.0	6500	0.8	1.1	1.6	2.0	125
DP(M)DA5200/0.9/1.3/1.9	5200		1.3	1.9	DP(M)DA7000/0.7/1.0/1.5/1.9	7000		1.0	1.5	1.9	130

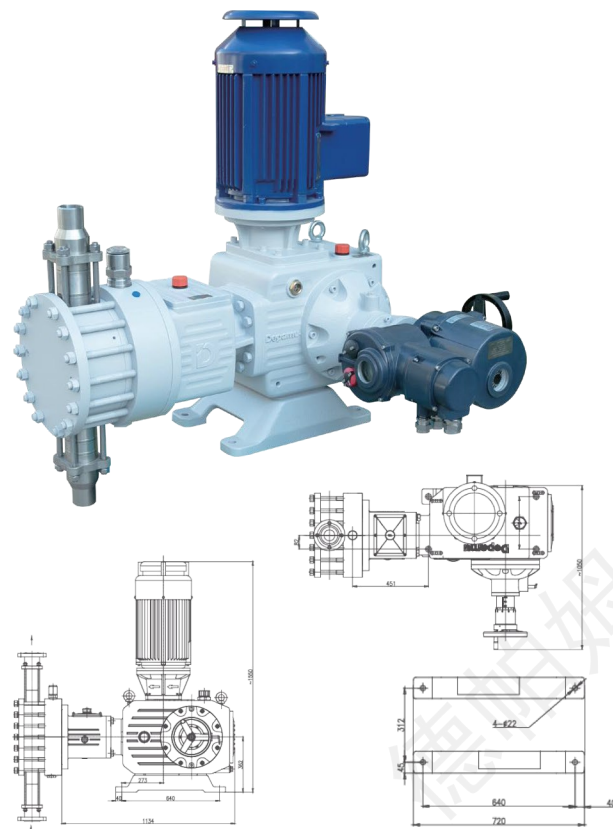
2DP (M) DA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=11)	Flow (L/h)	Motor Power				Model (i=8.25)	Flow (L/h)	Motor Power					Plunger Diameter (mm)
		5.5kW/7.5kW/11kW/15kW						5.5kW/7.5kW/11kW/15kW/18.5kW					
		Discharge Pressure MPa						Discharge Pressure MPa					
2DP(M)DA110/38.2/49.4/73.2/79.6	110	38.2	49.4	73.2	79.6	2DP(M)DA180/26.1/38.2/54.1/73.2/79.6	180	26.1	38.2	54.1	73.2	79.6	20
2DP(M)DA160/31.6/40.8/60.5/65.8	160	31.6	40.8	60.5	65.8	2DP(M)DA240/21.6/31.6/44.7/60.5/65.8	240	21.6	31.6	44.7	60.5	65.8	22
2DP(M)DA240/24.5/31.6/46.9/51.0	240	24.5	31.6	46.9	51.0	2DP(M)DA360/16.7/24.5/34.6/46.9/51.0	360	16.7	24.5	34.6	46.9	51.0	25
2DP(M)DA400/17.0/21.9/32.6/35.4	400	17.0	21.9	32.6	35.4	2DP(M)DA600/11.6/17.0/24.1/32.6/35.4	600	11.6	17.0	24.1	32.6	35.4	30
2DP(M)DA600/12.5/16.1/23.9/26.0	600	12.5	16.1	23.9	26.0	2DP(M)DA800/8.5/12.5/17.7/23.9/26.0	800	8.5	12.5	17.7	23.9	26.0	35
2DP(M)DA840/9.6/12.3/18.3/19.9	840	9.6	12.3	18.3	19.9	2DP(M)DA1200/6.5/9.6/13.5/18.3/19.9	1200	6.5	9.6	13.5	18.3	19.9	40
2DP(M)DA1100/7.5/9.8/14.5/15.7	1100	7.5	9.8	14.5	15.7	2DP(M)DA1560/5.2/7.5/10.7/14.5/15.7	1560	5.2	7.5	10.7	14.5	15.7	45
2DP(M)DA1400/6.1/7.9/11.7/12.7	1400	6.1	7.9	11.7	12.7	2DP(M)DA1980/4.2/6.1/8.7/11.7/12.7	1980	4.2	6.1	8.7	11.7	12.7	50
2DP(M)DA1740/5.1/6.5/9.7/10.5	1740	5.1	6.5	9.7	10.5	2DP(M)DA2400/3.5/5.1/7.2/9.7/10.5	2400	3.5	5.1	7.2	9.7	10.5	55
2DP(M)DA2000/4.2/5.5/8.1/8.8	2000	4.2	5.5	8.1	8.8	2DP(M)DA2800/2.9/4.2/6.0/8.1/8.8	2800	2.9	4.2	6.0	8.1	8.8	60
2DP(M)DA2400/3.6/4.7/6.9/7.5	2400	3.6	4.7	6.9	7.5	2DP(M)DA3400/2.5/3.6/5.1/6.9/7.5	3400	2.5	3.6	5.1	6.9	7.5	65
2DP(M)DA2800/3.1/4.0/6.0/6.5	2800	3.1	4.0	6.0	6.5	2DP(M)DA4000/2.1/3.1/4.4/6.0/6.5	4000	2.1	3.1	4.4	6.0	6.5	70
2DP(M)DA3400/2.7/3.5/5.2/5.7	3400	2.7	3.5	5.2	5.7	2DP(M)DA4600/1.9/2.7/3.8/5.2/5.7	4600	1.9	2.7	3.8	5.2	5.7	75
2DP(M)DA3800/2.4/3.1/4.6/5.0	3800	2.4	3.1	4.6	5.0	2DP(M)DA5200/1.6/2.4/3.4/4.6/5.0	5200	1.6	2.4	3.4	4.6	5.0	80
2DP(M)DA4400/2.1/2.7/4.1/4.4	4400	2.1	2.7	4.1	4.4	2DP(M)DA6000/1.4/2.1/3.0/4.1/4.4	6000	1.4	2.1	3.0	4.1	4.4	85
2DP(M)DA4800/1.9/2.4/3.6/3.9	4800	1.9	2.4	3.6	3.9	2DP(M)DA6700/1.3/1.9/2.7/3.6/3.9	6700	1.3	1.9	2.7	3.6	3.9	90
2DP(M)DA5400/1.4/2.0/2.9/3.5	5400	1.4	2.0	2.9	3.5	2DP(M)DA7500/1.1/1.5/2.2/3.1/3.5	7500	1.1	1.5	2.2	3.1	3.5	95
2DP(M)DA6000/1.3/1.8/2.6/3.2	6000	1.3	1.8	2.6	3.2	2DP(M)DA8300/1.0/1.3/2.0/2.8/3.2	8300	1.0	1.3	2.0	2.8	3.2	100
2DP(M)DA6800/1.2/1.6/2.4/2.9	6800	1.2	1.6	2.4	2.9	2DP(M)DA9160/0.9/1.2/1.8/2.5/2.9	9160	0.9	1.2	1.8	2.5	2.9	105
2DP(M)DA7400/1.1/1.5/2.2/2.6	7400	1.1	1.5	2.2	2.6	2DP(M)DA10000/0.8/1.1/1.6/2.3/2.6	10000	0.8	1.1	1.6	2.3	2.6	110
2DP(M)DA8200/1.0/1.3/2.0/2.4	8200	1.0	1.3	2.0	2.4	2DP(M)DA11000/0.7/1.0/1.5/2.1/2.4	11000	0.7	1.0	1.5	2.1	2.4	115
2DP(M)DA9000/0.9/1.2/1.8/2.2	9000	0.9	1.2	1.8	2.2	2DP(M)DA11980/0.7/0.9/1.4/1.9/2.2	11980	0.7	0.9	1.4	1.9	2.2	120
2DP(M)DA9600/0.8/1.1/1.7/2.0	9600	0.8	1.1	1.7	2.0	2DP(M)DA13000/0.6/0.9/1.3/1.8/2.0	13000	0.6	0.9	1.3	1.8	2.0	125

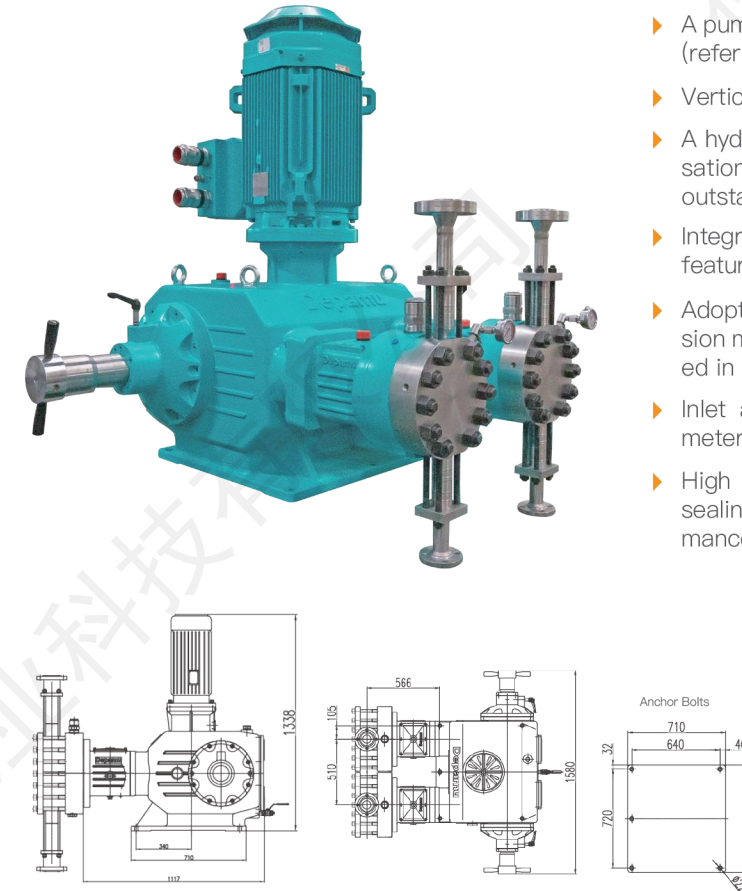
DP (M) DAA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=11)	Flow (L/h)	Motor Power			Model (i=8.25)	Flow (L/h)	Motor Power					Plunger Diameter (mm)
		7.5kW/11kW/15kW					7.5kW/11kW/15kW/18.5kW/22kW					
		Discharge Pressure MPa					Discharge Pressure MPa					
DP(M)DAA120/34.6/51.0/71.3	120	34.6	51.0	71.3	DP(M)DAA200/22.4/34.6/48.9/57.1/69.3	200	22.4	34.6	48.9	57.1	69.3	25
DP(M)DAA220/24.1/35.4/49.5	220	24.1	35.4	49.5	DP(M)DAA350/15.6/24.1/34.0/39.6/48.1	350	15.6	24.1	34.0	39.6	48.1	30
DP(M)DAA340/17.7/26.0/36.4	340	17.7	26.0	36.4	DP(M)DAA530/11.4/17.7/25.0/29.1/35.4	530	11.4	17.7	25.0	29.1	35.4	35
DP(M)DAA485/13.5/19.9/27.9	485	13.5	19.9	27.9	DP(M)DAA740/8.8/13.5/19.1/22.3/27.1	740	8.8	13.5	19.1	22.3	27.1	40
DP(M)DAA650/10.7/15.7/22.0	650	10.7	15.7	22.0	DP(M)DAA990/6.9/10.7/15.1/17.6/21.4	990	6.9	10.7	15.1	17.6	21.4	45
DP(M)DAA840/8.7/12.7/17.8	840	8.7	12.7	17.8	DP(M)DAA1200/5.6/8.7/12.2/14.3/17.3	1200	5.6	8.7	12.2	14.3	17.3	50
DP(M)DAA1000/7.2/10.5/14.7	1000	7.2	10.5	14.7	DP(M)DAA1500/4.6/7.2/10.1/11.8/14.3	1500	4.6	7.2	10.1	11.8	14.3	55
DP(M)DAA1200/6.0/8.8/12.4	1200	6.0	8.8	12.4	DP(M)DAA1900/3.9/6.0/8.5/9.9/12.0	1900	3.9	6.0	8.5	9.9	12.0	60
DP(M)DAA1500/5.1/7.5/10.6	1500	5.1	7.5	10.6	DP(M)DAA2200/3.3/5.1/7.2/8.4/10.3	2200	3.3	5.1	7.2	8.4	10.3	65
DP(M)DAA1800/4.4/6.5/9.1	1800	4.4	6.5	9.1	DP(M)DAA2600/2.9/4.4/6.2/7.3/8.8	2600	2.9	4.4	6.2	7.3	8.8	70
DP(M)DAA2000/3.8/5.7/7.9	2000	3.8	5.7	7.9	DP(M)DAA3000/2.5/3.8/5.4/6.3/7.7	3000	2.5	3.8	5.4	6.3	7.7	75
DP(M)DAA2400/3.4/5.0/7.0	2400	3.4	5.0	7.0	DP(M)DAA3500/2.2/3.4/4.8/5.6/6.8	3500	2.2	3.4	4.8	5.6	6.8	80
DP(M)DAA2700/3.0/4.4/6.2	2700	3.0	4.4	6.2	DP(M)DAA4000/1.9/3.0/4.2/4.9/6.0	4000	1.9	3.0	4.2	4.9	6.0	85
DP(M)DAA3000/2.7/3.9/5.5	3000	2.7	3.9	5.5	DP(M)DAA4500/1.7/2.7/3.8/4.4/5.3	4500	1.7	2.7	3.8	4.4	5.3	90
DP(M)DAA3400/2.2/3.4/4.9	3400	2.2	3.4	4.9	DP(M)DAA5000/1.5/2.3/3.1/3.9/4.5	5000	1.5	2.3	3.1	3.9	4.5	95
DP(M)DAA3800/2.0/3.0/4.5	3800	2.0	3.0	4.5	DP(M)DAA5600/1.4/2.0/2.8/3.5/4.1	5600	1.4	2.0	2.8	3.5	4.1	100
DP(M)DAA4200/1.8/2.8/4.0	4200	1.8	2.8	4.0	DP(M)DAA6200/1.2/1.8/2.6/3.2/3.7	6200	1.2	1.8	2.6	3.2	3.7	105
DP(M)DAA4600/1.7/2.5/3.7	4600	1.7	2.5	3.7	DP(M)DAA6800/1.1/1.7/2.3/2.9/3.4	6800	1.1	1.7	2.3	2.9	3.4	110
DP(M)DAA5100/1.5/2.3/3.4	5100	1.5	2.3	3.4	DP(M)DAA7500/1.0/1.5/2.1/2.6/3.1	7500	1.0	1.5	2.1	2.6	3.1	115
DP(M)DAA5600/1.4/2.1/3.1	5600	1.4	2.1	3.1	DP(M)DAA8200/0.9/1.4/2.0/2.4/2.8	8200	0.9	1.4	2.0	2.4	2.8	120
DP(M)DAA6100/1.3/1.9/2.9	6100	1.3	1.9	2.9	DP(M)DAA8900/0.9/1.3/1.8/2.2/2.6	8900	0.9	1.3	1.8	2.2	2.6	125
DP(M)DAA6600/1.2/1.8/2.6	6600	1.2	1.8	2.6	DP(M)DAA9700/0.8/1.2/1.7/2.1/2.4	9700	0.8	1.2	1.7	2.1	2.4	130
DP(M)DAA7100/1.1/1.7/2.4	7100	1.1	1.7	2.4	DP(M)DAA10400/0.7/1.1/1.5/1.9/2.2	10400	0.7	1.1	1.5	1.9	2.2	135
DP(M)DAA7700/1.0/1.6/2.3	7700	1.0	1.6	2.3	DP(M)DAA11200/0.7/1.0/1.4/1.8/2.1	11200	0.7	1.0	1.4	1.8	2.1	140
DP(M)DAA8200/1.0/1.4/2.1	8200	1.0	1.4	2.1	DP(M)DAA12100/0.6/1.0/1.3/1.7/1.9	12100	0.6	1.0	1.3	1.7	1.9	145

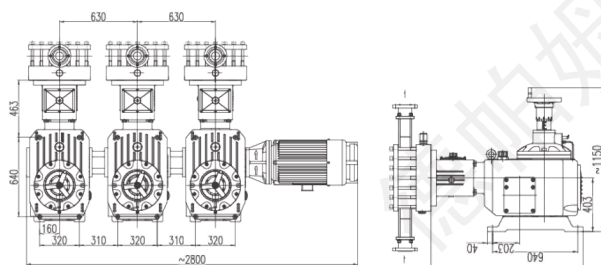
2DP (M) DAA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=11)	Flow (L/h)	Motor Power				Model (i=8.25)	Flow (L/h)	Motor Power						Plunger Diameter (mm)
		7.5kW/11kW/15kW/18.5kW						7.5kW/11kW/15kW/18.5kW/22kW/30kW						
		Discharge Pressure MPa						Discharge Pressure MPa						
2DP(M)DAA240/28.5/40.8/57.1/69.3	240	28.5	40.8	57.1	69.3	2DP(M)DAA400/19.4/28.5/38.7/48.9/57.1/71.3	400	19.4	28.5	38.7	48.9	57.1	71.3	25
2DP(M)DAA440/19.8/28.3/39.6/48.1	440	19.8	28.3	39.6	48.1	2DP(M)DAA700/13.4/19.8/26.9/34.0/39.6/49.5	700	13.4	19.8	26.9	34.0	39.6	49.5	30
2DP(M)DAA680/14.6/20.8/29.1/35.4	680	14.6	20.8	29.1	35.4	2DP(M)DAA1060/9.9/14.6/19.8/25.0/29.1/36.4	1060	9.9	14.6	19.8	25.0	29.1	36.4	35
2DP(M)DAA970/11.1/15.9/22.3/27.1	970	11.1	15.9	22.3	27.1	2DP(M)DAA1480/7.6/11.1/15.1/19.1/22.3/27.9	1480	7.6	11.1	15.1	19.1	22.3	27.9	40
2DP(M)DAA1300/8.8/12.6/17.6/21.4	1300	8.8	12.6	17.6	21.4	2DP(M)DAA1980/6.0/8.8/12.0/15.1/17.6/22.0	1980	6.0	8.8	12.0	15.1	17.6	22.0	45
2DP(M)DAA1680/7.1/10.2/14.3/17.3	1680	7.1	10.2	14.3	17.3	2DP(M)DAA2400/4.8/7.1/9.7/12.2/14.3/17.8	2400	4.8	7.1	9.7	12.2	14.3	17.8	50
2DP(M)DAA2000/5.9/8.4/11.8/14.3	2000	5.9	8.4	11.8	14.3	2DP(M)DAA3000/4.0/5.9/8.0/10.1/11.8/14.7	3000	4.0	5.9	8.0	10.1	11.8	14.7	55
2DP(M)DAA2400/5.0/7.1/9.9/12.0	2400	5.0	7.1	9.9	12.0	2DP(M)DAA3800/3.4/5.0/6.7/8.5/9.9/12.4	3800	3.4	5.0	6.7	8.5	9.9	12.4	60
2DP(M)DAA3000/4.2/6.0/8.4/10.3	3000	4.2	6.0	8.4	10.3	2DP(M)DAA4400/2.9/4.2/5.7/7.2/8.4/10.6	4400	2.9	4.2	5.7	7.2	8.4	10.6	65
2DP(M)DAA3600/3.6/5.2/7.3/8.8	3600	3.6	5.2	7.3	8.8	2DP(M)DAA5200/2.5/3.6/4.9/6.2/7.3/9.1	5200	2.5	3.6	4.9	6.2	7.3	9.1	70
2DP(M)DAA4000/3.2/4.5/6.3/7.7	4000	3.2	4.5	6.3	7.7	2DP(M)DAA6000/2.2/3.2/4.3/5.4/6.3/7.9	6000	2.2	3.2	4.3	5.4	6.3	7.9	75
2DP(M)DAA4800/2.8/4.0/5.6/6.8	4800	2.8	4.0	5.6	6.8	2DP(M)DAA7000/1.9/2.8/3.8/4.8/5.6/7.0	7000	1.9	2.8	3.8	4.8	5.6	7.0	80
2DP(M)DAA5400/2.5/3.5/4.9/6.0	5400	2.5	3.5	4.9	6.0	2DP(M)DAA8000/1.7/2.5/3.4/4.2/4.9/6.2	8000	1.7	2.5	3.4	4.2	4.9	6.2	85
2DP(M)DAA6000/2.2/3.1/4.4/5.3	6000	2.2	3.1	4.4	5.3	2DP(M)DAA9000/1.5/2.2/3.0/3.8/4.4/5.5	9000	1.5	2.2	3.0	3.8	4.4	5.5	90
2DP(M)DAA6800/1.8/2.7/3.7/4.6	6800	1.8	2.7	3.7	4.6	2DP(M)DAA10000/1.2/1.8/2.5/3.1/3.6/4.9	10000	1.2	1.8	2.5	3.1	3.6	4.9	95
2DP(M)DAA7600/1.6/2.4/3.4/4.2	7600	1.6	2.4	3.4	4.2	2DP(M)DAA11200/1.1/1.6/2.3/2.8/3.3/4.5	11200	1.1	1.6	2.3	2.8	3.3	4.5	100
2DP(M)DAA8400/1.5/2.2/3.0/3.8	8400	1.5	2.2	3.0	3.8	2DP(M)DAA12400/1.0/1.5/2.0/2.5/3.0/4.0	12400	1.0	1.5	2.0	2.5	3.0	4.0	105
2DP(M)DAA9200/1.3/2.0/2.8/3.4	9200	1.3	2.0	2.8	3.4	2DP(M)DAA13600/0.9/1.3/1.9/2.3/2.7/3.7	13600	0.9	1.3	1.9	2.3	2.7	3.7	110
2DP(M)DAA10200/1.2/1.8/2.5/3.2	10200	1.2	1.8	2.5	3.2	2DP(M)DAA15000/0.8/1.2/1.7/2.1/2.5/3.4	15000	0.8	1.2	1.7	2.1	2.5	3.4	115
2DP(M)DAA11200/1.1/1.7/2.3/2.9	11200	1.1	1.7	2.3	2.9	2DP(M)DAA16400/0.8/1.1/1.6/1.9/2.3/3.1	16400	0.8	1.1	1.6	1.9	2.3	3.1	120
2DP(M)DAA12200/1.0/1.6/2.2/2.7	12200	1.0	1.6	2.2	2.7	2DP(M)DAA17800/0.7/1.0/1.4/1.8/2.1/2.9	17800	0.7	1.0	1.4	1.8	2.1	2.9	125
2DP(M)DAA13200/1.0/1.4/2.0/2.5	13200	1.0	1.4	2.0	2.5	2DP(M)DAA19400/0.6/1.0/1.3/1.7/1.9/2.6	19400	0.6	1.0	1.3	1.7	1.9	2.6	130
2DP(M)DAA14200/0.9/1.3/1.8/2.3	14200	0.9	1.3	1.8	2.3	2DP(M)DAA20800/0.6/0.9/1.2/1.5/1.8/2.4	20800	0.6	0.9	1.2	1.5	1.8	2.4	135
2DP(M)DAA15400/0.8/1.2/1.7/2.1	15400	0.8	1.2	1.7	2.1	2DP(M)DAA22400/0.6/0.8/1.1/1.4/1.7/2.3	22400	0.6	0.8	1.1	1.4	1.7	2.3	140
2DP(M)DAA16400/0.8/1.2/1.6/2.0	16400	0.8	1.2	1.6	2.0	2DP(M)DAA24200/0.5/0.8/1.1/1.3/1.6/2.1	24200	0.5	0.8	1.1	1.3	1.6	2.1	145

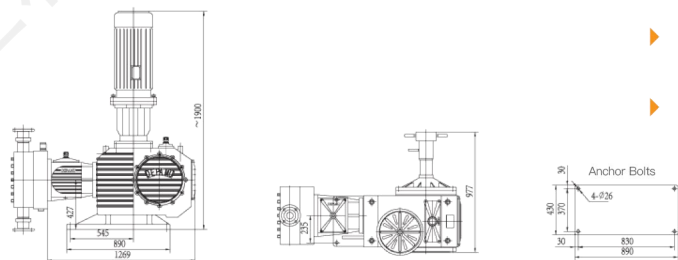
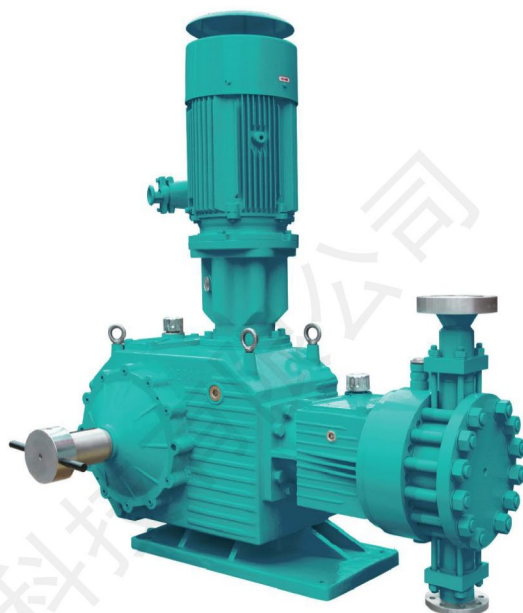
3DP (M) DAA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=12)	Flow (L/h)	Motor Power				Model (i=8,25)	Flow (L/h)	Motor Power					Plunger Diameter (mm)
		15kW/22kW/30kW						15kW/22kW/30kW/37kW/45kW					
		Discharge Pressure MPa						Discharge Pressure MPa					
3DP(M)DAA360/40.8/61.1/71.3	360	40.8	61.1	71.3	3DP(M)DAA600/28.5/40.8/55.0/69.3	600	28.5	40.8	55.0	69.3	25		
3DP(M)DAA660/28.3/42.5/49.5	660	28.3	42.5	49.5	3DP(M)DAA1050/19.8/28.3/38.2/48.1	1050	19.8	28.3	38.2	48.1	30		
3DP(M)DAA1020/20.8/31.2/36.4	1020	20.8	31.2	36.4	3DP(M)DAA1590/14.6/20.8/28.1/35.4	1590	14.6	20.8	28.1	35.4	35		
3DP(M)DAA1455/15.9/23.9/27.9	1455	15.9	23.9	27.9	3DP(M)DAA2220/11.1/15.9/21.5/27.1	2220	11.1	15.9	21.5	27.1	40		
3DP(M)DAA1950/12.6/18.9/22.0	1950	12.6	18.9	22.0	3DP(M)DAA2970/8.8/12.6/17.0/21.4	2970	8.8	12.6	17.0	21.4	45		
3DP(M)DAA2520/10.2/15.3/17.8	2520	10.2	15.3	17.8	3DP(M)DAA3600/7.1/10.2/13.8/17.3	3600	7.1	10.2	13.8	17.3	50		
3DP(M)DAA3000/8.4/12.6/14.7	3000	8.4	12.6	14.7	3DP(M)DAA4500/5.9/8.4/11.4/14.3	4500	5.9	8.4	11.4	14.3	55		
3DP(M)DAA3600/7.1/10.6/12.4	3600	7.1	10.6	12.4	3DP(M)DAA5700/5.0/7.1/9.6/12.0	5700	5.0	7.1	9.6	12.0	60		
3DP(M)DAA4500/6.0/9.0/10.6	4500	6.0	9.0	10.6	3DP(M)DAA6600/4.2/6.0/8.1/10.3	6600	4.2	6.0	8.1	10.3	65		
3DP(M)DAA5400/5.2/7.8/9.1	5400	5.2	7.8	9.1	3DP(M)DAA7800/3.6/5.2/7.0/8.8	7800	3.6	5.2	7.0	8.8	70		
3DP(M)DAA6000/4.5/6.8/7.9	6000	4.5	6.8	7.9	3DP(M)DAA9000/3.2/4.5/6.1/7.7	9000	3.2	4.5	6.1	7.7	75		
3DP(M)DAA7200/4.0/6.0/7.0	7200	4.0	6.0	7.0	3DP(M)DAA10500/2.8/4.0/5.4/6.8	10500	2.8	4.0	5.4	6.8	80		
3DP(M)DAA8100/3.5/5.3/6.2	8100	3.5	5.3	6.2	3DP(M)DAA12000/2.5/3.5/4.8/6.0	12000	2.5	3.5	4.8	6.0	85		
3DP(M)DAA9000/3.1/4.7/5.5	9000	3.1	4.7	5.5	3DP(M)DAA13500/2.2/3.1/4.2/5.3	13500	2.2	3.1	4.2	5.3	90		
3DP(M)DAA10200/2.7/3.9/4.9	10200	2.7	3.9	4.9	3DP(M)DAA15000/1.8/2.6/3.4/4.3	15000	1.8	2.6	3.4	4.3	95		
3DP(M)DAA11400/2.4/3.5/4.5	11400	2.4	3.5	4.5	3DP(M)DAA16800/1.6/2.3/3.1/3.9	16800	1.6	2.3	3.1	3.9	100		
3DP(M)DAA12600/2.2/3.2/4.0	12600	2.2	3.2	4.0	3DP(M)DAA18600/1.5/2.1/2.8/3.5	18600	1.5	2.1	2.8	3.5	105		
3DP(M)DAA13800/2.0/2.9/3.7	13800	2.0	2.9	3.7	3DP(M)DAA20400/1.3/1.9/2.6/3.2	20400	1.3	1.9	2.6	3.2	110		
3DP(M)DAA15300/1.8/2.6/3.4	15300	1.8	2.6	3.4	3DP(M)DAA22500/1.2/1.8/2.3/2.9	22500	1.2	1.8	2.3	2.9	115		
3DP(M)DAA16800/1.7/2.4/3.1	16800	1.7	2.4	3.1	3DP(M)DAA24600/1.1/1.6/2.2/2.7	24600	1.1	1.6	2.2	2.7	120		
3DP(M)DAA18300/1.5/2.2/2.9	18300	1.5	2.2	2.9	3DP(M)DAA26700/1.0/1.5/2.0/2.5	26700	1.0	1.5	2.0	2.5	125		
3DP(M)DAA19800/1.4/2.1/2.6	19800	1.4	2.1	2.6	3DP(M)DAA29100/1.0/1.4/1.8/2.3	29100	1.0	1.4	1.8	2.3	130		
3DP(M)DAA21300/1.3/1.9/2.4	21300	1.3	1.9	2.4	3DP(M)DAA31200/0.9/1.3/1.7/2.1	31200	0.9	1.3	1.7	2.1	135		
3DP(M)DAA23100/1.2/1.8/2.3	23100	1.2	1.8	2.3	3DP(M)DAA33600/0.8/1.2/1.6/2.0	33600	0.8	1.2	1.6	2.0	140		
3DP(M)DAA24600/1.1/1.7/2.1	24600	1.1	1.7	2.1	3DP(M)DAA36300/0.8/1.1/1.5/1.8	36300	0.8	1.1	1.5	1.8	145		
3DP(M)DAA26400/1.1/1.5/2.0	26400	1.1	1.5	2.0	3DP(M)DAA38700/0.7/1.0/1.4/1.7	38700	0.7	1.0	1.4	1.7	150		

DP (M) TA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=12)	Flow (L/h)	Motor Power		Model (i=9)	Flow (L/h)	Motor Power			Plunger Diameter (mm)
		22kW/30kW				22kW/30kW/37kW			
		Discharge Pressure MPa				Discharge Pressure MPa			
DP(M)TA200/53.8/72.2	200	53.8	72.2	DP(M)TA300/38.2/53.8/66.5	300	38.2	53.8	66.5	30
DP(M)TA300/39.5/53.0	300	39.5	53.0	DP(M)TA500/28.1/39.8/48.9	500	28.1	39.8	48.9	35
DP(M)TA500/30.3/40.6	500	30.3	40.6	DP(M)TA690/21.5/30.3/37.4	690	21.5	30.3	37.4	40
DP(M)TA690/23.9/32.1	690	23.9	32.1	DP(M)TA940/17.0/23.9/29.6	940	17.0	23.9	29.6	45
DP(M)TA900/19.4/26.0	900	19.4	26.0	DP(M)TA1200/13.8/19.4/23.9	1200	13.8	19.4	23.9	50
DP(M)TA1100/16.0/21.5	1100	16.0	21.5	DP(M)TA1500/11.4/16.0/19.8	1500	11.4	16.0	19.8	55
DP(M)TA1400/13.4/18.0	1400	13.4	18.0	DP(M)TA1900/9.6/13.4/16.6	1900	9.6	13.4	16.6	60
DP(M)TA1700/11.5/15.4	1700	11.5	15.4	DP(M)TA2300/8.1/11.5/14.2	2300	8.1	11.5	14.2	65
DP(M)TA2000/9.9/13.3	2000	9.9	13.3	DP(M)TA2700/7.0/9.9/12.2	2700	7.0	9.9	12.2	70
DP(M)TA2300/8.6/11.5	2300	8.6	11.5	DP(M)TA3100/6.1/8.6/10.6	3100	6.1	8.6	10.6	75
DP(M)TA2700/7.6/10.2	2700	7.6	10.2	DP(M)TA3600/5.4/7.6/9.4	3600	5.4	7.6	9.4	80
DP(M)TA3000/6.7/9.0	3000	6.7	9.0	DP(M)TA4100/4.8/6.7/8.3	4100	4.8	6.7	8.3	85
DP(M)TA3500/6.0/8.0	3500	6.0	8.0	DP(M)TA4700/4.2/6.0/7.4	4700	4.2	6.0	7.4	90
DP(M)TA3900/5.4/7.2	3900	5.4	7.2	DP(M)TA5300/3.8/5.4/6.6	5300	3.8	5.4	6.6	95
DP(M)TA4300/4.8/6.5	4300	4.8	6.5	DP(M)TA5900/3.4/4.8/6.0	5900	3.4	4.8	6.0	100
DP(M)TA4800/4.4/5.9	4800	4.4	5.9	DP(M)TA6500/3.1/4.4/5.4	6500	3.1	4.4	5.4	105
DP(M)TA5300/4.0/5.4	5300	4.0	5.4	DP(M)TA7200/2.8/4.0/4.9	7200	2.8	4.0	4.9	110
DP(M)TA5800/3.7/4.9	5800	3.7	4.9	DP(M)TA7900/2.6/3.7/4.5	7900	2.6	3.7	4.5	115
DP(M)TA6400/3.4/4.5	6400	3.4	4.5	DP(M)TA8600/2.4/3.4/4.2	8600	2.4	3.4	4.2	120
DP(M)TA7000/3.1/4.2	7000	3.1	4.2	DP(M)TA9400/2.2/3.1/3.8	9400	2.2	3.1	3.8	125
DP(M)TA7600/2.9/3.8	7600	2.9	3.8	DP(M)TA10200/2.0/2.9/3.5	10200	2.0	2.9	3.5	130
DP(M)TA8200/2.7/3.6	8200	2.7	3.6	DP(M)TA11000/1.9/2.7/3.3	11000	1.9	2.7	3.3	135
DP(M)TA8800/2.5/3.3	8800	2.5	3.3	DP(M)TA11900/1.8/2.5/3.1	11900	1.8	2.5	3.1	140

DP(M)TTA



- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=10.25)	Flow (L/h)	Motor Power			Model (i=8.2)	Flow (L/h)	Motor Power			Plunger Diameter (mm)
		22kW/30kW/37kW					30kW/37kW/45kW			
		Discharge Pressure MPa					Discharge Pressure MPa			
DP(M)TTA 282/56.6/70.7/84.9	282	56.6	70.7	84.9	DP(M)TTA 371/56.6/70.7/84.9	371	56.6	70.7	84.9	30
DP(M)TTA 469/41.6/52.0/62.4	469	41.6	52.0	62.4	DP(M)TTA 618/41.6/52.0/62.4	618	41.6	52.0	62.4	35
DP(M)TTA 648/31.8/39.8/47.7	648	31.8	39.8	47.7	DP(M)TTA 852/31.8/39.8/47.7	852	31.8	39.8	47.7	40
DP(M)TTA 882/25.2/31.4/37.7	882	25.2	31.4	37.7	DP(M)TTA 1161/25.2/31.4/37.7	1161	25.2	31.4	37.7	45
DP(M)TTA 1126/20.4/25.5/30.6	1126	20.4	25.5	30.6	DP(M)TTA 1483/20.4/25.5/30.6	1483	20.4	25.5	30.6	50
DP(M)TTA 1408/16.8/21.0/25.3	1408	16.8	21.0	25.3	DP(M)TTA 1853/16.8/21.0/25.3	1853	16.8	21.0	25.3	55
DP(M)TTA 1783/14.1/17.7/21.2	1783	14.1	17.7	21.2	DP(M)TTA 2347/14.1/17.7/21.2	2347	14.1	17.7	21.2	60
DP(M)TTA 2159/12.1/15.1/18.1	2159	12.1	15.1	18.1	DP(M)TTA 2841/12.1/15.1/18.1	2841	12.1	15.1	18.1	65
DP(M)TTA 2534/10.4/13.0/15.6	2534	10.4	13.0	15.6	DP(M)TTA 3336/10.4/13.0/15.6	3336	10.4	13.0	15.6	70
DP(M)TTA 2910/9.1/11.3/13.6	2910	9.1	11.3	13.6	DP(M)TTA 3830/9.1/11.3/13.6	3830	9.1	11.3	13.6	75
DP(M)TTA 3379/8.0/9.9/11.9	3379	8.0	9.9	11.9	DP(M)TTA 4448/8.0/9.9/11.9	4448	8.0	9.9	11.9	80
DP(M)TTA 3848/7.0/8.8/10.6	3848	7.0	8.8	10.6	DP(M)TTA 5065/7.0/8.8/10.6	5065	7.0	8.8	10.6	85
DP(M)TTA 4318/6.3/7.9/9.4	4318	6.3	7.9	9.4	DP(M)TTA 5683/6.3/7.9/9.4	5683	6.3	7.9	9.4	90
DP(M)TTA 4834/5.6/7.1/8.5	4834	5.6	7.1	8.5	DP(M)TTA 6362/5.6/7.1/8.5	6362	5.6	7.1	8.5	95
DP(M)TTA 5350/5.1/6.4/7.6	5350	5.1	6.4	7.6	DP(M)TTA 7042/5.1/6.4/7.6	7042	5.1	6.4	7.6	100
DP(M)TTA 6477/4.2/5.3/6.3	6477	4.2	5.3	6.3	DP(M)TTA 8524/4.2/5.3/6.3	8524	4.2	5.3	6.3	110
DP(M)TTA 7697/3.5/4.4/5.3	7697	3.5	4.4	5.3	DP(M)TTA 10131/3.5/4.4/5.3	10131	3.5	4.4	5.3	120
DP(M)TTA 9011/3.0/3.8/4.5	9011	3.0	3.8	4.5	DP(M)TTA 11860/3.0/3.8/4.5	11860	3.0	3.8	4.5	130
DP(M)TTA 10513/2.6/3.2/3.9	10513	2.6	3.2	3.9	DP(M)TTA 13837/2.6/3.2/3.9	13837	2.6	3.2	3.9	140

3DP(M)TTA



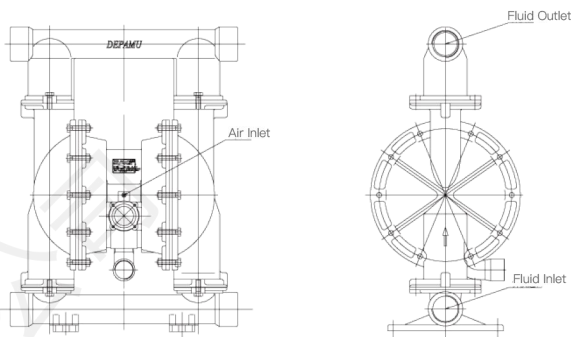
- ▶ A pump head can be hydraulic diaphragm type, plunge type or piston type (refer to P19–22 for details about special working conditions);
- ▶ Vertical motor installation ensures safety without leakage;
- ▶ A hydraulic diaphragm pump contains internal safety valve and compensation valve realizing automatic air discharge and oil replenishment with outstanding and reliable performance;
- ▶ Integrated worm gear, used as a variable speed transmission mechanism, features low noise and high efficiency;
- ▶ Adoption of a patented integrated sleeve adjustable eccentric transmission mechanism, simple and reliable, and stroke can be steplessly adjusted in the range of 0%–100%;
- ▶ Inlet and outlet high-precision check valves can effectively guarantee metering accuracy and fluidity;
- ▶ High performance plunger, special imported packing, diaphragm and sealing components have a long service life and excellent sealing performance;
- ▶ Oil-immersion lubrication ensures reliable use of the transmission mechanism for a long term;
- ▶ It can be used to transport a same fluid to reduce pulses or transport different fluids as a proportioning pump with independent flow adjustment of either pump head;
- ▶ The capacity range is 10%–100% and the metering accuracy is $\pm 0.5\%$;
- ▶ Capacity control modes are diversified, including manual, electrical, pneumatic and variable frequency control.

Model (i=10.25)	Flow (L/h)	Motor Power			Model (i=8.2)	Flow (L/h)	Motor Power			Plunger Diameter (mm)
		55kW/75kW/90kW					75kW/90kW/110kW			
		Discharge Pressure MPa					Discharge Pressure MPa			
3DP(M)TTA 845/56.6/70.7/84.9	845	56.6	70.7	84.9	3DP(M)TTA 1112/56.6/70.7/84.9	1112	56.6	70.7	84.9	30
3DP(M)TTA 1408/41.6/52.0/62.4	1408	41.6	52.0	62.4	3DP(M)TTA 1853/41.6/52.0/62.4	1853	41.6	52.0	62.4	35
3DP(M)TTA 1943/31.8/39.8/47.7	1943	31.8	39.8	47.7	3DP(M)TTA 2557/31.8/39.8/47.7	2557	31.8	39.8	47.7	40
3DP(M)TTA 2647/25.2/31.4/37.7	2647	25.2	31.4	37.7	3DP(M)TTA 3484/25.2/31.4/37.7	3484	25.2	31.4	37.7	45
3DP(M)TTA 3379/20.4/25.5/30.6	3379	20.4	25.5	30.6	3DP(M)TTA 4448/20.4/25.5/30.6	4448	20.4	25.5	30.6	50
3DP(M)TTA 4224/16.8/21.0/25.3	4224	16.8	21.0	25.3	3DP(M)TTA 5559/16.8/21.0/25.3	5559	16.8	21.0	25.3	55
3DP(M)TTA 5350/14.1/17.7/21.2	5350	14.1	17.7	21.2	3DP(M)TTA 7042/14.1/17.7/21.2	7042	14.1	17.7	21.2	60
3DP(M)TTA 6477/12.1/15.1/18.1	6477	12.1	15.1	18.1	3DP(M)TTA 8524/12.1/15.1/18.1	8524	12.1	15.1	18.1	65
3DP(M)TTA 7603/10.4/13.0/15.6	7603	10.4	13.0	15.6	3DP(M)TTA 10007/10.4/13.0/15.6	10007	10.4	13.0	15.6	70
3DP(M)TTA 8729/9.1/11.3/13.6	8729	9.1	11.3	13.6	3DP(M)TTA 11489/9.1/11.3/13.6	11489	9.1	11.3	13.6	75
3DP(M)TTA 10137/8.0/9.9/11.9	10137	8.0	9.9	11.9	3DP(M)TTA 13343/8.0/9.9/11.9	13343	8.0	9.9	11.9	80
3DP(M)TTA 11545/7.0/8.8/10.6	11545	7.0	8.8	10.6	3DP(M)TTA 15196/7.0/8.8/10.6	15196	7.0	8.8	10.6	85
3DP(M)TTA 12953/6.3/7.9/9.4	12953	6.3	7.9	9.4	3DP(M)TTA 17049/6.3/7.9/9.4	17049	6.3	7.9	9.4	90
3DP(M)TTA 14502/5.6/7.1/8.5	14502	5.6	7.1	8.5	3DP(M)TTA 19087/5.6/7.1/8.5	19087	5.6	7.1	8.5	95
3DP(M)TTA 16051/5.1/6.4/7.6	16051	5.1	6.4	7.6	3DP(M)TTA 21126/5.1/6.4/7.6	21126	5.1	6.4	7.6	100
3DP(M)TTA 19430/4.2/5.3/6.3	19430	4.2	5.3	6.3	3DP(M)TTA 25573/4.2/5.3/6.3	25573	4.2	5.3	6.3	110
3DP(M)TTA 23091/3.5/4.4/5.3	23091	3.5	4.4	5.3	3DP(M)TTA 30392/3.5/4.4/5.3	30392	3.5	4.4	5.3	120
3DP(M)TTA 27033/3.0/3.8/4.5	27033	3.0	3.8	4.5	3DP(M)TTA 35580/3.0/3.8/4.5	35580	3.0	3.8	4.5	130
3DP(M)TTA 31539/2.6/3.2/3.9	31539	2.6	3.2	3.9	3DP(M)TTA 41510/2.6/3.2/3.9	41510	2.6	3.2	3.9	140

Pneumatic Diaphragm Pump

Introduction

- ▶ Under adoption of the most advanced European technologies, pneumatic pumps can replace all kinds of imported pneumatic diaphragm pumps.
- ▶ Water irrigation or diversion is not needed, the suction head lift reaches 7 m, the head lift reaches 50 m and the outlet pressure is 6 kgf/cm²;
- ▶ Under smooth flow and good passing performance, the maximum allowable diameter of passable particles is 10 mm;
- ▶ Slurry or sundry pumping brings little wearing to a pump;
- ▶ Head lift and flow can be steplessly adjusted via air valve opening;
- ▶ A pump can work while immersed in fluids;
- ▶ Liquids relatively viscous can be transported as well (with a viscosity below 10,000 cP);
- ▶ Oil lubrication is not required for a pump with no influence on it even when idling.
- ▶ Different materials can be chosen as per different fluids and anti-corrosion structure can avoid leakage.

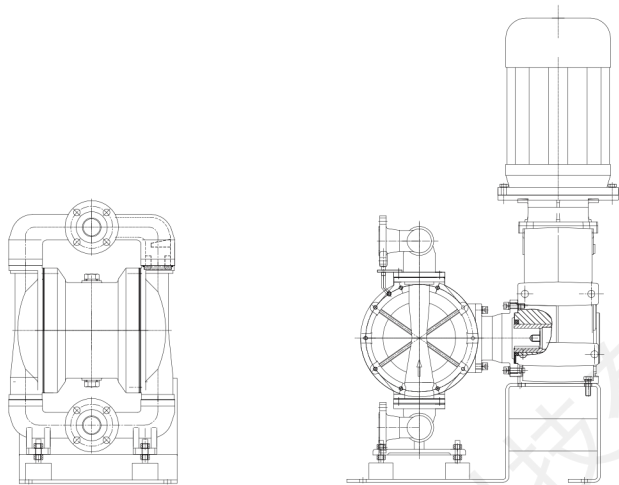
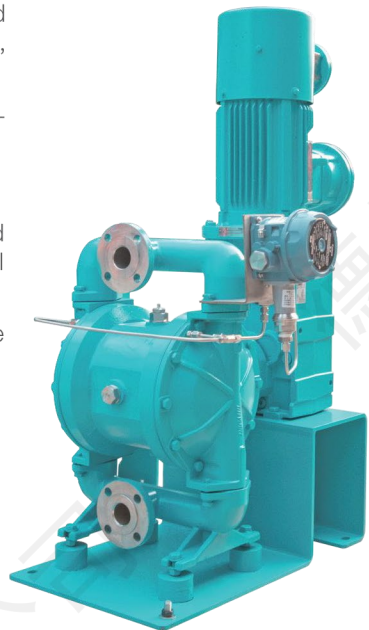


Model	Flow (m ³ /h)	Outlet Pressure (MPa)	Maximum Siphon (Dry Suction) (m)	Rated Air Supply Pressure (MPa)	Max Air Consumption (m ³ /min)
DPQ-10	1.59	0.6	3.1	0.7	0.54
DPQ-15/20	3.42	0.6	4.5	0.7	0.6
DPQ-25	9	0.6	5.0	0.7	1.35
DPQ-40	20.4	0.6	5.0	0.7	2.4
DPQ-50	34.2	0.6	5.0	0.7	4.2
DPQ-80	61.32	0.6	5.0	0.7	5.4

Electric Diaphragm Pump

Introduction

- ▶ An electric diaphragm pump, a type in a special structure of positive displacement pumps, is composed of mechanical drive and diaphragm pump head.
- ▶ PTFE diaphragms through special compression moulding feature good mechanical performance and resistance to corrosion by strong acids, bases, acids and solvents.
- ▶ Check valve assembly resistive to bonding and precipitation allows fluid transport of high viscosity and with particles generating little vibration or noise.
- ▶ Suction of high-temp liquids below 150°C.
- ▶ Enhanced-strength four-diaphragm assembly with highly sensitive and reliable pressure conduction or on-off alarm can realize local display, signal output and pump safety running monitoring all the time.
- ▶ Over-pressure protection avoids pump stop in case of accidental pipeline blocking or fluid discharge under zero stroke length.



Model	Flow (m ³ /h)	Outlet Pressure (MPa)	Suction Head (m)	Motor Power (kw)	Motor Speed (r/min)	Inlet and Outlet Size (Inch)
DPDD-25	3.5	0.6	3.0	1.5	1400	1.0
DPDD-40	6.0	0.6	3.0	2.2	1420	1 1/2
DPDD-50	10.5	0.6	3.0	3.0	1420	2.0
DPDD-80	22.0	0.7	3.0	5.5	1440	3.0

Accessories of Metering Pumps



Pulsation Damper

Function: A pulsation damper can instantly absorb pulses to achieve a stable flow rate and pressure, and can smooth 90~95% pulsation.

Pulsation Damper Types: Bladder type, diaphragm type, gas-liquid contact type and bellows type.

Bladder Type Casing Material: Stainless steel and carbon steel; bladder material: nitrile butadiene rubber (NBR), isobutylene isoprene rubber (IIR), fluororubber, ethylene propylene diene monomer (EPDM), neoprene, etc.

Diaphragm Type Casing Material: Stainless steel, carbon steel, PVC and PEFE lining; diaphragm material: PTFE+rubber (double-layer).

Gas-liquid Contact Type Material: Stainless steel and carbon steel.

Bellows Type Material: Stainless steel.



Calibration Pot and Calibration Pot for Methanol Injection Service

A calibration pot is used for accurate calibration of metering pump capacity.

Specifications: 100ml, 500ml, 1000ml, 1500ml, 2000ml, 4000ml.

Material of Graduated Tube: PVC and organic glass.



Back Pressure Valve

Function: A type of device raising pipeline pressure. When the pressure at the injection point is lower than the inlet pressure of the metering pump, a back-pressure valve must be installed at the metering pump outlet to reduce overflow transport caused by siphonage and gravity flow, thus securing no influence on metering pump accuracy.

Material: PVC, PVDF, 304 or 316 stainless steel, etc.



Safety Valve

Function: A type of safety protection device against pressure overload, normally closed, and automatically open when the rising pressure of fluids in the equipment or the pipes exceeds the specified value, avoiding it beyond the specified pressure value through fluid discharge from the system.

Material: PVC, PVDF, 304 or 316 stainless steel.



Filter

Function: Installed on the inlet pipe of a metering pump, a filter is used for filtration of impurities and large particles, thus ensuring normal operation of the metering pump. Common filters are Y-type and basket-type filters.

Material of a Y-type Filter: Stainless steel, carbon steel, PVC, PP, etc.

Material of a Basket-type Filter: Stainless steel, PVC, PP, etc.



Stop Valve

The opening and closing member of a stop valve is a plug-type valve flap with a horizontal or conical sealing surface in rectilinear motion along the fluid center line. And a stop valve features a simple structure, a short working stroke, opening and closing in a short time, good tightness, low friction on the sealing surface and a relatively long service life.



Ball Valve

A ball valve has a sphere with a circular channel as its opening and closing member, which rotates with the valve stem to realize valve opening and closing. A ball valve mainly features an impact structure, easy operation and repairing. It is applicable not only to general working media like water, solvent, acid, natural gas, etc. but also media with harsh operation conditions like oxygen (O₂), hydrogen peroxide (H₂O₂), methane (CH₄), ethylene (C₂H₄), etc.



Non-return Valve

A non-return valve, a type of automatic valve, realizes automatic opening and closing of the valve flap with the force of fluid flow, avoiding back-flow. According to structure, non-return valves can be divided into lift type, swing type, butterfly type, pipeline type, slow-close type and diaphragm type, and are applicable to pipelines requiring no media back-flow.



Bearing

NSK (Japan)
SKF (Sweden)



Oil Seal

NOK (Japan)



Diaphragm

RET



Motor

Siemens, ABB, Nanyang, Jiamusi Explosion-proof



Sealing

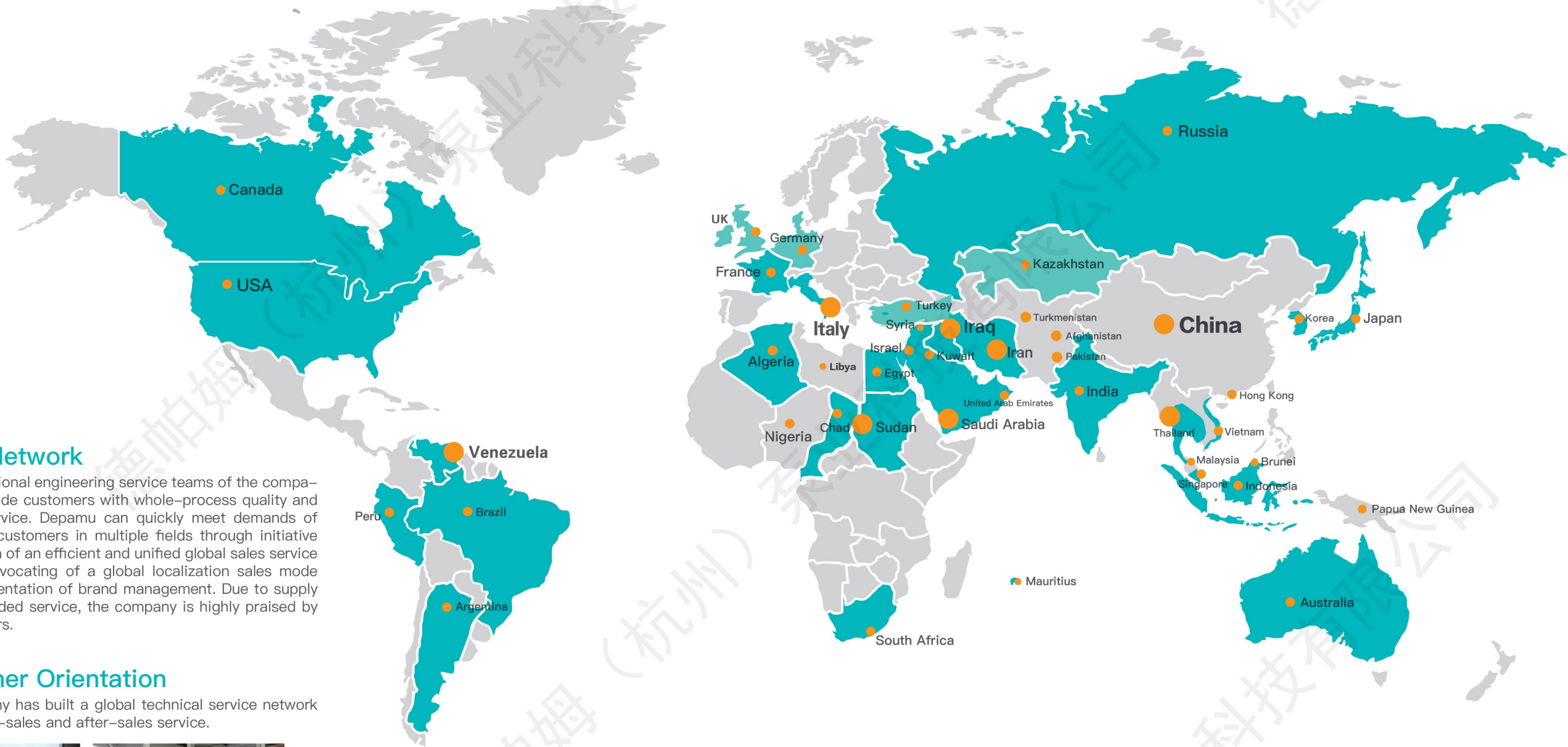


Valve Ball



Plunger

► Global Service System



► Sales Network

The professional engineering service teams of the company can provide customers with whole-process quality and efficient service. Depamu can quickly meet demands of multi-level customers in multiple fields through initiative construction of an efficient and unified global sales service network, advocating of a global localization sales mode and implementation of brand management. Due to supply of value-added service, the company is highly praised by its customers.

► Customer Orientation

The company has built a global technical service network offering pre-sales and after-sales service.



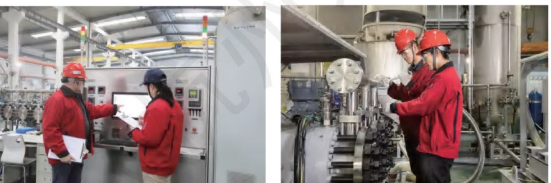
► Integrated Service

- Vibration Analysis
- Medium Assessment
- Site Commissioning
- System Testing
- Service and Repairing Contract
- Global Service
- Diagnosis of Change in Operation Conditions
- Extension and Modification of Running Pump and System



► Extensible System Solution

- Pump Instrumentation
- VFD Capacity Adjustment
- System-oriented Operation Interface
- Electronic Control of Online and Offline System Checkout



► Consulting and Engineering with Special Requirements

Depamu products are widely applied all over the world, which brings lots of experience where the company can learn and benefit. As a supplier of solutions and systems for liquid transportation, metering and mixed application, we can provide personalized solutions from the smallest independent unit to the biggest multi-link pump installation; at the same time, we can provide process engineering consulting for complex processes as well as solutions meeting the needs of special processes.

- Fluid Evaluation
- Independent Design
- Cost Accounting
- Commissioning and Service
- Seminars and Site Training