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Product Selection

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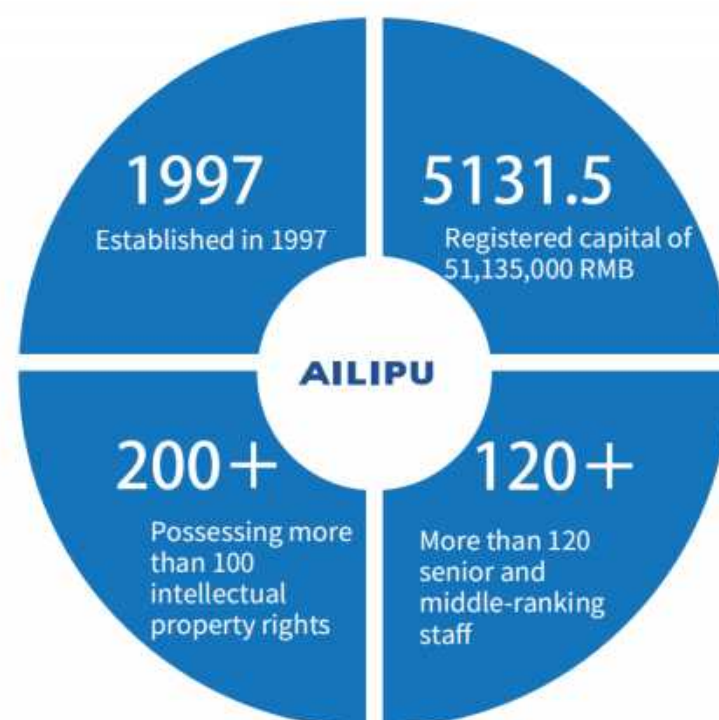


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As part of the continuous development process of the product, Philips has the right to modify and change performance parameters without prior notice. The published data may vary. Please visit our official website www.ailipu.com to obtain the latest version of information



Zhejiang Ailipu Technology Co., Ltd. has been engaged in fluid dosing and control industry for more than 20 years, and it's an expert specializing in metering pumps, process diaphragm pumps and pump-based fluid dosing systems in China.



Long-term strategic cooperation for localization of several subsidiaries of CNNC

Qualifications & Certifications:

Qualified suppliers to CNNC

Governing Member of China Nuclear Energy Industry Association

Nuclear Energy Industry Association Qualified Supplier

Sinopec ePac A+

PetroChina Grade A Supplier

CNOOC Tier 1 network member units

4A supplier to China Nuclear Power Engineering Co.Ltd

China Classification Society Certification: INTEGRATION OF INFORMATIONIZATION AND INDUSTRIALIZATION MANAGEMENT SYSTEM CERTIFICATE

Certification of safety mark for mine products

API675 certification

Made in Zhejiang: "Defined Quality" Brand

Made in Zhejiang Excellence Certification

Production License of Special Equipment: Design Organization for Pressure Piping

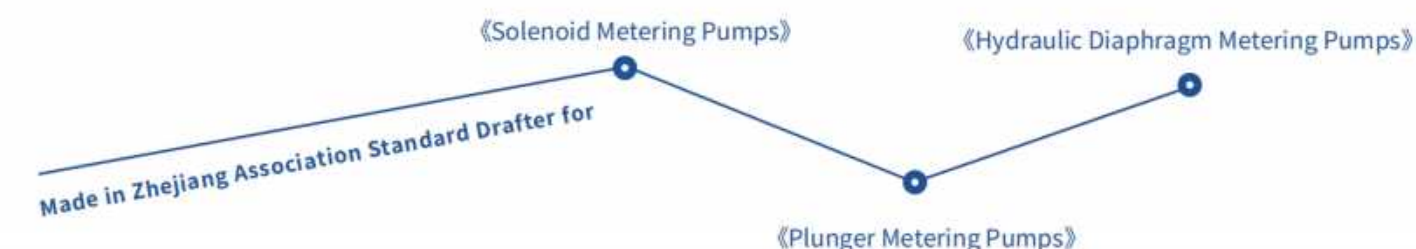
Production License of Special Equipment: Design Organization for Pressure Vessel

Qualification for Professional Contracting of Electrical and Mechanical Installation Works

ISO Certification

Integration Informationization and Industrialization Management System Certificate

Intellectual Property Management System Certificate



Provincial-level Enterprise R&D Centre

Academician Workstation

Provincial-level Enterprise Research Institute

Provincial-level Doctoral Innovation Centre

National First Set Product

National "Little Giant" Enterprise

High-tech Enterprise

Undertook the localization of critical equipment for national key projects such as Sichuan Gas Transmission project, deep-sea oil and gas extraction and nuclear chemical "spent fuel" treatment

Metering Pumps Selection and Application Notes

Metering accuracy and flow calibration

According to GB/T 7782 "Metering Pumps" standard: "The flow metering accuracy of the pump under rated conditions and at the maximum relative stroke length should be not less than $\pm 1\%$ ". The flow metering accuracy of the pump is best used in a stroke range of 30% or more. When the use range required by the process is $\leq 10\%$, the adjustment method of stroke + frequency conversion can be used to solve the problem.

The flow characteristic curve on the factory test report is measured according to the normal temperature clear water test, the user retests according to the actual working conditions and re-calibrates the relationship curve between stroke and flow, in order to facilitate the accurate adjustment of flow during operation.

Mounting height of metering pump (centre of pump head to liquid level)

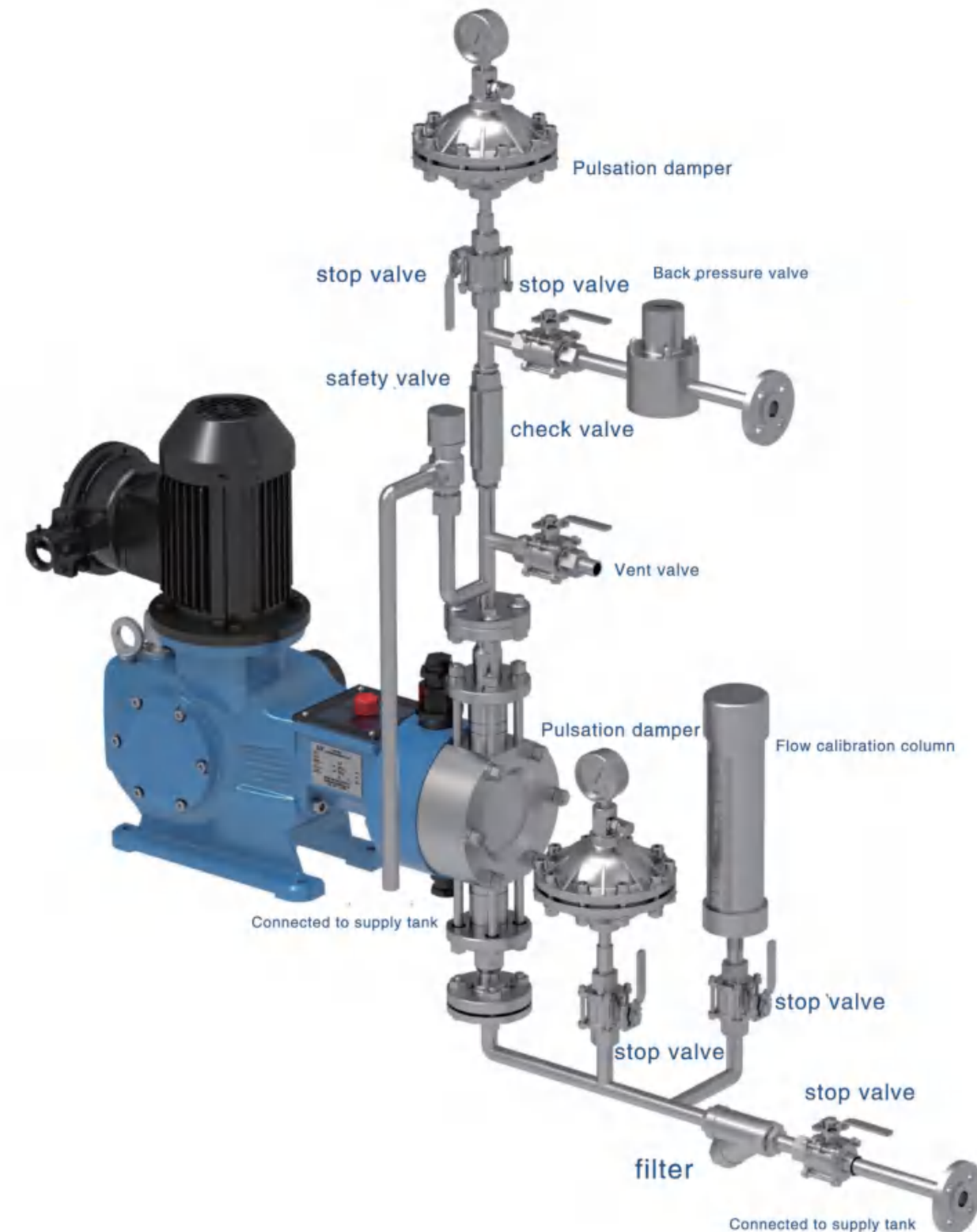
For the transport of normal temperature medium with physical properties similar to clear water, the installation height of the piston pump is ≤ 6 m, the installation height of the hydraulic diaphragm pump is ≤ 4.5 m and the installation height of the mechanical diaphragm pump is ≤ 3 m. For pumps with a flow rate of less than 50 L/H, it is recommended that the process be arranged in a inverted manner.

Keynotes of Metering Pump Piping System

1. Single-cylinder pump inlet pipe diameter should not be less than the inner diameter of the pump suction valve. Try to reduce the length of the pump inlet pipeline, reduce elbows, valves and other resistance parts, do not allow the "Ω" shaped arrangement of the upward bend, in order to avoid the storage of air.
2. To ensure the safety of the pump and piping system, a safety valve should be set in the outlet line.
3. In order to smooth out the flow pulsation of the metering pump, it is recommended to set a buffer at the pump outlet or use a multi-head metering pump to solve the problem. When the inlet flow ≥ 3000 L/h, it is recommended that the inlet side should also be equipped with a buffer.
4. When the difference between the inlet and outlet pressure is lower than 0.2Mpa, a back pressure valve should be installed on the outlet line.
5. In order to ensure the accuracy of flow measurement, the inlet pipeline should be installed with a filter.
6. To facilitate the calibration of the flow rate of the metering pump, a flow calibration tube can be installed in the inlet line.

11. When ordering metering pumps, the buyer should fill in the detailed operating conditions and site environmental conditions according to the "metering pump data sheet" to ensure the correct selection and as an annex to the contract, in order to ensure that the selected model meets the user's use requirements.
2. For transporting high temperature medium, or high viscosity medium with solid particles, it is recommended to consult our technical department.

Typical installation diagram of metering pump



Zhejiang Ailipu Technology Co., Ltd		Metering pump data sheet		User name			
				Project name			
Station number							
The name of the device		Model		Quantity			
Contract No		Form		No	Page	Total	Page
☐ Operating conditions (By the buyer's design department of the process and system professional proposed)							
1	Medium name			Operation Status		☐ Continuous	☐ Discontinuity
2	Concentration	%		Temperature		☐ Normal	☐ °C ; Highest °C ; Minimum °C
3	Features	☐ Corrosive ☐ Abrasive ☐ Toxic ☐ Flammable and explosive		Traffic		☐ Max	☐ l/h ; Minimum l/h ; Normal l/h
4	Solid content	wt% Wet base	Granularity	<mm	Outlet Pressure	☐ Rating	MPaG; Max MPaG
5	Entrance state	Density	kg/m³	Inlet Pressure		☐ Rating	MPaG; Max MPaG
		Viscosity	mPaS	Differential pressure		☐ Rating	MPaG; Max MPaG
		Vaporization pressure	MPaA	NPSHa			
☐ Site conditions (designed by the buyer, process department to provide)							
6	Installation location	☐ Indoor	☐ Outside	Atmospheric pressure		☐ Average	KPaA
7	☐ Ambient temperature	☐ Average °C ; Highest °C ; Minimum °C		Factory conditions		☐ High voltage	V ; Low voltage V
8	☐ Relative humidity	%		Hazard Zone Category			
☐ Pump performance (to be filled in by supplier pump factory quotation)							
9	☐ Rated flow rate	l/h		Traffic		Way	☐ Shift ☐ Adjust the itinerary
10	☐ Rated discharge pressure	MPaG		Adjustment		Method	☐ Electric ☐ Pneumatic ☐ Manual ☐ Frequency conversion ☐ CNC
11	☐ Plunger diameter	mm	Travel length	mm	☐ Measurement accuracy		%
12	☐ Number of cycles	mm	Range of regulation	%	☐ NPSHr		m
☐ Structure (to be filled in by the professional staff of the pump factory according to the requirements of the buyer)							
13	Hydraulic end	Type	☐ Plunger ☐ Hydraulic diaphragm ☐ Mechanical diaphragm		Type	☐ Direct connection ☐ Gearbox ☐ Belt drive	
		Valve type	☐ Single diaphragm ☐ Double diaphragm ☐ Single action ☐ Double action		Lubrication mode	☐ Crank connecting rod ☐ N-axis ☐ H-axis ☐ Eccentric wheel	
		Design pressure	MPaG		Coupling	☐ Elastic Claw type ☐ Elastic pin	
14	Take over	DN(mm)	PN(MPa)	Sealing face	Location	Position	☐ Stuffing box ☐ Cylinder block ☐ Transmission box
15	☐ Inlet			☐ Level ☐ Vertical		Cooling water	Medium ☐ Recycled Water ☐ TAP water
16	☐ Export			☐ Level ☐ Vertical		Traffic	m³/h Stress MPaG
17	Form of packing	☐ Square packing ☐ ▼-shaped ☐ U-shaped		Coupling		Hydraulic end	
18	☐ Packing Ring	Outside diameter	mm	Internal diameter	mm	Heat (Keep warm)	Medium ☐ Electricity ☐ Steam ☐ Hot water ☐ Heat transfer oil
		Materials	Quantity		Traffic	l/h	Stress MPaG
☐ Auxiliary equipment							
19	Entry buffer	Type	☐ Airbag type ☐ Gas-liquid contact type	☐ Safety valve	DN	mm	Set the pressure MPaG
		☐ Volume	L	△Stress	MPaG	☐ Back pressure valve	DN
20	Exit buffer	Type	☐ Airbag type ☐ Gas-liquid contact type	☐ Filter	DN	mm	
		☐ Volume	L	△Stress	MPaG	☐ Check valve	DN
21	Diaphragm rupture alarm	☐ Pressure gauge ☐ Pressure switch		Stroke Controller		☐ 5N.M ☐ 20N.M	
22	Frequency converter	☐ Model		Digital Controller		☐ JK-I ☐ JSK-II ☐ JSK-III	

Zhejiang Ailipu Technology Co., Ltd		Metering pump data sheet (continuation)		User name			
				Project name			
Standard specification GB/T7782 or API675							
The name of the device		Model		Quantity			
Contract no		Form		No	Page	Total	Page
☐ Materials							
24	Cylinder block	Plunger		Plunger bushing		Valve spring	
25	Seat	Diaphragm		Fillers		Gasket	
26	Valve (Ball)	Piston		Piston rings			
☐ Motor							
27	Production plant			☐ Explosion-proof rating			
28	Model			☐ Protection level			
29	Power supply	V ph Hz		☐ Insulation grade			
30	Rated power	kW	☐ Speed	r/min	☐ Special requirements ☐ Frequency conversion ☐ Outdoors ☐ Embalming		
31	Entry mode			☐ Cable ☐ Steel pipe wiring			
☐ Test ☐ Witness							
32	Mechanical running test	☐ Witness ☐ Not witness		Performance Test	Reproducibility accuracy		☐ Witness ☐ Not witness
33	Water pressure test	☐ Witness ☐ Not witness			Stability accuracy		☐ Witness ☐ Not witness
34	☐ Special requirements	Test pressure		MPaG	Linearity		☐ Witness ☐ Not witness
☐ Scope of supply							
35	☐ Pump			☐ Random spare parts		Buffer ☐ Inhalation; ☐ Discharge	
36	☐ Motor			☐ Special tools		☐ Lube	
37	☐ Flow calibration column			☐ Filter		☐ Control instruments	
38	☐ Monitoring instrument for diaphragm rupture			☐ Back pressure valve		☐ Stroke controller	
39	☐ Base			☐ Safety valve		☐ Digital controller	
40	☐ Anchor bolts			☐ Check valve		☐ Two years spare parts (with list)	
41	☐ Import and export matching flange			☐ Import and export gaskets			
☐ Factory information							
42	☐ Certificate			☐ Instruction manual			
☐ Weight							
43	Pump	kg	Base	kg	Total weight		kg
44	Motor	kg					
45 1. ☐ To be completed by the buyer ☐ To be completed by the manufacturer ☐ Both parties fill in the form together							
46 2. The unmarked parts shall be regarded as general requirements. According to GB/T7782 "Metering pump" technical requirements							

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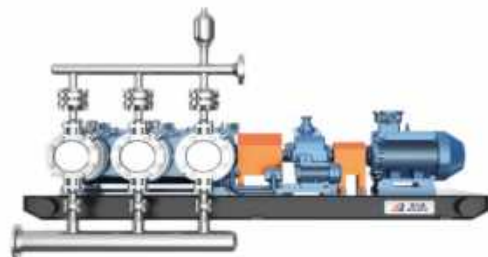
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Plunger metering pumps

Product Overview

The hydraulic end of the pump forms the working chamber with the aid of a plunger, and the volume of the working chamber changes periodically through the reciprocating movement of the plunger.

Function

- 1.The diameter of the plunger should not be too large, generally D=3-200mm.
- 2.The discharge pressure of the plunger pump is high, which is suitable for making high pressure pump (can meet 100MPa pressure delivery).
- 3.It can transport high viscosity media, and is not recommended transport corrosive slurries and dangerous chemicals.
- 4.The plunger is sealed with packing, so there will be leakage, and the sealing gap is required periodically adjustment. Packing and plunger are wearable parts of the pump..
- 5.High flow accuracy and great stability. In the range of 10%-100% of the stroke, the accuracy of measurement can reach±1% . Good flow stability when the pressure changes.High flow accuracy and good stability. In the range of 10%-100% of the stroke, the accuracy of measurement can reach ±1%. Good flow stability when the pressure changes.
- 6.Good suction performance and self-priming performance, suitable for dosing high viscosity media or inlet with negative pressure applications.
- 7.No safety relief device, and need to install safety valve in the pump outlet line.
- 8.Simple structure, easy maintenance, good cost-effectiveness.
- 9.The flow rate can be changed by adjusting the stroke length or changing the motor frequency; if equipped with a stroke controller or digital controller, it is convenient to achieve automatic adjustment or remote control.

Applications

The products are widely used in petrochemical, oil & gas, chemical,power, nuclear, mining, medicine, food and other fields, and are indispensable pump type for precise dosing in modern industry. Especially popular in the process of transporting various liquid media of high viscosity, high pressure, high temperature and extruding polystyrene (XPS) foam industry in the process of carbon dioxide, butane, Freon filling, etc.

J	Metering Pump	50	1	Rated Pressure Mpa	S	Pump Material S-304 L-316L C- HastelloyC H-20InAlloy T-Titanium Alloy Q-Carbon Steel	H Connection H-Union, weld Connection R-house connector F-Flange P-NPT Thread M-Metric Thread G-Taper Pipe Thread Q-Hard Pipe Socked T-Ferrule	K Flow Regulation S-Manual D-Auto Stroke Controller K-Digital Controller	B Motor B-Explosion Proof P-Variable Frequency BP-E explosion-Proof with Variable Frequency O-Standard	D Pump Head D-Electrical Heating T- Heating Jacket N-High Viscosity		

The motor stands on top of the gearbox to avoid leakage of lubricant and to improve transmission reliability.



High flow accuracy and great stability. In the range of 10%-100% of the stroke, the accuracy of measurement can reach $\pm 1\%$. The flow rate is stable when the pressure changes.

The product has good suction and self-priming properties and is suitable for transporting high viscosity medium or for applications with negative inlet pressure.

Flow rate adjustment mechanism: H-shaped sliding shaft adjustment mechanism, good linearity of adjustment. The flow rate can be changed by adjusting the stroke length or changing the motor frequency; if equipped with a stroke controller or digital controller, it is convenient to achieve automatic adjustment or remote control.

The sealing surface of the inlet and outlet valves is designed with tongue and groove surfaces for more reliable sealing.

Selection parameters

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
J1.6-0.25/40	0.25	40	5	7	45	0.55	Φ6 Cutting Sleeve Φ8 Cutting Sleeve	60
J1.6-0.25/20		20				0.37		
J1.6-0.3/40	0.3	40			58	0.55		
J1.6-0.3/20		20				0.37		
J1.6-0.5/40	0.5	40		12.5	45	0.55		
J1.6-0.5/20		20				0.37		
J1.6-0.63/40	0.63	40			58	0.55		
J1.6-0.63/20		20				0.37		
J1.6-0.75/40	0.75	40	6	12.5	45	0.55		
J1.6-0.75/20		20				0.37		
J1.6-1.0/40	1	40			58	0.55		
J1.6-1.0/20		20				0.37		
J1.6-1.5/32	1.5	32	8	12.5	45	0.55		
J1.6-1.5/16		16				0.37		
J1.6-2.0/32	2	32			58	0.55		
J1.6-2.0/16		16				0.37		
J1.6-2.4/20	2.4	20	10	12.5	45	0.55		
J1.6-2.4/10		10				0.37		
J1.6-3.0/20	3	20			58	0.55		
J1.6-3.0/10		10				0.37		
J1.6-3.5/12.5	3.5	12.5	12	12.5	45	0.55		
J1.6-3.5/6.3		6.3				0.37		
J1.6-4.5/12.5	4.5	12.5			58	0.55		
J1.6-4.5/6.3		6.3				0.37		

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
J1.6-5.6/32	5.6	32	8	20	106	0.55	DN10	60
J1.6-5.6/16		16				0.37		
J1.6-7.2/25	7.2	25			135	0.55		
J1.6-7.2/12.5		12.5				0.37		
J1.6-8.5/32	8.5	32	168		0.75			
J1.6-9.0/20	9	20	106		0.55			
J1.6-9.0/10		10			0.37			
J1.6-11.5/16	11.5	16	135		0.55			
J1.6-11.5/8		8			0.37			
J1.6-13/20	13	20	168		0.75			
J1.6-13/12.5	13	12.5	106		0.55			
J1.6-13/6.3		6.3			0.37			
J1.6-16.5/10	16.5	10	135		0.55			
J1.6-16.5/5		5			0.37			
J1.6-20/12.5	20	12.5	168		0.75			
J1.6-23/8	23	8	106	0.55				
J1.6-23/4		4		0.37				
J1.6-30/6.3	30	6.3	135	0.55				
J1.6-30/3		3.2		0.75				
J1.6-36/8	36	8	168	0.75				
J1.6-36/5	36	5	106	0.55				
J1.6-36/2.5		2.5		0.37				
J1.6-46/4	46	4	135	0.55				
J1.6-46/2		2		0.37				
J1.6-58/4.5	58	4.5	168	1.1				
J1.6-58/3.2	58	3.2	106	0.55				
J1.6-58/1.6		1.6		0.37				
J1.6-72/2.5	72	2.5	135	0.55				
J1.6-72/1.3		1.3		0.37				
J1.6-90/3	90	3	168	0.75				
J1.6-80/2.2	80	2.2	106	0.55				
J1.6-80/1		1		0.37				
J1.6-105/1.6	105	1.6	135	0.55				
J1.6-105/0.8		0.8		0.37				
J1.6-130/2	130	2	168	0.75				
J1.6-95/2	95	2	106	0.55				
J1.6-95/1		1		0.37				
J1.6-120/1.6	120	1.6	135	0.55				
J1.6-120/0.8		0.8		0.37				
J1.6-150/1.6	150	1.5	135	0.75				
J1.6-150/1.3		1.3		0.55				
J1.6-150/0.8		0.8		0.37				
J1.6-190/1.3	190	1.3	168	0.75				
J1.6-190/1.25	190	1.25	135	0.75				
J1.6-190/1.0		1		0.55				
J1.6-190/0.63		0.63		0.37				
J1.6-240/1.25	240	1	168	0.75				

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
J3.0-6.5/45	6.5	45	8	28	96	1.1	Ø8 Cutting Sleeve	75
J3.0-6.5/32		32				0.75		
J3.0-10/40	10	40			140	1.1		
J3.0-10/25		25				0.75		
J3.0-11/30	11	30	96		1.1			
J3.0-11/20		20			0.75			
J3.0-16/25	16	25			140	1.1		
J3.0-16/16		16				0.75		
J3.0-24/20	24	20	140		1.1			
J3.0-24/10		10			0.75			
J3.0-30/12.5	30	12.5	96		1.1			
J3.0-30/8		8			0.75			
J3.0-42/10	42	10	140		1.1			
J3.0-42/6.3		6.3			0.75			
J3.0-45/8	45	8	96		1.1			
J3.0-45/5		5			0.75			
J3.0-68/6.0	68	6			140	1.1		
J3.0-68/4		4				0.75		
J3.0-72/6	72	6	96		1.1			
J3.0-72/3.2		3.2			0.75			
J3.0-105/4	105	4	140		1.1			
J3.0-105/2.5		2.5			0.75			
J3.0-120/3.2	120	3.2	96		1.1			
J3.0-120/2.2		2.2			0.75			
J3.0-175/2.2	175	2.2	140	1.1				
J3.0-175/1.5		1.5		0.75				
J3.0-150/2.5	150	2.5	96	1.1				
J3.0-150/1.6		1.6		0.75				
J3.0-220/2	220	2	140	1.1				
J3.0-220/1.5		1.5		0.75				
J3.0-185/2.2	185	2.2	96	1.1				
J3.0-185/1.4		1.4		0.75				
J3.0-270/1.6	270	1.6	140	1.1				
J3.0-270/1.0		1		0.75				
J3.0-240/1.6	240	1.6	96	1.1				
J3.0-240/1.0		1		0.75				
J3.0-350/1.2	350	1.2	140	1.1				
J3.0-350/0.8		0.8		0.75				
J3.0-420/1.3	420	1.3	50	140	1.5			
J3.0-420/1.0		1			1.1			
J3.0-420/0.63		0.63			0.75			

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (kW)	suction and discharge connection size (mm)	Weight (Kg)
J5.0-7.5/50	7.5	50	8	32	102	1.5	Ø8 Cutting Sleeve	135
J5.0-7.5/40		40				0.75		
J5.0-9.5/50	9.5	50	120		1.5			
J5.0-9.5/32		32			0.75			
J5.0-12/50	12	50	102		1.5			
J5.0-12/32		32			0.75			
J5.0-16/50	16	50	120		1.5			
J5.0-16/25		25			0.75			
J5.0-19/50	19	50	145		2.2			
J5.0-19/40	19	40			102	1.5		
J5.0-19/20		20	0.75					
J5.0-24/32	24	32	120		1.5			
J5.0-24/16		16			0.75			
J5.0-28/40	28	40	145		2.2			
J5.0-32/25	32	25			102	1.5		
J5.0-32/12.5		12.5	0.75					
J5.0-40/20	40	20	120		1.5			
J5.0-40/10		10			0.75			
J5.0-50/20	50	25	145		2.2			
J5.0-50/16	50	16			102	1.5		
J5.0-50/8		8	0.75					
J5.0-63/12.5	63	12.5	120		1.5			
J5.0-63/6.3		6.3			0.75			
J5.0-80/12.5	80	16	145		2.2			
J5.0-80/10	80	10			102	1.5		
J5.0-80/5		5	0.75					
J5.0-100/8	100	8	120		1.5			
J5.0-100/4		4			0.75			
J5.0-125/8	125	10	145		2.2			
J5.0-125/6.3	125	6.3			102	1.5		
J5.0-125/3.2		3.2	0.75					
J5.0-160/5	160	5	120		1.5			
J5.0-160/2.5		2.5			0.75			
J5.0-200/5	200	5	145		2.2			
J5.0-200/4	200	4			102	1.5		
J5.0-200/2.0		2.0	0.75					
J5.0-250/3.2	250	3.2	120		1.5			
J5.0-250/1.6		1.6			0.75			
J5.0-320/3.2	320	4	145		2.2			
J5.0-320/2.5	320	2.5			102	1.5		
J5.0-320/1.3		1.3	0.75					
J5.0-400/2	400	2	120		1.5			
J5.0-400/1		1			0.75			
J5.0-500/2	500	2	145		2.2			
J5.0-500/1.6	500	1.6			102	1.5		
J5.0-500/0.8		0.8	0.75					
J5.0-600/1.3	600	1.3	120		1.5			
J5.0-600/0.63		0.63			0.75			
J5.0-720/1.5	720	1.6	145		2.2			
J5.0-800/1	800	1			102	1.5		
J5.0-800/0.5		0.5	0.75					
J5.0-1000/0.8	1000	0.8	120		1.5			
J5.0-1000/0.4		0.4			0.75			
J5.0-1250/0.8	1250	1	145		2.2			
J5.0-1200/0.63	1200	0.63			120	1.5		
J5.0-1200/0.32		0.32	0.75					
J5.0-1500/0.8	1500	0.8	145		2.2			
J5.0-1500/0.5	1500	0.5			120	1.5		
J5.0-1500/0.25		0.25	0.75					
J5.0-1800/0.63	1800	0.63	145		2.2			

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.

2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
J12.5-28/50	28	50	12	50	96	4	DN15	315
J12.5-28/40		40				2.2		
J12.5-36/50	36	50			120	4		
J12.5-36/32		32				2.2		
J12.5-50/50	50	50	16		96	4		
J12.5-50/25		25				2.2		
J12.5-63/40	63	40			120	4		
J12.5-63/20		20				2.2		
J12.5-80/32	80	32	20		96	4		
J12.5-80/16		16				2.2		
J12.5-100/25	100	25			120	4		
J12.5-120/12.5	120	12.5				2.2		
J12.5-120/32		32	147		5.5			
J12.5-130/20	130	20	25		96	4		
J12.5-130/10		10				2.2		
J12.5-160/16	160	16			120	4		
J12.5-160/8		8				2.2		
J12.5-190/20	190	20	147		5.5			
J12.5-210/12.5	210	12.5	32		96	4		
J12.5-210/6.3		6.3				2.2		
J12.5-250/10	250	10			120	4		
J12.5-250/5		5				2.2		
J12.5-320/12.5	320	12.5	147		5.5			
J12.5-340/8	340	8	40		96	4		
J12.5-340/4		4				2.2		
J12.5-400/6.3	400	6.3			120	4		
J12.5-400/3.2		3.2				2.2		
J12.5-500/8	500	8	50		147	5.5		
J12.5-500/5		5			96	4		
J12.5-500/2.5		2.5				2.2		
J12.5-630/4		630			4	120	4	
J12.5-630/2	2				2.2			
J12.5-800/5	800	5	63		147	5.5		
J12.5-800/3.2		3.2			96	4		
J12.5-800/1.6		1.6				2.2		
J12.5-1000/2.5		1000			2.5	120	4	
J12.5-1000/1.3	1.3				2.2			
J12.5-1250/3.2	1250	3.2	147		5.5			
J12.5-1250/2	1250	2	80		96	4		
J12.5-1250/1		1				2.2		
J12.5-1600/1.6	1600	1.6	90		120	4		
J12.5-1600/0.8		0.8				2.2		
J12.5-2000/2	2000	2			147	5.5		
J12.5-2100/1.5	2000	1.5			100	120	4	
J12.5-2100/0.63		0.63				2.2		
J12.5-2600/1.5	2600	1.5	147			5.5		
J12.5-2500/1.0	2500	1.0	110			120	4	
J12.5-2500/0.5		0.5				2.2		
J12.5-3200/1.2	3200	1.2			147	5.5		
J12.5-3200/0.8		0.8			120	4		
J12.5-3800/1	3800	1			147	5.5		

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.

2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter	Stroke (mm)	Pump speed (Min-1)	Motor power	suction and discharge connection size	Weight (Kg)		
J25-160/32	160	32	20	80	120	7.5	DN15	700		
J25-200/50	200	50	25		96	11				
J25-200/25		25				7.5				
J25-250/40	250	40			120	11				
J25-250/20		20				7.5				
J25-310/50	310	50	32		147	15	DN20			
J25-320/32	320	32			96	11				
J25-320/16		16				7.5				
J25-400/25	400	25			120	11				
J25-400/12.5		12.5				7.5				
J25-500/25	500	25	40		147	15	DN25			
J25-500/20	500	20			96	11				
J25-500/10		10				7.5				
J25-640/16	640	16			120	11				
J25-640/8		8				7.5				
J25-800/16	800	20	50		147	15				
J25-800/12.5	800	12.5			96	11				
J25-800/6.3		6.3				7.5				
J25-1000/10	1000	10			120	11				
J25-1000/5		5				7.5				
J25-1260/10	1260	12.5	63		147	15	DN32			
J25-1260/8	1260	8			96	11				
J25-1260/4		4				7.5				
J25-1600/6.3	1600	6.3			120	11	DN40			
J25-1600/3.2		3.2				7.5				
J25-2000/6.3	2000	8	80		147	15				
J25-2000/5	2000	5			96	11				
J25-2000/2.5		2.5				7.5				
J25-2500/4	2500	4			120	11				
J25-2500/2		2				7.5				
J25-3200/4	3200	5	100		147	15	DN50			
J25-3200/3.2	3200	3.2			96	11				
J25-3200/1.6		1.6				7.5				
J25-4000/2.5	4000	2.5			120	11				
J25-4000/1.3		1.3				7.5				
J25-5000/3.2	5000	3.2	125		150	15				
J25-5000/2	5000	2			96	11				
J25-5000/1		1				7.5				
J25-6300/1.6	6300	1.6			120	11	DN65			
J25-6300/0.8		0.8				7.5				
J25-8000/2	8000	2	140		150	15				
J25-8000/1.6	8000	1.6			120	11				
J25-8000/1.25		1.25				7.5				
J25-8000/0.63	10000	0.63			150	15				
J25-10000/1.6		1.25	160			15	DN80			
J25-10000/1.2	10000	1.2	120		11					
J25-10000/1.0		1.0			7.5					
J25-10000/0.5	10000	0.5	120		11					
J25-12500/1		1			180				7.5	
J25-12500/0.8	12500	0.8	147		15	DN100				
J25-12500/0.4		0.4			11					
J25-16000/0.8	16000	0.8	200		120				11	
J25-16000/0.63		0.63							7.5	
J25-16000/0.32	16000	0.32			147				15	
J25-20000/0.63		0.63							11	

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size	
J50-320/50	320	50	25	100	120	15	DN25	
J50-380/50	380		32		144	18.5		
J50-500/50	500				120	22		
J50-600/50	600				144	30		
J50-650/40	650	40	36		120	22		
J50-800/40	800	40	120		30			
J50-800/32					22			
J50-1000/32	1000				32	144		30
J50-1000/25	25				22			
J50-1250/25	1250	50	120		30	DN32		
J50-1250/20					22			
J50-1500/20	1500				20		144	30
J50-1500/16								22
J50-2000/16	2000	16	63		120	30	DN40	
J50-2000/12.5		12.5			144	22		
J50-2500/12.5	2500					10		30
J50-2500/10		22						
J50-3200/10	3200	8	80		120	30	DN50	
J50-3200/8					22			
J50-4000/8	4000	6.3				144		30
J50-4000/6.3					22			
J50-5000/6.3	5000	5	100		120	30	DN65	
J50-5000/5					22			
J50-6300/5	6300					144		30
J50-6300/4					22			
J50-8000/4	8000	4	125		120	30	DN80	
J50-8000/3.2					22			
J50-10000/3.2	10000	3.2				144		30
J50-10000/2.5					22			
J50-12000/3.2	12000	3.2	140		37		DN100	
J50-12000/2.5		2.5			30			
J50-12000/2		2			22			
J50-16000/2.5	16000	2.5	160		37			
J50-16000/2		2			30			
J50-16000/1.5		1.5			22			
J50-20000/2	20000	2	180		37	DN125		
J50-20000/1.6		1.6			30			
J50-20000/1.2							22	
J50-25000/1.6	25000	1.6	200		37			
J50-25000/1.3		1.3			30			
J50-25000/1.1		1.1			22			

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	flow rate(L/h)			pressure (Mpa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (min ⁻¹)	Motor power(KW)			Inlet and outlet diameter (mm)	Weight(Kg)		
	J-X	2J-X	3J-X					J-X	2J-X	3J-X		J-X	2J-X	3J-X
J-X □ /32	3.8	7.6	11.4	32	8	20	72	0.55	0.75	0.75	Ø6 Cutting Sleeve	45	66	52
J-X □ /16				16				0.37	0.55	0.55				
J-X □ /25	5.0	10	15	25			96	0.55	0.75	0.75				
J-X □ /12.5				12.5				0.37	0.55	0.55				
J-X □ /20	6.3	12.6	18.9	20	10		72	0.55	0.75	0.75				
J-X □ /10				10				0.37	0.55	0.55				
J-X □ /16	8.0	16	24	16			96	0.55	0.75	0.75				
J-X □ /8				8				0.37	0.55	0.55				
J-X □ /12.5	9	18	27	12.5	12		72	0.55	0.75	0.75	Ø8 Cutting Sleeve			
J-X □ /6.3				6.3				0.37	0.55	0.55				
J-X □ /10	12	24	36	10			96	0.55	0.75	0.75				
J-X □ /5				5				0.37	0.55	0.55				
J-X □ /8	16	32	48	8	16		72	0.55	0.75	0.75				
J-X □ /4				4				0.37	0.55	0.55				
J-X □ /6.3	20	40	60	6.3			96	0.55	0.75	0.75				
J-X □ /3.2				3.2				0.37	0.55	0.55				
J-X □ /5	25	50	75	5	20		72	0.55	0.75	0.75	DN10			
J-X □ /2.5				2.5				0.37	0.55	0.55				
J-X □ /4	32	64	96	4			96	0.55	0.75	0.75				
J-X □ /2				2				0.37	0.55	0.55				
J-X □ /3.2	40	80	120	3.2	25		72	0.55	0.75	0.75				
J-X □ /1.6				1.6				0.37	0.55	0.55				
J-X □ /2.5	50	100	150	2.5			96	0.55	0.75	0.75				
J-X □ /1.3				1.3				0.37	0.55	0.55				
J-X □ /2.2	55	110	165	2.2	30		72	0.55	0.75	0.75	DN15			
J-X □ /1.1				1.1				0.37	0.55	0.55				
J-X □ /1.6	75	150	225	1.6			96	0.55	0.75	0.75				
J-X □ /0.8				0.8				0.37	0.55	0.55				
J-X □ /1.2	105	210	315	1.2			140	0.55	0.75	0.75				
J-X □ /0.6				0.6				0.37	0.55	0.55				
J-X □ /2	63	126	189	2	32		72	0.55	0.75	0.75				
J-X □ /1.0				1				0.37	0.55	0.55				
J-X □ /1.5	84	168	252	1.5			96	0.55	0.75	0.75				
J-X □ /0.8				0.8				0.37	0.55	0.55				
J-X □ /1.1	120	240	360	1.1	140		0.55	0.75	0.75					
J-X □ /0.6				0.6			0.37	0.55	0.55					
J-X □ /1.5	155	310	465	1.5	36		140	0.75	1.1	1.5				
J-X □ /0.8				0.8				0.55	0.75	0.75				
J-X □ /0.4	190	380	570	0.4			140	0.37	0.55	0.55				
J-X □ /1.2				1				0.75	1.1	1.5				
J-X □ /0.63	190	380	570	0.63	40		140	0.55	0.75	0.75				
J-X □ /0.32				0.32				0.37	0.55	0.55				

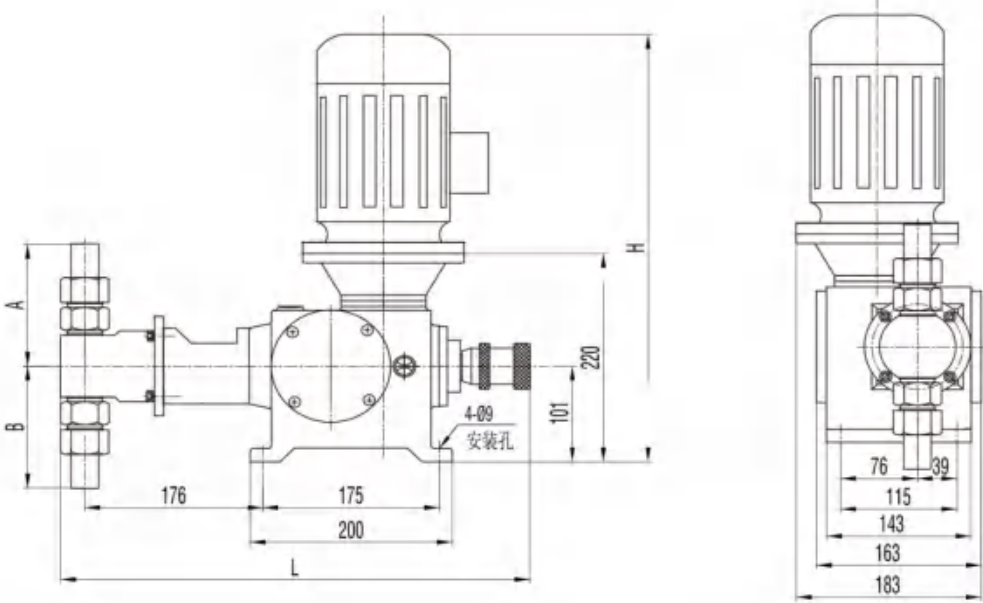
Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	flow rate(L/h)			pressure (Mpa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (min ⁻¹)	Motor power(KW)			Inlet and outlet diameter (mm)	Weight(Kg)				
	J-X	2J-X	3J-X					J-X	2J-X	3J-X		J-X	2J-X	3J-X		
J-X □ /30	0.25	0.5	0.75	30	5	10	30	0.18-6	0.37-6	0.37-6	Ø6 Cutting Sleeve	32	63	48		
J-X □ /30	0.4	0.8	1.2		6		30	0.18-6	0.37-6	0.37-6						
J-X □ /30	0.65	1.3	1.95				48	0.18	0.37	0.55						
J-X □ /30	0.6	1.2	1.8				48	0.18	0.37	0.55						
J-X □ /30	1	2	3		8	15	72	0.37	0.55	0.55						
J-X □ /30	1.8	3.6	5.4				48	0.37	0.55	0.55						
J-X □ /30	2.8	5.6	8.4				72	0.37	0.75	0.75						
J-X □ /20	3	6	9				48	0.37	0.55	0.55						
J-X □ /20	4.5	9	13.5	20	10	72	0.37	0.75	0.75							
J-X □ /12.5	6.5	13	19.5				72	0.37	0.75						0.75	Ø8 Cutting Sleeve

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

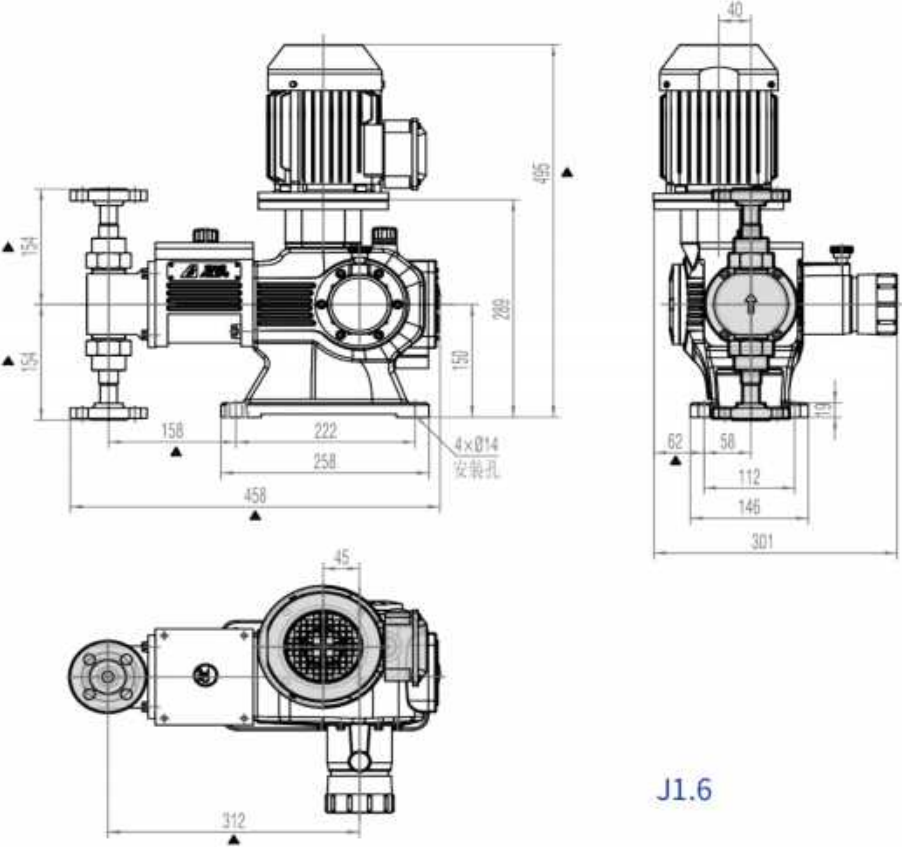
Outline Dimension and installation reference size

The size with ‘△’ is the reference size. The specific size is shown in the design drawing



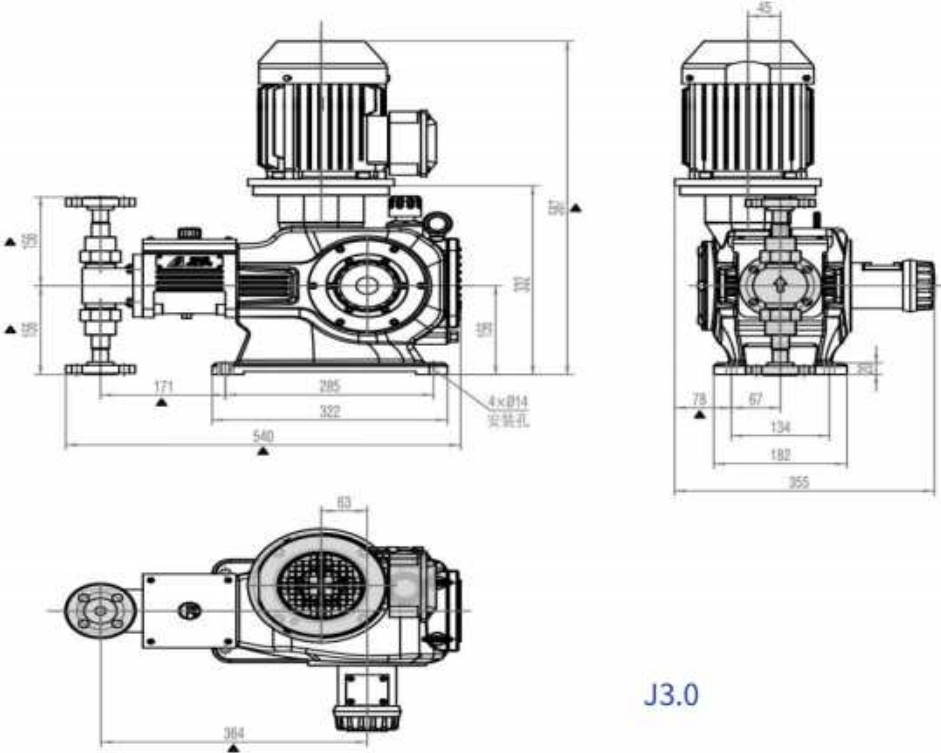
J-X

Outline Dimension and installation reference size



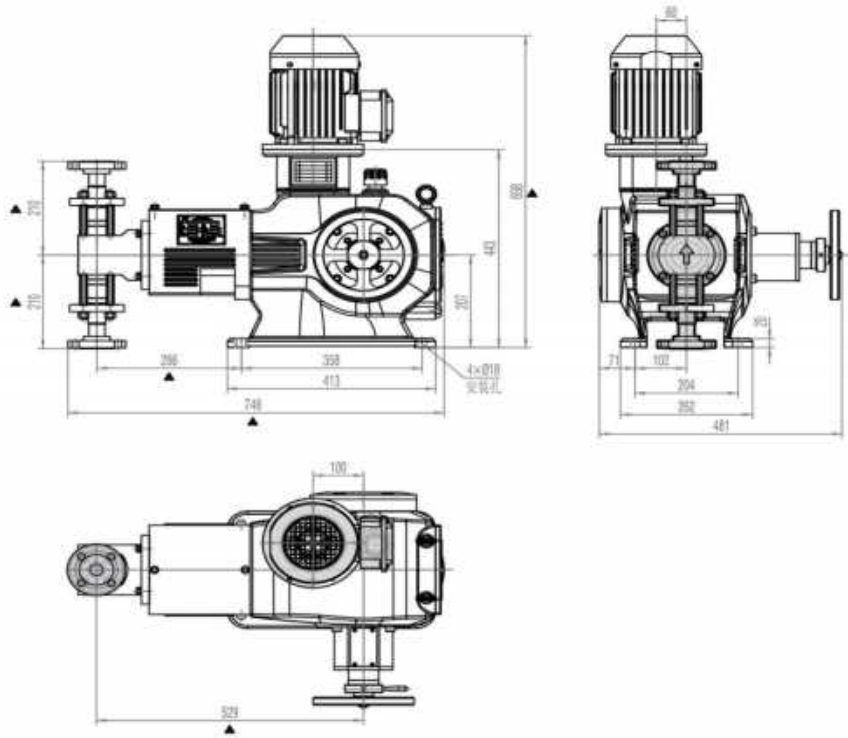
J1.6

The size with '△' is the reference size. The specific size is shown in the design drawing



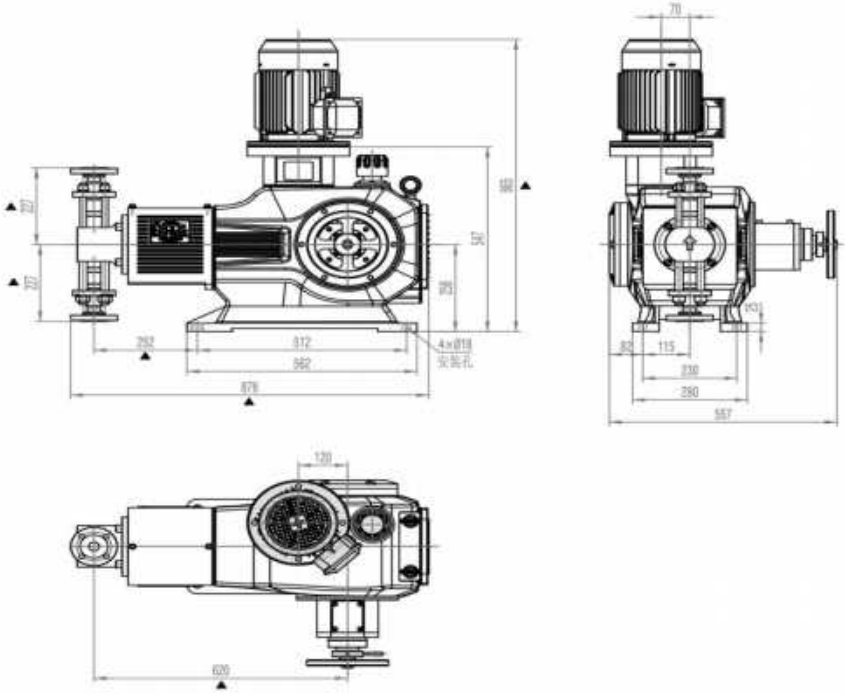
J3.0

Outline Dimension and installation reference size

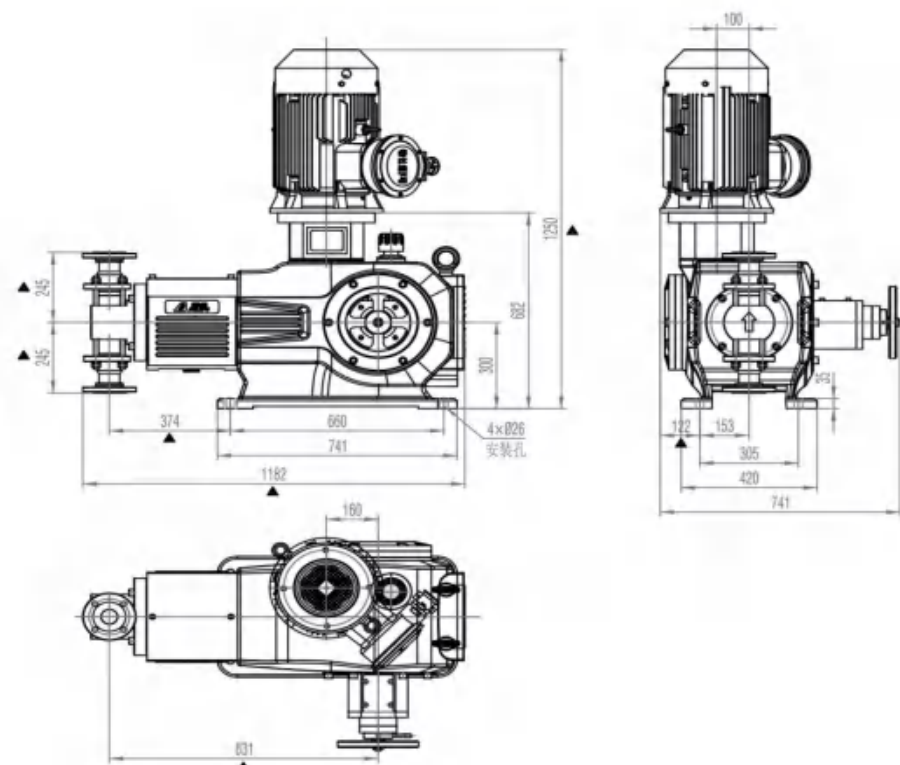


J5.0

The size with '△' is the reference size. The specific size is shown in the design drawing

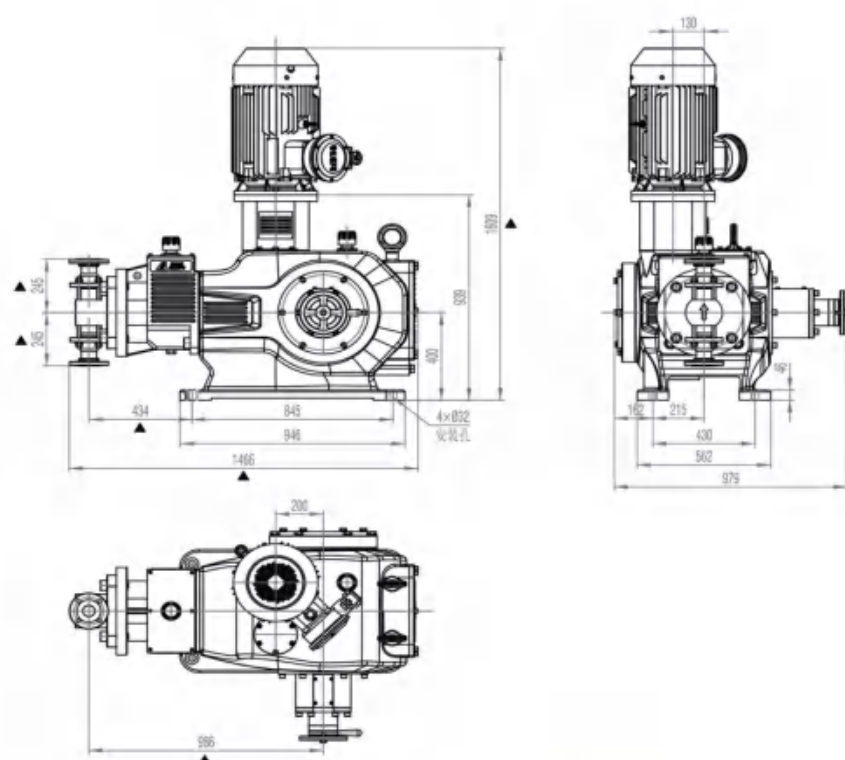


J12.5



J25

The size with '△' is the reference size. The specific size is shown in the design drawing



J50

B

Product Overview

The hydraulic end of the pump with the help of the diaphragm to form the working chamber, the diaphragm periodic deformation to replace the reciprocating motion of the plunger (piston) pump, called the diaphragm pump. Diaphragm cyclic deformation is achieved with the help of the plunger (piston) in the hydraulic working chamber reciprocating motion to produce hydraulic drive diaphragm metering pump, called hydraulic diaphragm metering pump.

Function

- 1.No dynamic seal, no leakage, and easy maintenance. Built-in hydraulic safety valve will automatically open when the process pipeline is blocked , to protect the pump and pipeline.
- 2.Working pressure up to 80MPa, metering accuracy can reach $\pm 1\%$; single cylinder pump flow range: 0.2L/h-16000L/h.
- 3.Metering accuracy is better than mechanical diaphragm pump; sealing performance is better than plunger pump.
4. Flow rate control is achieved by adjusting the stroke length and variable frequency speed, if equipped with a stroke/digital controller or frequency converter, it is convenient to achieve remote automatic control.
5. The temperature of the medium should be $-30^{\circ}\text{C}\sim 120^{\circ}\text{C}$. When the temperature is $120\sim 280^{\circ}\text{C}$, special structure and design is required, otherwise the life of the diaphragm will be compromised.
6. The new three-valve structure (safety valve, exhaust valve and oil filling valve), in which the application of the limiting oil filling mechanism avoids over-filling and increases the diaphragm life to more than 8000h.
7. When dosing special medium, double diaphragms with diaphragm rupture alarm device can be used to prevent accidents caused by the mixing of medium and hydraulic oil when the diaphragm ruptures.

Hydraulic end wetted parts

The products are widely used in petrochemical, oil & gas, chemical, power, nuclear, mining, medicine, food and other fields, and are indispensable pump type for precise dosing in modern industry. Especially popular in the process of transporting various liquid media of high viscosity, high pressure, high temperature and extruding polystyrene (XPS) foam industry in the process of carbon dioxide, butane, Freon filling, etc.

AILIPU

Hydraulic diaphragm
metering pumps

Selection parameters

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)		
JYM1.6-0.25/10	0.25	10	6	7	45	0.37	Φ6 Cutting Sleeve	70		
JYM1.6-0.35/10	0.35	10			58	0.37				
JYM1.6-0.45/10	0.45	10		12.5	45	0.37				
JYM1.6-0.6/10	0.6	10			58	0.37				
JYM1.6-0.35/20	0.35	20	8	7	30	0.37-6			Φ8 Cutting Sleeve	
JYM1.6-0.55/20	0.55	20			45	0.37				
JYM1.6-0.7/20	0.7	20			58	0.37				
JYM1.6-1.0/20	1	20		12.5	45	0.55				
JYM1.6-1.0/32	1	32			58	0.55				
JYM1.6-1.6/20	1.6	20	10	12.5	45	0.55				
JYM1.6-1.6/10		10				0.37				
JYM1.6-2.4/20	2.4	20			58	0.55				
JYM1.6-2.4/10		10				0.37				
JYM1.6-3.2/12.5	3.2	12.5			12	12.5			45	0.55
JYM1.6-3.2/6.3		6.3								0.37
JYM1.6-4.1/12.5	4.1	12.5	58	0.55						
JYM1.6-4.1/6.3		6.3		0.37						

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
JYM1.6-3/32	3	32	8	20	106	0.55	Ø6 Cutting Sleeve	85
JYM1.6-3/16		16			135	0.37		
JYM1.6-4.5/25	4.5	25				0.55		
JYM1.6-4.5/12.5		12.5				0.37		
JYM1.6-5.5/32	5.5	32	168		0.55			
JYM1.6-6/20	6	20	106		0.55			
JYM1.6-6/10		10	0.37					
JYM1.6-8/16	8	16	135		0.55			
JYM1.6-8/8		8	0.37					
JYM1.6-10/20	10	20	168		0.55			
JYM1.6-11.5/12.5	11.5	12.5	106		0.55	DN10		
JYM1.6-11.5/6.3		6.3	0.37					
JYM1.6-15/10	15	10	135		0.55			
JYM1.6-15/5		5	0.37					
JYM1.6-18/12.5	18	12.5	168		0.75			
JYM1.6-22/8	22	8	106		0.55			
JYM1.6-22/4		4	0.37					
JYM1.6-28/6.3	28	6.3	135		0.55			
JYM1.6-28/3.2		3.2	0.37					
JYM1.6-35/8	35	8	168		0.75			
JYM1.6-36/5	36	5	106		0.55	DN15		
JYM1.6-36/2.5		2.5	0.37					
JYM1.6-45/4	45	4	135		0.55			
JYM1.6-45/2		2	0.37					
JYM1.6-55/5	55	5	168		0.75			
JYM1.6-55/3.2		3.2	106		0.55			
JYM1.6-55/1.6	72	1.6	135		0.37			
JYM1.6-72/2.5		2.5			0.55			
JYM1.6-72/1.3	72	1.3	168		1.1			
JYM1.6-90/3	90	3	106		0.55		DN20	
JYM1.6-80/2.2	80	2.2	0.37					
JYM1.6-80/1		1	135		0.55			
JYM1.6-105/1.6	105	1.6	0.37					
JYM1.6-105/0.8		0.8	168		0.75			
JYM1.6-130/2	130	2	106		0.55			
JYM1.6-92/2	92	2	0.37					
JYM1.6-92/1		1	135		0.55			
JYM1.6-120/1.6	120	1.6	168		0.37			
JYM1.6-120/0.8		0.8			0.75			
JYM1.6-150/1.6	150	1.6	135		0.75			
JYM1.6-150/1.3		1.3			0.55			
JYM1.6-150/0.8	0.8	0.37						
JYM1.6-190/1.3	190	1.3	168		0.75			
JYM1.6-190/1.25	190	1.25	135		0.75			
JYM1.6-190/1		1			0.55			
JYM1.6-190/0.63		0.63			0.37			
JYM1.6-240/1	240	1	168		0.75			
JYM1.6-240/1.0	240	1	135		0.75			
JYM1.6-240/0.8		0.8			0.55			
JYM1.6-240/0.5		0.5			0.37			
JYM1.6-300/0.8	300	0.8	168		0.75			
JYM1.6-300/0.8	285	0.8	135		0.75			
JYM1.6-300/0.63		0.63			0.55			
JYM1.6-300/0.32		0.32			0.37			
JYM1.6-360/0.8	360	0.8	168		0.75			

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
JYM3.0-4/40	4	40	8	28	96	1.1	Ø6 Cutting Sleeve	120
JYM3.0-4/32		32				0.75		
JYM3.0-6/40	6	40	140		1.1			
JYM3.0-6/32		32			0.75			
JYM3.0-10/30	10	30	96		1.1	Ø8 Cutting Sleeve		
JYM3.0-10/20		20			0.75			
JYM3.0-14/25	14	25	140		1.1			
JYM3.0-14/16		16			0.75			
JYM3.0-20/20	20	20	140		1.1	Ø8 Cutting Sleeve		
JYM3.0-20/10		10			0.75			
JYM3.0-27/12.5	27	12.5	96		1.1		DN15	
JYM3.0-27/8		8			0.75			
JYM3.0-40/10	40	10	140		1.1			
JYM3.0-40/6.3		6.3			0.75			
JYM3.0-45/8	45	8	96		1.1			
JYM3.0-45/5		5			0.75			
JYM3.0-68/6	68	6	140		1.1			
JYM3.0-68/4		4			0.75			
JYM3.0-72/6	72	6	96		1.1			
JYM3.0-72/3.2		3.2			0.75			
JYM3.0-105/4	105	4	140		1.1			
JYM3.0-105/2.5		2.5			0.75			
JYM3.0-120/3.2	120	3.2	96		1.1			
JYM3.0-120/2.2		2.2			0.75			
JYM3.0-170/2.2	170	2.2	140		1.1			
JYM3.0-170/1.5		1.5			0.75			
JYM3.0-150/2.5	150	2.5	96		1.1			
JYM3.0-150/1.6		1.6			0.75			
JYM3.0-220/2	220	2	140		1.1	DN20		
JYM3.0-220/1.5		1.5			0.75			
JYM3.0-185/2.2	185	2.2	96		1.1			
JYM3.0-185/1.4		1.4			0.75			
JYM3.0-270/1.6	270	1.6	140		1.1			
JYM3.0-270/1		1			0.75			
JYM3.0-240/1.6	240	1.6	96		1.1			
JYM3.0-240/1		1			0.75			
JYM3.0-350/1.2	350	1.2	140		1.1			
JYM3.0-350/0.8		0.8			0.75			
JYM3.0-420/1.3	420	1.3	140		1.5		DN25	
JYM3.0-420/1		1			1.1			
JYM3.0-420/0.63		0.63			0.75			

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
JYM5.0-10/40	10	40	12	32	102	0.75	Ø8 Cutting Sleeve	200
JYM5.0-16/32	16	32			120	1.5		
JYM5.0-16/25		25				0.75		
JYM5.0-21/32	21	32	102		1.5	DN10		
JYM5.0-21/16		16			0.75			
JYM5.0-28/25	28	25	120		1.5			
JYM5.0-28/12.5		12.5			0.75			
JYM5.0-30/32	30	32	145		2.2			
JYM5.0-32/25	32	25	102		1.5			
JYM5.0-32/12.5		12.5			0.75			
JYM5.0-40/20	40	20	120		1.5			
JYM5.0-40/10		10			0.75			
JYM5.0-45/25	45	25	145		2.2			
JYM5.0-50/16	50	16	102		1.5	DN15		
JYM5.0-50/8		8			0.75			
JYM5.0-63/12.5	63	12.5	120		1.5			
JYM5.0-63/6.3		6.3			0.75			
JYM5.0-75/16	75	16	145		2.2			
JYM5.0-80/10	80	10	102		1.5			
JYM5.0-80/5		5			0.75			
JYM5.0-100/8	100	8	120		1.5			
JYM5.0-100/4		4			0.75			
JYM5.0-120/10	120	10	145		2.2			
JYM5.0-125/6.3	125	6.3	102		1.5	DN20		
JYM5.0-125/3.2		3.2			0.75			
JYM5.0-160/5	160	5	120		1.5			
JYM5.0-160/2.5		2.5			0.75			
JYM5.0-200/6	200	6	145		2.2			
JYM5.0-200/4		4			1.5			
JYM5.0-200/2.0	200	2.0	102		0.75			
JYM5.0-250/3.2		3.2			1.5			
JYM5.0-250/1.6	250	1.6	120		0.75			
JYM5.0-320/4		3.2			2.2			
JYM5.0-320/2.5	320	2.5	102		1.5			
JYM5.0-320/1.3		1.3			0.75			
JYM5.0-400/2	400	2	120		1.5	DN25		
JYM5.0-400/1		1			0.75			
JYM5.0-500/2.5	500	2	145		2.2			
JYM5.0-500/1.6		1.6			1.5			
JYM5.0-500/0.8	500	0.8	102		0.75			
JYM5.0-630/1.3		1.3			1.5			
JYM5.0-630/0.63	630	0.63	120		0.75			
JYM5.0-720/1.6		1.6			2.2			
JYM5.0-800/1	800	1	102		1.5			
JYM5.0-800/0.5		0.5			0.75			
JYM5.0-1000/0.8	1000	0.8	120		1.5			
JYM5.0-1000/0.4		0.4			0.75			
JYM5.0-1200/0.8	1200	0.8	145		2.2			
JYM5.0-1200/0.63	1200	0.63	120		1.5	DN32		
JYM5.0-1200/0.32		0.32			0.75			
JYM5.0-1450/0.8	1450	0.8	145		2.2	DN40		
JYM5.0-1350/0.6	1350	0.6	120		1.5			
JYM5.0-1350/0.3		0.3			0.75			
JYM5.0-1600/0.63	1600	0.63	145		2.2			
JYM5.0-1500/0.5	1500	0.5	120		1.5			
JYM5.0-1500/0.25		0.25			0.75			
JYM5.0-1800/0.63	1800	0.63	145		2.2			

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)
JYM12.5-32/40	32	40	14	50	96	2.2	DN15	350
JYM12.5-40/40	40	40	16		96	4		
JYM12.5-40/25		25				2.2		
JYM12.5-56/40	56	40			120	4		
JYM12.5-56/20		20	2.2					
JYM12.5-75/32	75	32	96		4			
JYM12.5-75/16		16			2.2			
JYM12.5-100/25	100	25	120		4			
JYM12.5-100/12.5		12.5			2.2			
JYM12.5-115/32	115	32	147		5.5			
JYM12.5-120/20	120	20	96		4			
JYM12.5-120/10		10			2.2			
JYM12.5-160/16	160	16	120		4			
JYM12.5-160/8		8			2.2			
JYM12.5-190/20	190	20	147		5.5			
JYM12.5-200/12.5	200	12.5	96		4			
JYM12.5-200/6.3		6.3			2.2			
JYM12.5-250/10	250	10	120		4			
JYM12.5-250/5		5			2.2			
JYM12.5-320/12.5	320	12.5	147		5.5			
JYM12.5-320/8	320	8	96		4			
JYM12.5-320/4		4			2.2			
JYM12.5-400/6.3	400	6.3	120		4			
JYM12.5-400/3.2		3.2			2.2			
JYM12.5-500/8	500	8	147		5.5			
JYM12.5-500/5	500	5	96		4			
JYM12.5-500/2.5		2.5			2.2			
JYM12.5-630/4	630	4	120		4			
JYM12.5-630/2		2			2.2			
JYM12.5-780/5	780	5	147		5.5			
JYM12.5-800/3.2	800	3.2	96		4			
JYM12.5-800/1.6		1.6			2.2			
JYM12.5-1000/2.5	1000	2.5	120		4			
JYM12.5-1000/1.3		1.3			2.2			
JYM12.5-1250/3.2	1250	3.2	147		5.5			
JYM12.5-1250/2	1250	2	96		4			
JYM12.5-1250/1		1			2.2			
JYM12.5-1600/1.6	1600	1.6	120		4			
JYM12.5-1600/0.8		0.8			2.2			
JYM12.5-2000/2	2000	2	147		5.5			
JYM12.5-2000/1.3	2000	1.3	96		4			
JYM12.5-2000/0.8		0.8			2.2			
JYM12.5-2500/1.0	2500	1.0	120		4			
JYM12.5-2500/0.63		0.63			2.2			
JYM12.5-3000/1.3	3000	1.3	147		5.5			
JYM12.5-3000/0.8	3000	0.8	120		4			
JYM12.5-3000/0.4		0.4			2.2			
JYM12.5-3700/1	3700	1	147		5.5			
JYM12.5-3700/0.8	3700	0.8	120		4			
JYM12.5-3700/0.4		0.4			2.2			
JYM12.5-4500/0.8	4500	0.8	147		5.5			

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

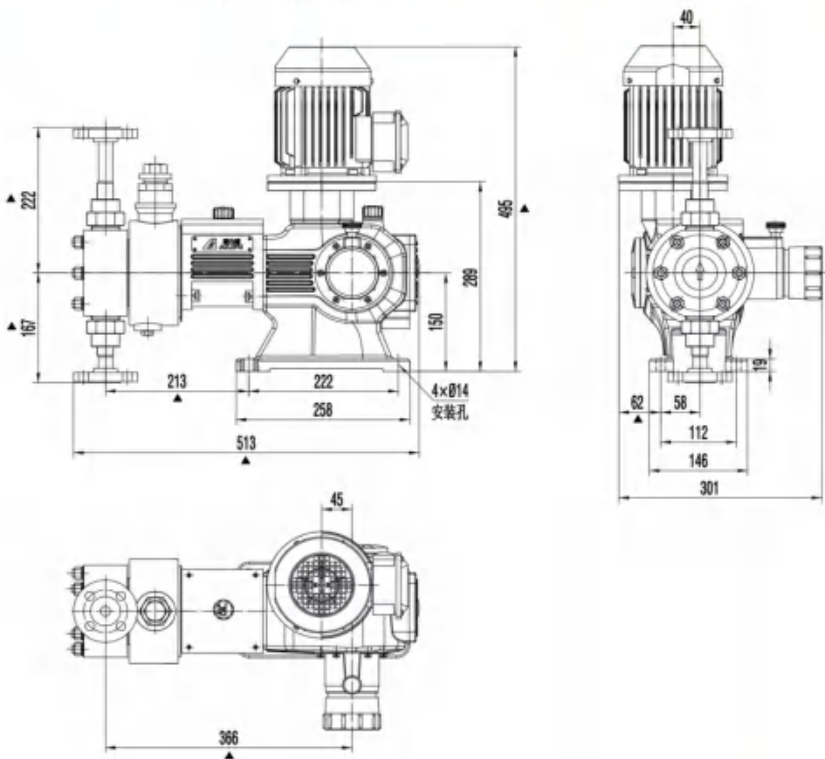
Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)	Weight (Kg)	
JYM25-160/40	160	40	25	80	96	7.5	DN20	540	
JYM25-250/32	250	32			120	11			
JYM25-320/32	320	32	96		11	DN25			
JYM25-320/16		16			7.5				
JYM25-400/25	400	25	120		11				7.5
JYM25-400/12.5		12.5			147				
JYM25-500/25	500	25	96		11		DN32		
JYM25-500/20		20			7.5				
JYM25-500/10	640	10	120		11	7.5			
JYM25-640/16		16			147				15
JYM25-640/8	800	8	96		11	DN40			
JYM25-800/16		16			7.5				
JYM25-800/12.5	800	12.5	120		11		7.5		
JYM25-800/6.3		6.3			147				15
JYM25-1000/10	1000	10	96		11		DN50		
JYM25-1000/5		5			7.5				
JYM25-1260/10	1260	10	120		11	7.5			
JYM25-1260/8		8			147				15
JYM25-1260/4	1260	4	96		11	DN65			
JYM25-1600/6.3		6.3			7.5				
JYM25-1600/3.2	1600	3.2	120		11		7.5		
JYM25-2000/8		8			150				15
JYM25-2000/5	2000	5	96		11		DN80		
JYM25-2000/2.5		2.5			7.5				
JYM25-2500/4	2500	4	120		11	7.5			
JYM25-2500/2		2			150				15
JYM25-3200/5	3200	5	96		11	DN100			
JYM25-3200/3.2		3.2			7.5				
JYM25-3200/1.6	4000	1.6	120		11		7.5		
JYM25-4000/2.5		2.5			150				15
JYM25-4000/1.3	5000	1.3	96		11		DN125		
JYM25-5000/3.2		3.2			7.5				
JYM25-5000/2	5000	2	120		11	7.5			
JYM25-5000/1		1			150				15
JYM25-6300/1.6	6300	1.6	96		11	DN150			
JYM25-6300/0.8		0.8			7.5				
JYM25-8000/2	8000	2	120		11		7.5		
JYM25-8000/1.25		1.25			150				15
JYM25-8000/0.63	10000	0.63	96		11		DN200		
JYM25-10000/1.6		1.6			7.5				
JYM25-10000/1.2	12500	1.2	120		11	7.5			
JYM25-10000/1.0		1.0			150				15
JYM25-10000/0.5	16000	0.5	96		11	DN250			
JYM25-12500/1.2		1.2			7.5				
JYM25-12500/0.8	20000	0.8	120		11		7.5		
JYM25-12500/0.4		0.4			150				15
JYM25-16000/0.8	16000	0.8	96		11		DN300		
JYM25-16000/0.4		0.4			7.5				
JYM25-20000/0.8	20000	0.8	120		11	7.5			
					150				15

Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Model	Rated flow rate (L/h)	Pressure (MPa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (Min-1)	Motor power (KW)	suction and discharge connection size (mm)
JYM50-280/40	280	40	25	100	120	15	DN25
JYM50-330/40	330	40			144	15	
JYM50-460/40	460	40	32		120	18.5	
JYM50-550/40	550	40			144	22	
JYM50-600/40	600	40	36		120	22	
JYM50-760/40	760	40	40		120	30	
JYM50-760/32		32				22	
JYM50-920/32	920	32			147	30	
JYM50-920/25		25				22	
JYM50-1250/25	1250	25	50		120	30	DN32
JYM50-1250/20		20				22	
JYM50-1600/20	1600	20			147	30	
JYM50-1600/16		16				22	
JYM50-2000/16	2000	16	63		120	30	DN40
JYM50-2000/12.5		12.5				22	
JYM50-2500/12.5	2500	12.5			147	30	
JYM50-2500/10		10				22	
JYM50-3200/10	3200	10	80		120	30	DN50
JYM50-3200/8		8				22	
JYM50-4000/8	4000	8			147	30	
JYM50-4000/6.3		6.3				22	
JYM50-5000/6.3	5000	6.3	100		120	30	DN65
JYM50-5000/5		5				22	
JYM50-6300/5	6300	5			147	30	
JYM50-6300/4		4				22	
JYM50-8000/4	8000	4	125		120	30	DN80
JYM50-8000/3.2		3.2				22	
JYM50-10000/3.2	10000	3.2			147	30	
JYM50-10000/2.5		2.5				22	
JYM50-12000/3.2	12000	3.2	140		147	37	DN100
JYM50-12000/2.5		2.5				30	
JYM50-12000/2		2				22	
JYM50-16000/2.5	16000	2.5			147	37	
JYM50-16000/2		2	30				
JYM50-16000/1.5		1.5	22				

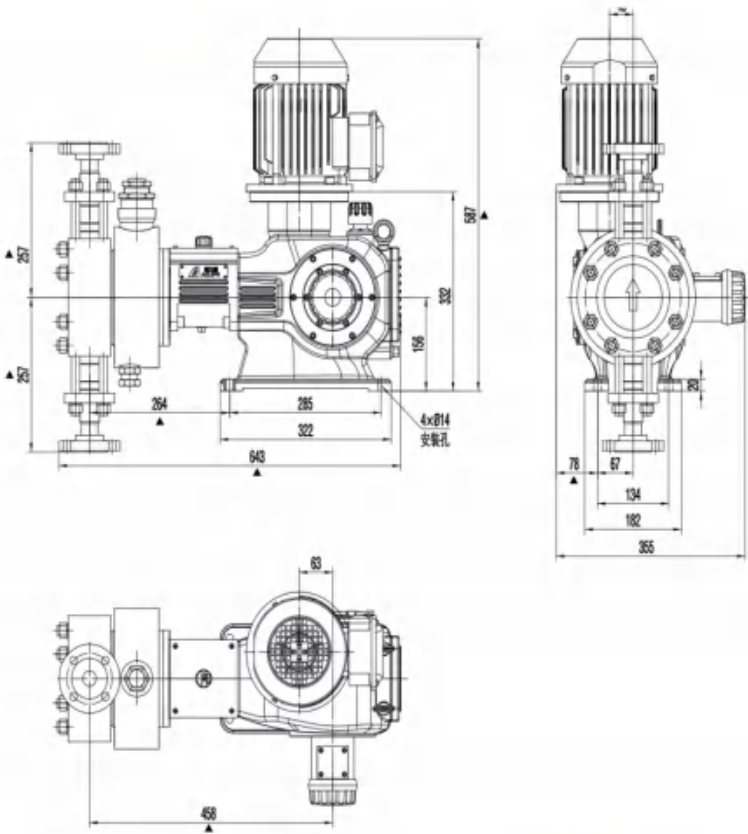
Note: 1. This pump can be combined in multiple connections, and the flow rate can be multiplied by the number of connections at the same pressure.
2. When the rated discharge pressure is higher than the maximum value in the table, please consult our company.

Outline Dimension and installation reference size



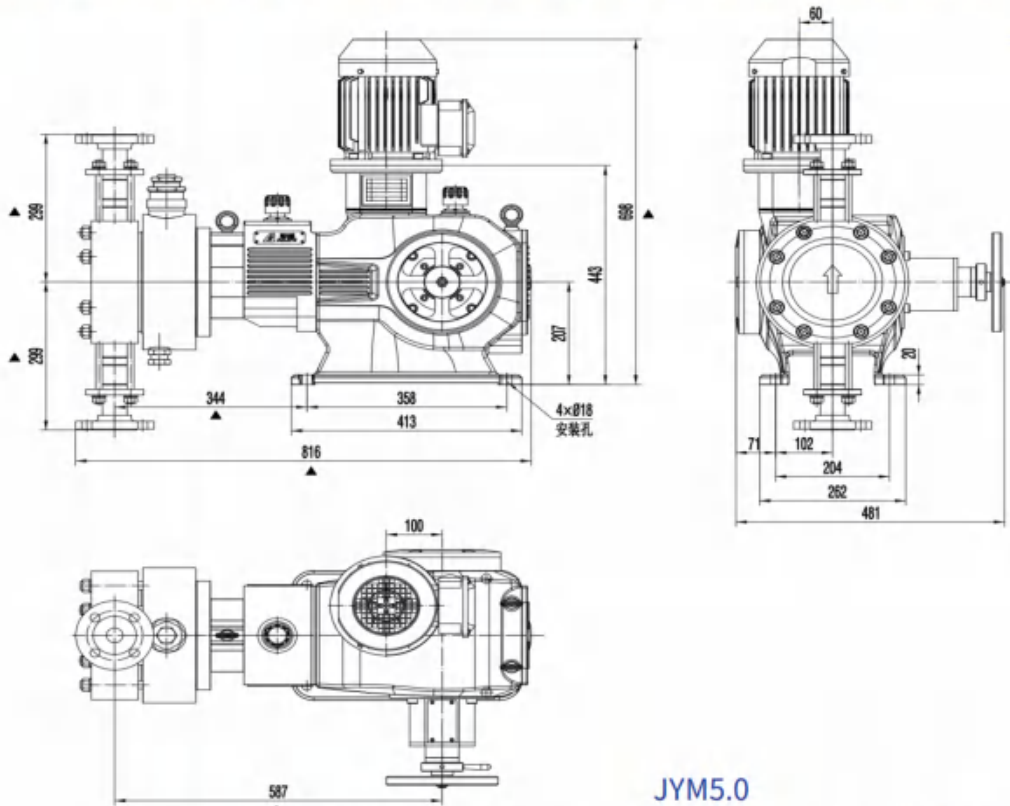
JYM1.6

The size with ‘△’ is the reference size. The specific size is shown in the design drawing

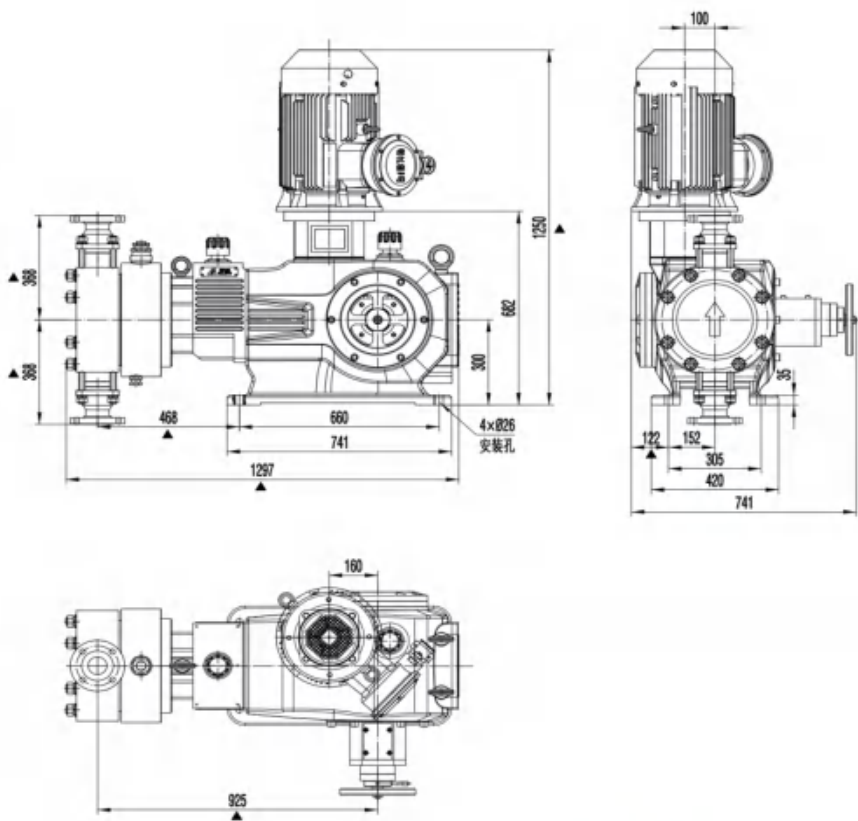


JYM3.0

Outline Dimension and installation reference size

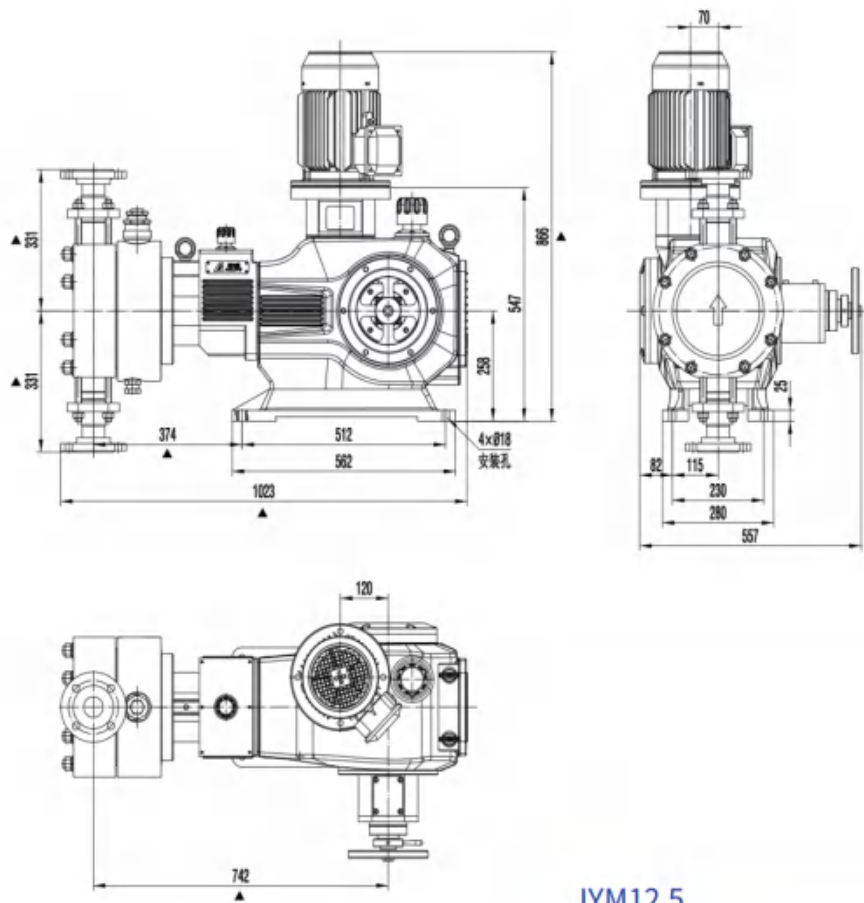


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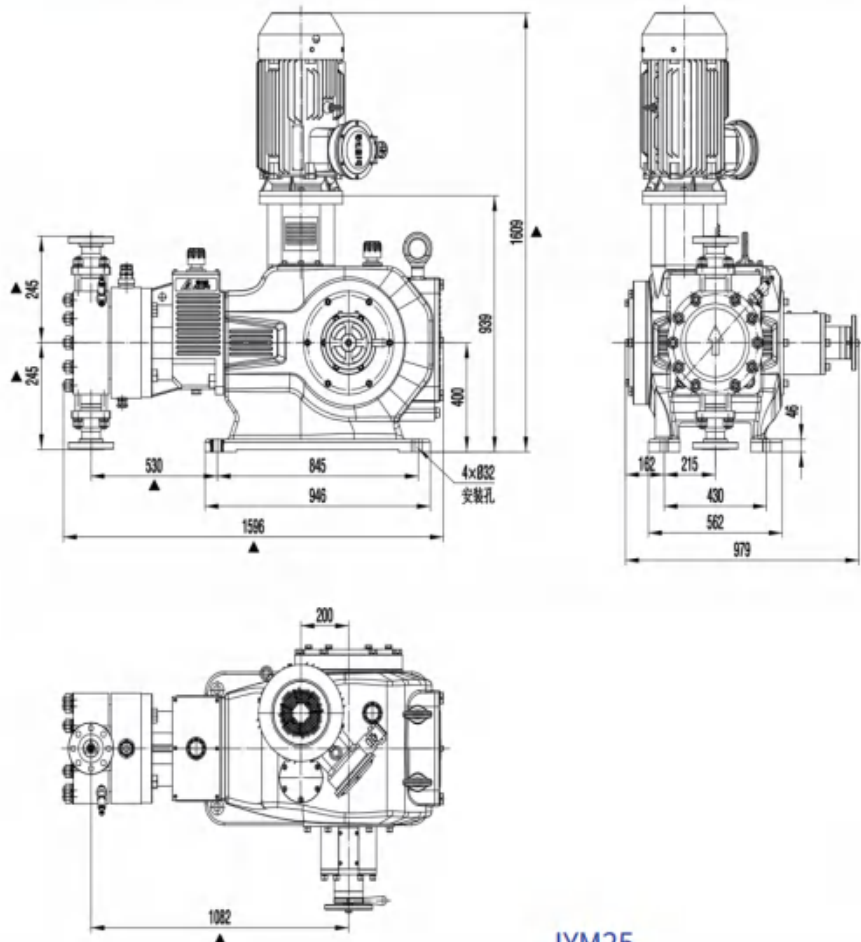


JYM25

The size with '▲' is the reference size. The specific size is shown in the design drawing



JYM12.5



JYM25



AILIPU

Mechanical diaphragm
metering pumps

Product Overview

The mechanical diaphragm metering pump is a diaphragm pump whose deflection and deformation of the diaphragm relies on mechanical direct drive. Mechanical diaphragm metering pumps are generally suitable for transporting liquids without solid particles at temperature of -15°C to 85°C and viscosity of 0.3~2000mm2 /s. The flow rate can be steplessly adjusted within the range of 0-100%. The static seal at the hydraulic end of the product has no leakage, simple structure, low maintenance cost, and good cost performance. The product is suitable for environmental protection, water treatment, pharmaceutical, paper making, new materials and other industries, and can transport corrosive slurry and dangerous chemicals.

Function

- 1、1.The flow rate control mode of the pump has manual control and automatic control. Automatic control mode can be achieved by frequency conversion or by installing a digital controller or stroke controller.
- 2.Parameter range: flow rate is 0.47~6000L/h; maximum working pressure is 1.2MPa; flow rate stability accuracy can be controlled within 1%.
- 3.Suction range capacity: ≤3m water column
- 4.No safety relief device, need to install safety valve in the pump outlet line.
- 5. Transporting flammable and explosive, strong corrosive, toxic and other dangerous chemicals, in order to prevent accidents caused by diaphragm rupture, can choose hydraulic end structure with double diaphragm rupture alarm device.

Hydraulic end wetted parts

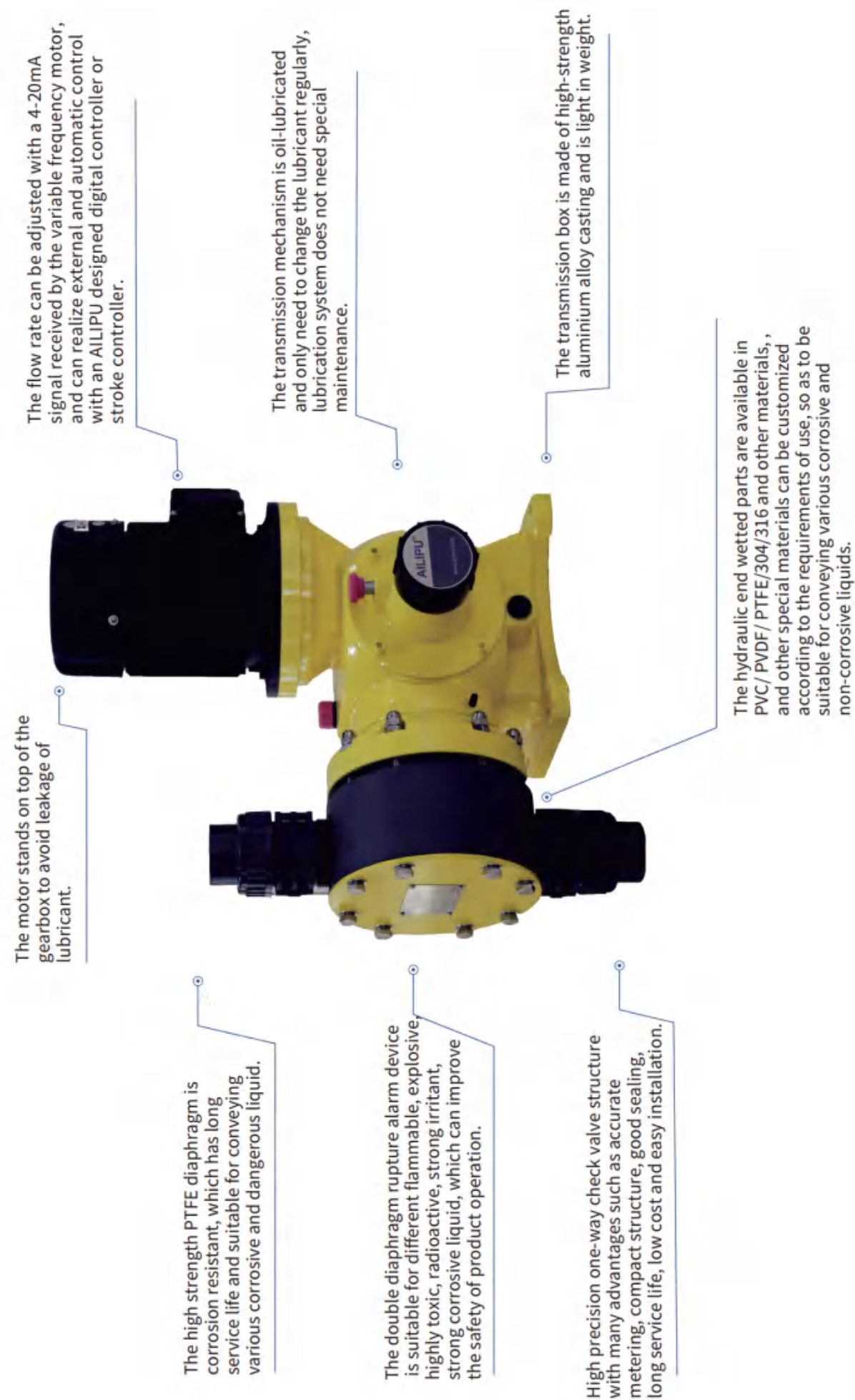
According to the characteristics of the transported chemicals, the hydraulic end wetted parts must meet the requirements of corrosion resistance.

Materials available: PVC, PVDF, PTFE, SS304, SS316L and other alloy materials (e.g. 20 alloy, 904L, titanium, Hastelloy, etc.).

Diaphragm material: PTFE or rubber compound PTFE.

J	Metering Pump	XM	FRAME	M WM WM-A (B) XM XM-A XM-A ZM-A DM DM-s	50	Rated Capacity L/H	1	Rated Capacity L/H	S	Pump Material S-304 L-316L C-Hastelloy C H-20Alloy T-Titanium Alloy P-pvc T-PTFE V-PVDF Q-Carbon Steel	H	Connection H-Union, weld Connection R-house connector F-Flange P-NPT Thread M-Metric Thread G-Taper Pipe Thread Q-Hard Pipe Socked T-Ferrule	K	Flow Regulation S-Manual D-Auto Stroke Controller K-Digital Controller	B	Motor B-Explosion Proof P-Variable Frequency BP-Explosion-Proof with Variable Frequency O-Standard	D	Pump Head D-Electrical Heating T- Heating Jacket N-High Viscosity	N	Diaphragm Rupture Alarm N-None YB-Standard Alarm YC-Pressure gauge YD-Sound and Light

Model Specification



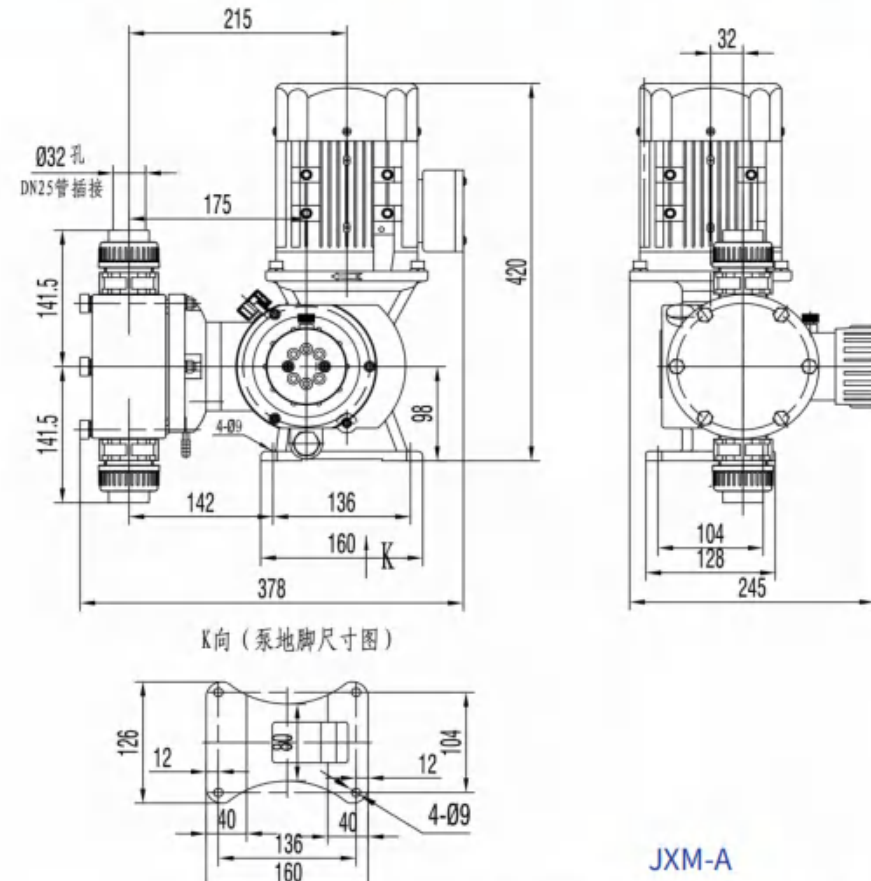
Selection parameters

Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Stroke (mm)	Pump speed (min ⁻¹)	Diaphragm specification (mm)	suction and discharge connection size (mm)	Motor power (kw)	Weight (KG)
JXM-A 2.25/1.2	2.25	1.2		36	φ63/36	DN8	220V/380V 0.37KW 1400RPM 3-50HZ IP55/F	18
JXM-A 4.5/1.2	4.5		1.2	72				
JXM-A 10/1.2	10			144				
JXM-A 22/1.2	22		4	72	φ82/45			
JXM-A 44/1.2	44			144				
JXM-A 85/1.0	85	1.0	6	72	φ110/70	DN15		
JXM-A 120/0.7	120	0.7	8	72				
JXM-A 170/0.7	170		6	72				
JXM-A 240/0.7	240		8	144				
JXM-A 315/0.5	315	0.5	10	180	φ116/80	DN25	0.55KW	
JXM-A 400/0.5	400							
JXM-A 500/0.5	500							

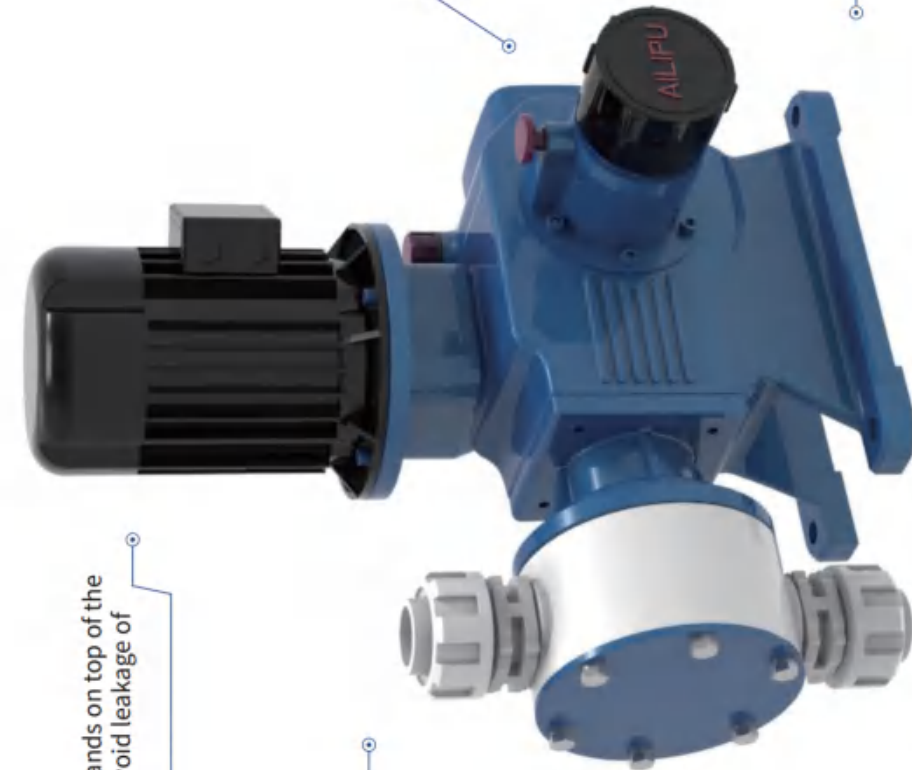
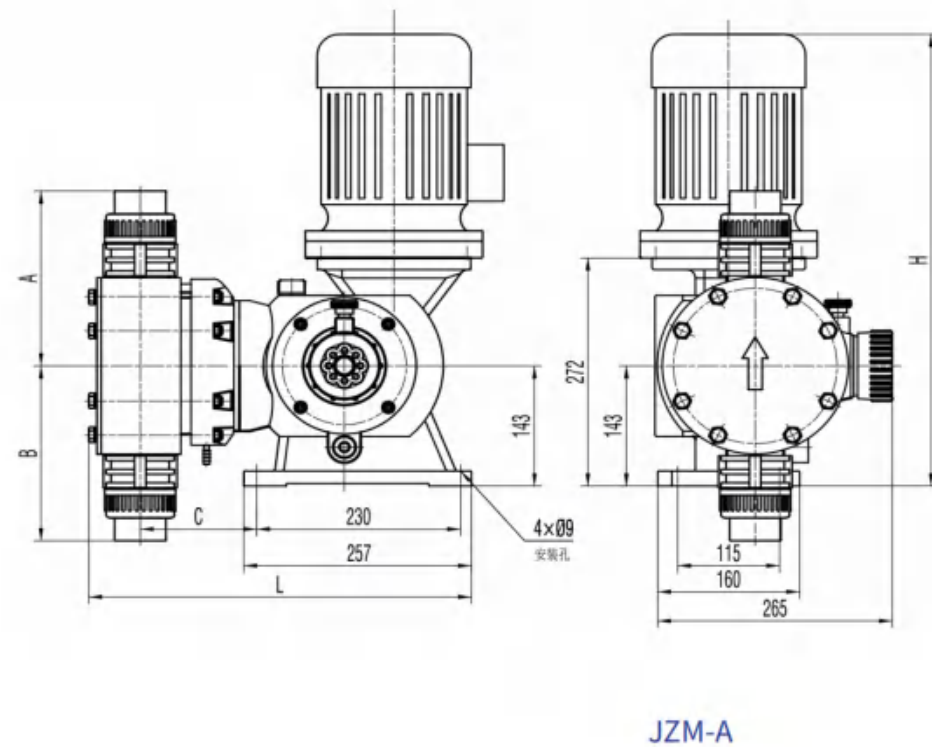
Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Stroke (mm)	Pump speed (min ⁻¹)	Diaphragm specification (mm)	suction and discharge connection size (mm)	Motor power (kw)	Weight (KG)
JZM-A 82/1	82	1.0	12	36	φ110/70	DN15	3ph- 220V/380V 0.55KW	30
JZM-A 167/1	167			72				
JZM-A 237/1	237			102		DN25	3ph- 220V/380V 0.75KW	
JZM-A 334/1	334			135				
JZM-A 410/1	410			180				
JZM-A 460/0.7	460	0.7		135	φ116/80	DN25	3ph- 220V/380V 0.75KW	
JZM-A 580/0.7	580			180				
JZM-A 656/0.35	656	0.35		102	φ162/115	DN40	1.1KW 1.5KW	
JZM-A 940/0.35	940			135				
JZM-A 1200/0.35	1200			180	45			
JZM-A 1500/0.3	1500	0.3		φ195/148				180
JZM-A 1800/0.3	1800	0.3						
JZM-A 2000/0.25	2000	0.25						

Note: The weight in the table is subject to the PVC pump head and standard motor. If you need other data, please consult with Ailipu

Outline Dimension and installation reference size



The size with '△' is the reference size. The specific size is shown in the design drawing



The motor stands on top of the gearbox to avoid leakage of lubricant.

Pump diaphragm: made of high strength PTFE, corrosion and ageing resistant, long service life. The use of double diaphragm rupture indication or remote alarm allows the metering pump to continue to operate even if the diaphragm ruptures, ensuring production continuity and providing sufficient time to replace diaphragm. Under normal operating conditions, the diaphragm life is over 3 years.

Flow accuracy: steady-state flow accuracy $\leq 1\%$, flow reproducibility and linearity $\leq 2\%$

A wide range of materials are available for the hydraulic end wetted parts.

Flow rate adjustment mechanism: use sleeve type slide shaft adjustment mechanism, good linearity of adjustment, strong bearing capacity, low noise and other characteristics.

Flow adjustment range: 0-100% adjustable; Adjustment method: manual adjustment, variable frequency adjustment, or adding numbers The controller and stroke controller achieve remote adjustment of the motor standing above the transmission box to remove any leakage of lubricating oil.

Pump casing material: HT250 cast iron casing is used, which is better than using aluminium casting casing, and the service life 20~30 years.



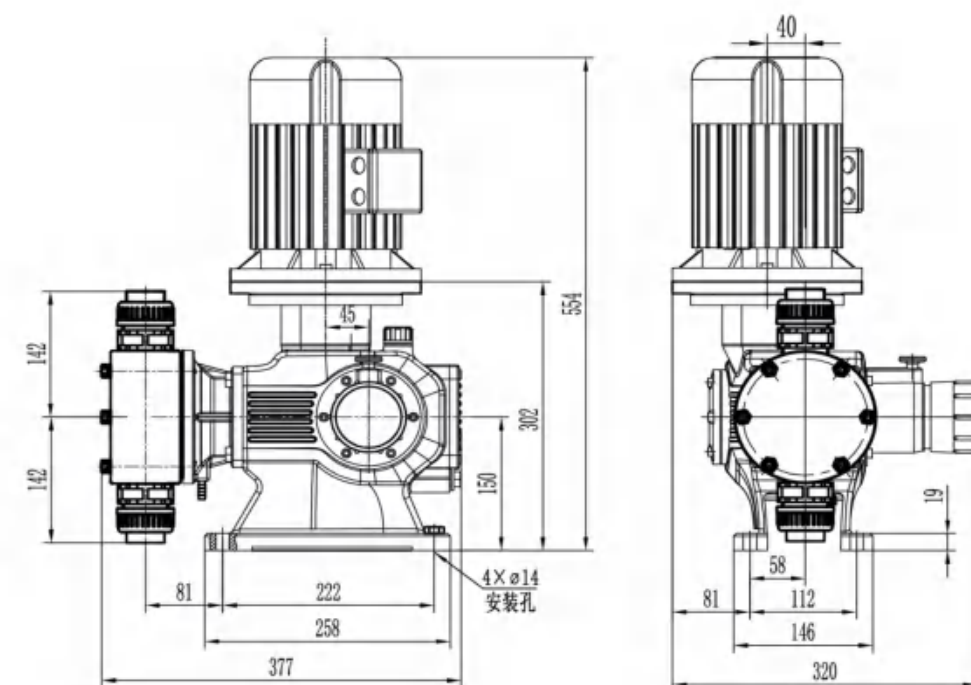
Selection parameters

Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Stroke (mm)	Pump speed (min ⁻¹)	Diaphragm specification (mm)	suction and discharge connection size (mm)	Motor power (kw)	Weight (KG)
JXMD-3.2/1.2	3.2	1.2	1.5	45	φ63/36	DN8	0.25	60
JXMD-4.5/1.2	4.5			58				
JXMD-8/1.2	8			106				
JXMD-10/1.2	10			135				
JXMD-15/1.2	15		4.5	45	φ82/45	DN15		
JXMD-20/1.2	20			58				
JXMD-36/1.2	36			106				
JXMD-46/1.2	46			135				
JXMD-58/1.0	58	1.0	7	45	φ110/70			
JXMD-75/1.0	75			58				
JXMD-100/0.8	100	0.8	9	58			DN25	
JXMD-138/0.7	138	0.7	7	106				
JXMD-175/0.7	175		9	106				
JXMD-225/0.6	225	0.6	9	135	0.55			
JXMD-300/0.6	300		11	106				
JXMD-380/0.5	380	0.5	11	135				
JXMD-415/0.5	415		12	135				
JXMD-500/0.4	500	0.4		168		0.75		
JXMD-500/0.5		0.5		168				
JXMD-600/0.4	600	0.4	14	168				

Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Stroke (mm)	Pump speed (min ⁻¹)	Diaphragm specification (mm)	suction and discharge connection size (mm)	Motor power (kw)	Weight (KG)	
JZMD-600/0.7	600	0.7	11.5	72	φ200/130	DN25	1.1	80-100	
JZMD-600/0.5		0.5					0.75		
JZMD-650/0.6	650	0.6	12.5				1.1		
JZMD-650/0.4		0.4					0.75		
JZMD-750/0.5	750	0.5	14				1.1		
JZMD-750/0.35		0.35					0.75		
JZMD-800/0.5	800	0.5	11.5	96		DN40	1.1		
JZMD-800/0.35		0.35					0.75		
JZMD-850/0.5	850	0.5	12.5				1.1		
JZMD-850/0.3		0.35					0.75		
JZMD-1000/0.4	1000	0.4	14				1.1		
JZMD-1000/0.25		0.25					0.75		
JZMD-1200/0.35	1200	0.35	11.5				140		1.1
JZMD-1500/0.3	1500	0.3	14						1.1
JZMD-1800/0.3	1800	0.3	16.5						1.5

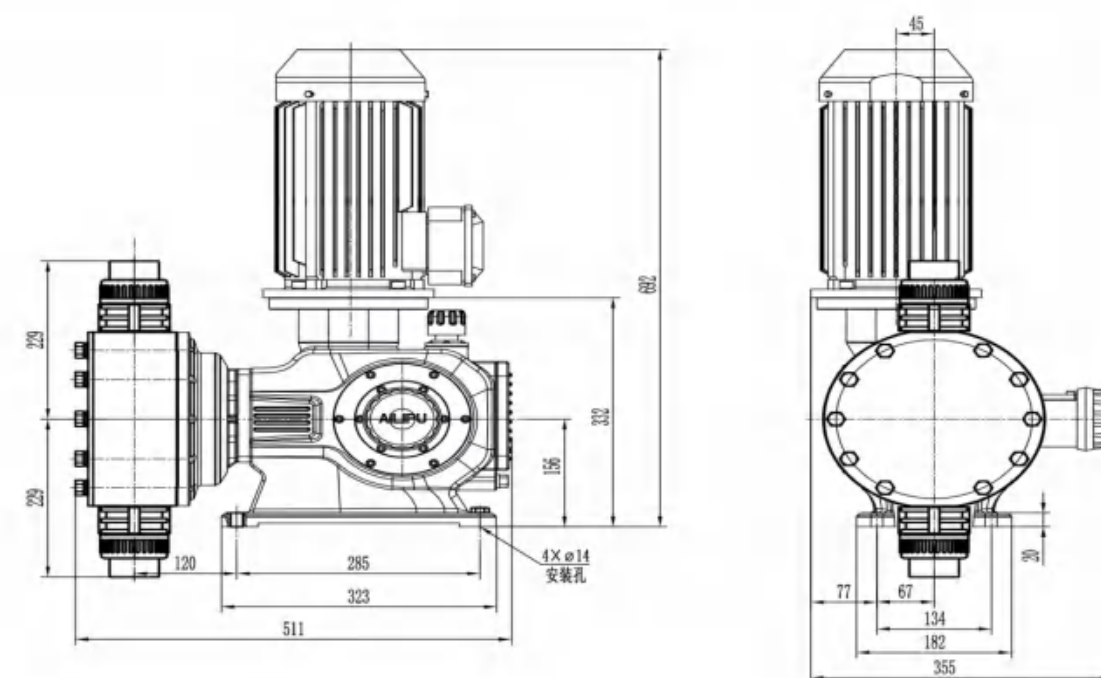
Note: The weight in the table is subject to the PVC pump head and standard motor. If you need other data, please consult with Ailipu

Outline Dimension and installation reference size



JXMD

The size with '△' is the reference size. The specific size is shown in the design drawing



JZMD

High transmission efficiency and low power loss. Under the condition of equal power configuration, the efficiency is more than 45% higher than that of the traditional worm gear reducer, which also improves the operating efficiency of the whole machine and has obvious energy-saving effect.

The use of fully enclosed grease lubrication solves the problem of oil leakage from the transmission box, as most traditional metering pumps use oil bath lubrication.

High flow stability and good regulation linearity.



Stroke length adjustment with high resolution and also self-locking.

The drive box body is made of short-cut glass fibre (GF) and inert filler (MD), additives and other raw materials in a one-off thermosetting moulding. It has excellent mechanical properties, heat resistance, dirt resistance, chemical resistance, low shrinkage and light stable colour, high specific gravity and high compressive strength, which is the first innovative application in the metering pump industry. As the transmission box is moulded from composite resin material, it has good dimensional consistency, light weight and good surface aesthetics.

The use of a spring-loaded double eccentric cam adjustment mechanism with "U" shaped movable brackets improves the smoothness of the diaphragm actuator operation, distributes the forces and increases the rigidity of the spindle under the same plunger force.



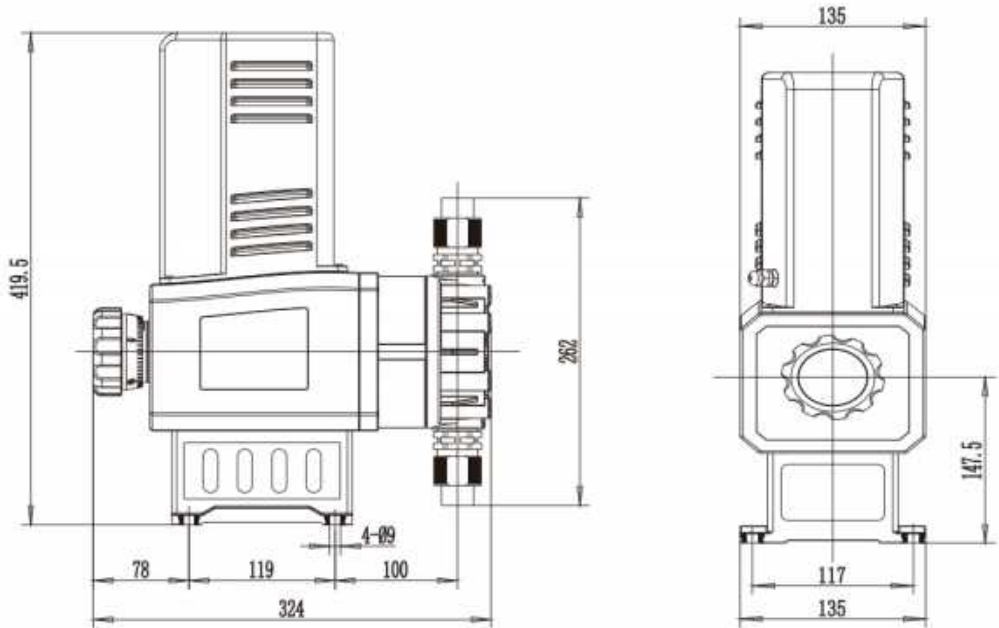
Selection parameters

Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Stroke (mm)	Pump speed (min ⁻¹)	Diaphragm specification (mm)	suction and discharge connection size (mm)	Motor power (KW)	Weight (KG)
JWM-C6/1.2	6	1.2	2	75	64	IN 15 OUT 9 PVC Reticulated tube	220v 40W	11.5
JWM-C12/1.2	12	1.2	2	75	64		3ph-380V 40W	
JWM-C24/1.2	24	1.2	4	75	64		220v 60W	
JWM-C30/1.2	30	1.2	5	75	64		3ph-380V 60W	12
JWM-C45/1.2	45	1.2	4	150	64		220v 90W	
JWM-C60/1.2	60	1.2	5	150	64	DN15 PVC Reticulated tube	3ph-380V 90W	
JWM-C80/0.9	80	0.9	4	108	94		220v 120W 3ph-380V 120W	13
JWM-C100/0.7	100	0.7	5	108	94			
JWM-C120/0.6	120	0.6	4	150	94			
JWM-C150/0.5	150	0.5	5	150	94			
JWM-C170/0.4	170	0.4	5	150	94			

Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Stroke (mm)	Pump speed (min ⁻¹)	Diaphragm specification (mm)	suction and discharge connection size (mm)	Motor power (KW)	Weight (KG)
JXM-C240/0.7	240	0.7	8	144	φ110/70	DN25	220v /380v 0.25kw 1400rpm 50Hz IP55/F	16
JXM-C315/0.5	315	0.5		144	φ116/80			
JXM-C400/0.5	400		10	144				
JXM-C500/0.5	500			180				

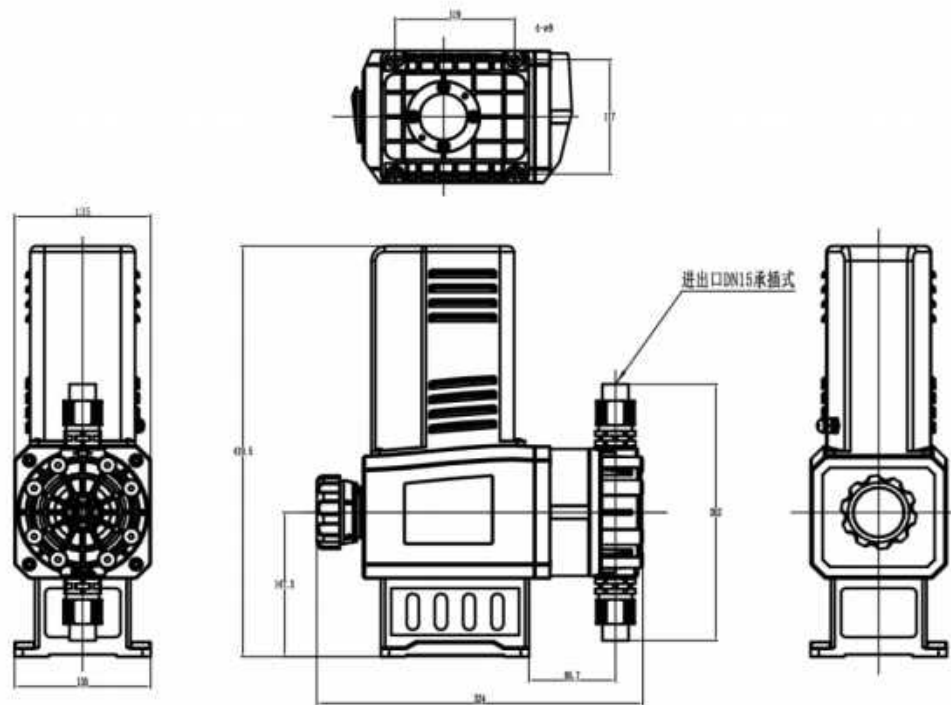
Note: The weight in the table is subject to the PVC pump head and standard motor. If you need other data, please consult with Ailipu

Outline Dimension and installation reference size



JWM-C

The size with ‘△’ is the reference size. The specific size is shown in the design drawing



JXM-C



Reinforced PTFE+rubber multi-layer diaphragm, completely leak-free and safe to use.

The pump head is available in PVDF/RPP/PVC/SUS304/SUS316 material.

Can be equipped with a digital controller for remote control.

Precise adjustment of the flow rate from 0 to 100% when the pump is running or stopped.

The pump body is made of high quality die-cast aluminium alloy and is light in weight. The motor is available in single-phase and three-phase, making it easy to match the power supply to different occasions.



Selection parameters

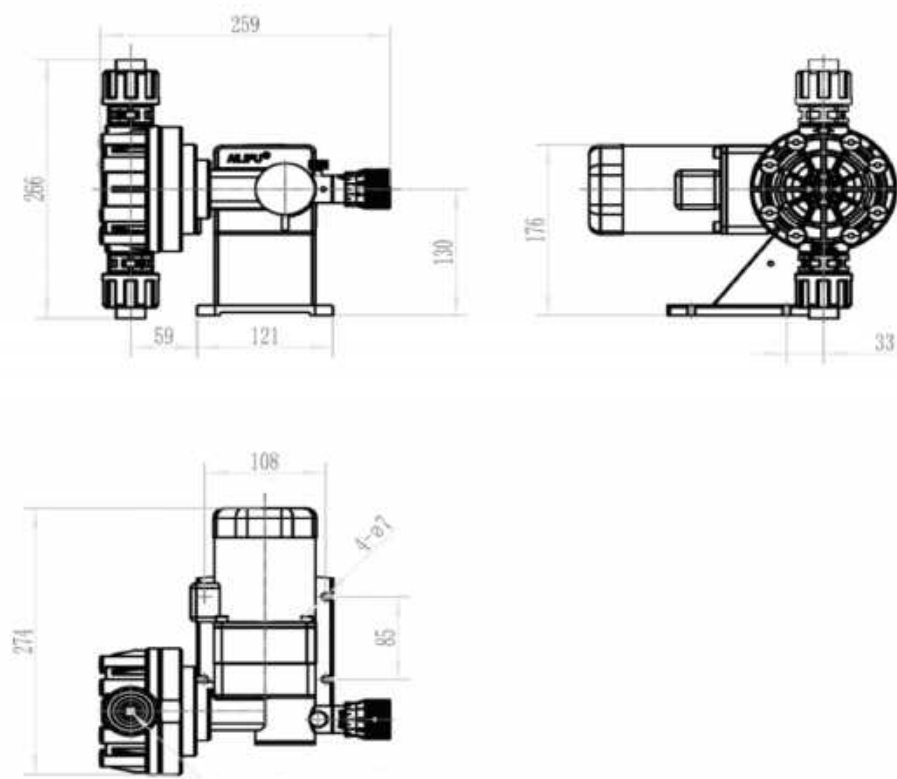
Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Stroke (mm)	Pump speed (min ⁻¹)	Diaphragm specification (mm)	suction and discharge connection size (mm)	Motor power (KW)	Weight (Kg)
JWM-B 6.5/1.0	6.5	1.0	2	75	φ 65	in: φ 9 out: φ 15 PVC Reticulated tube	220V,40W 3ph 380V, 50HZ,40W	7.3
JWM-B 12/1.0	12			135				
JWM-B 24/1.0	24		4	90			220V,60W 3ph- 380V, 50HZ,60W	7.5
JWM-B 32/1.0	32			108				
JWM-B 42/1.0	42			150				
JWM-B 60/0.6	60	0.6	5	150	φ 84	DN15 PVC Reticulated tube	220V,90W 3ph 380V, 50HZ,90W	8.5
JWM-B 60/1.0	60	1.0	4	108				
JWM-B 80/0.5	80			135				
JWM-B 100/0.5	100	0.5		150				
JWM-B 120/0.5	120		5	150				
JWM-B 150/0.3	150	0.3		150	φ 94			

Note: The weight in the table is subject to the PVC pump head and standard motor. If you need other data, please consult with Ailipu

Model	Rated flow rate (L/H)	Maximum pressure (Mpa)	Pump speed (min ⁻¹)	suction and discharge connection size (mm)	Motor power (W)	Weight (Kg)
JM-0.47/0.7	0.47	0.7	7	M19*1.5	15	3.36
JM-1.1/0.7	1.1		12			
JM-2.36/0.7	2.36		24			
JM-3.78/0.7	3.78		48			
JM-4.72/0.7	4.72					
JM-10.72/0.42	10.72	0.42	72			
JM-15.77/0.42	15.77					

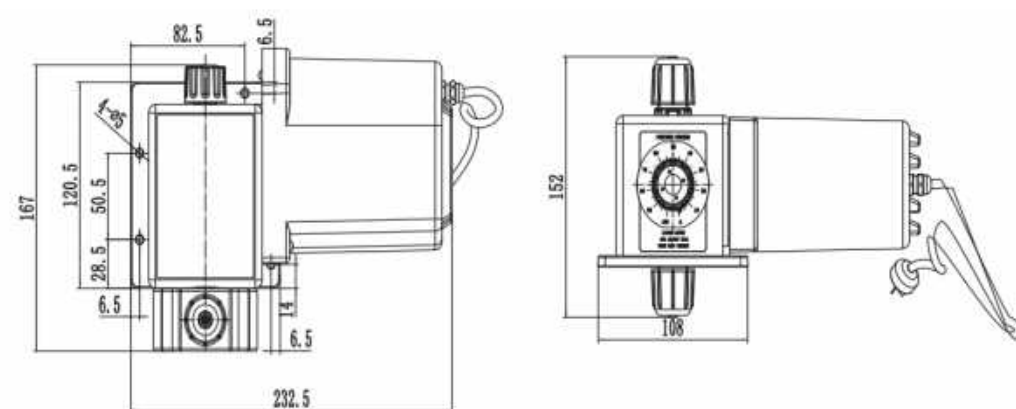
Note: The weight in the table is subject to the PVC pump head and standard motor. If you need other data, please consult with Ailipu

Outline Dimension and installation reference size



JWM-B

The size with '△' is the reference size. The specific size is shown in the design drawing



JM



Product Overview

Electromagnetic diaphragm metering pump is a type of diaphragm pump that is driven by an electromagnet to achieve cyclic deformation of the diaphragm. It is suitable for conveying liquids without solid particles at temperatures from -15°C to 85°C and viscosity from 0.3mm²/s to 200mm²/s under ambient conditions of 86KPa -106KPa, temperature from -20°C to 70°C and humidity from 30% to 95%RH. The flow rate can be steplessly adjusted within the range of 0-100%, the product is small in size and light in weight, no leakage, easy to maintain and has a good cost performance.

Product features

The product control mode has manual control and automatic control, and automatic control has analogue signal control and digital signal control.

Function

Power failure memory; low level alarm and stop; remote start/stop control; analogue signal adjustment; digital signal adjustment; RS485 interface communication for different power supply voltages 100-240V, 50-60Hz. Parameter: flow rate from 0.2 to 100L/H, working pressure from 2 to 20 bar.

Application

Wastewater treatment, electroplating, paper making, agriculture, chemical irrigation, ternary catalysis, power plant circulating water treatment, circuit boards, swimming pools, chemical dosing, municipal wastewater treatment.

Hydraulic end wetted parts

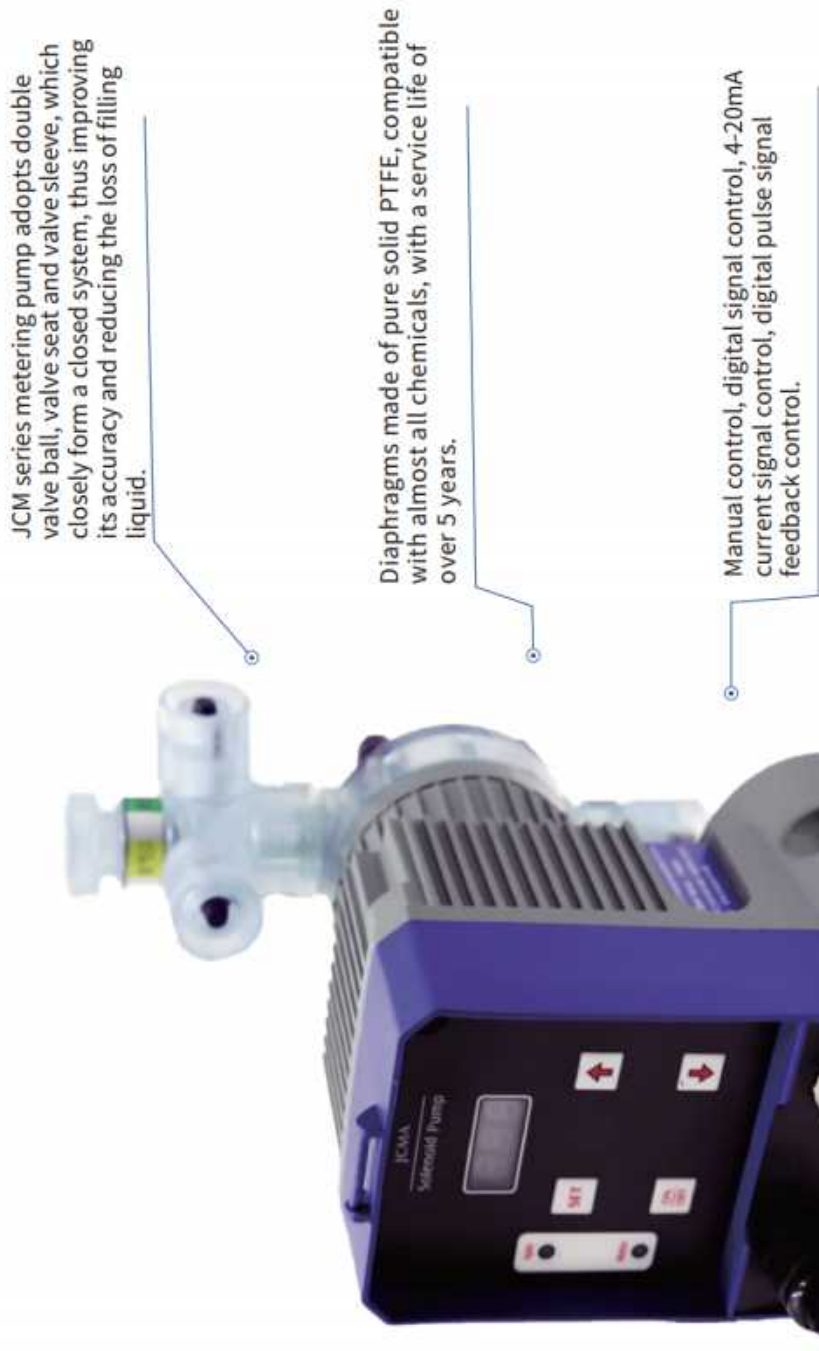
According to the characteristics of the transported chemicals, the hydraulic end wetted parts must meet the requirements of corrosion resistance.
Materials available: PVC, PVDF, PTFE, SS304, SS316L and other alloy materials (e.g. 20 alloy, 904L, titanium, Hastelloy, etc.).
Diaphragm material: PTFE or rubber compound PTFE.

AILIPU

Electromagnetic diaphragm
metering pumps

CM		Electromagnetic diaphragm	
FRAME	A		
	A		
	B		
	C		
	D		
		36	Pump head chamber diameter
		2.5	Rated Capacity L/H
		10	Rated Pressure Bar
		S	
		control function	
		S-manual C-Manual/Remote:YY-liquid level alarm; Q - Remote start stop; C-pulse input; F-Pulse feedback H-Manual/Remote;YY-liquid level alarm; Q - Remote start stop; H-4-20mA X-Special customization features	
		P	
		Pump Material	
		S-304 L-316L P-pvc V-PVD	
		R	
		Connection	
		R-hose connector Q-hose connector	

Model Specification



JCM series electromagnetic pump protection level is IP65, which can operate safely under harsh working conditions.

Stroke frequencies of up to 400 strokes per minute, high calculation accuracy and effective elimination of pulsation effects.

High stability, the pump can work stably in the voltage range of 100-240V, 50-60HZ universal.

JCM series metering pump adopts double valve ball, valve seat and valve sleeve, which closely form a closed system, thus improving its accuracy and reducing the loss of filling liquid.

Diaphragms made of pure solid PTFE, compatible with almost all chemicals, with a service life of over 5 years.

Manual control, digital signal control, 4-20mA current signal control, digital pulse signal feedback control.

 Selection parameters

JCMAZ Series

Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Material
JCMAZ36-2.5/10	2.5	10	In4 Out9.5	PVC
JCMAZ36-1.5/12	1.5	12	In4 Out9.5	PVC
JCMAZ36-0.8/15	0.8	15	In4 Out9.5	PVC

JCMAY Series

Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Material
JCMAY36-3.5/7	3.5	7	In5.5 Out9	PVC
JCMAY36-2.5/10	2.5	10	In5.5 Out9	PVC
JCMAY36-1.5/12	1.5	12	In5.5 Out9	PVC
JCMAY36-0.8/15	0.8	15	In5.5 Out9	PVC

Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Imported pipe material (mm)	Material
JCMAZ45-15/1.5	15	1.5	In5.5 Out9.5	In4 Out9.5	PVC
JCMAZ45-11/2	11	2	In5.5 Out9.5	In4 Out9.5	PVC
JCMAZ45-7.0/3.5	7.0	3.5	In5.5 Out9.5	In4 Out9.5	PVC
JCMAZ45-3.5/7.0	3.5	7	In5.5 Out9.5	In4 Out9.5	PVC

Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Material
JCMAY45-15/1	15	1	In5.5 Out9	PVC
JCMAY45-11/2	11	2	In5.5 Out9	PVC
JCMAY45-7/3.5	7	3.5	In5.5 Out9	PVC

JCMC Series

JCMB Series

Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Material	Material
JCMB45-3/15	3	15	In5.5 Out9.5	PVC	PE
JCMB45-5/10	5	10	In5.5 Out9.5	PVC	PE
JCMB45-10/5	10	5	In5.5 Out9.5	PVC	PE

Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Imported pipe material	Outlet pipe material
JCMC-5/20	5	20	In6 Out9	PVC	PE
JCMC-10/10	10	10	In6 Out9	PVC	PE
JCMC-15/7	15	7	In6 Out9	PVC	PE
JCMC-30/3.5	30	3.5	In9 Out15	PVC	PVC mesh tube
JCMC-70/1.5	70	1.5	In9 Out15	PVC	PVC mesh tube

Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Material	Material
JCMB55-15/3.2	15	3.2	In5.5 Out9.5	PVC	PE
JCMB55-20/2.5	20	2.5	In5.5 Out9.5	PVC	PE
JCMB55-25/2.0	25	2.0	In5.5 Out9.5	PVC	PE

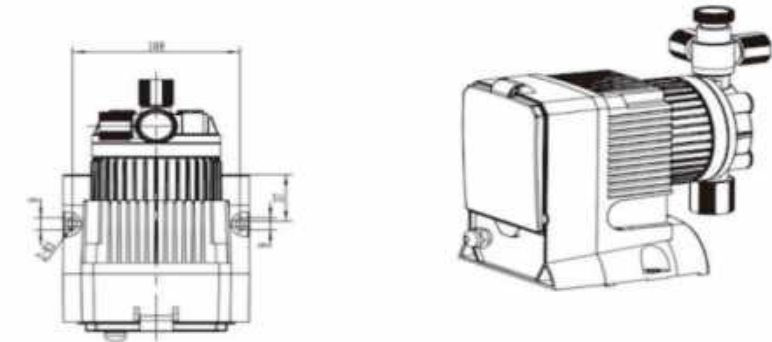
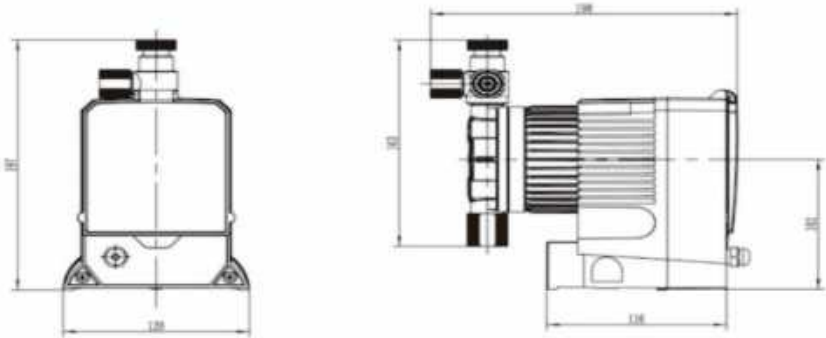
Model	Rated flow rate (L/H)	Maximum pressure (Bar)	Pipe Diameter (mm)	Imported pipe material	Outlet pipe material
JCMF/JCM4-15/10	15	10	In6 Out9	PVC	PE
JCMF/JCM4-30/5	30	5	In9 Out15	PVC	PVC mesh tube
JCMF/JCM4-95/1.5	95	1.5	In9 Out15	PVC	PVC mesh tube

Outline Dimension and installation reference size

Model	Rated flow rate L/H	Maximum pressure Bar	Import and export pipe diameter mm	Material
JCM-FX36-2.5/10	2.5	10	In4Out9.5	In PVC:2m Out PE :2.5m
JCM-FX36-1.5/12	1.5	12	In4Out9.5	
JCM-FX36-0.8/15	0.8	15	In4Out9.5	

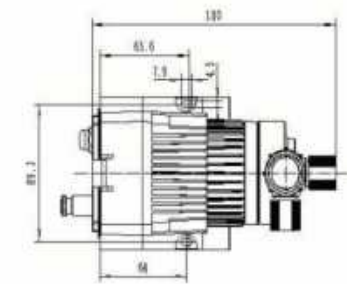
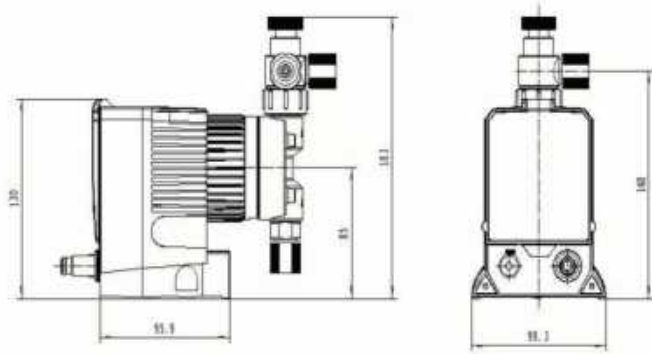
Model	Rated flow rate L/H	Maximum pressure Bar	export Pipe Diameter mm	Imported pipe material mm	Material
JCM-FX4-15/1.5	15	1.5	In5.5Out9.5	In4Out9.5	In PVC:2m Out PE :2.5m
JCM-FX45-11/2	11	2	In5.5Out9.5	In4Out9.5	
JCM-FX45-7/3.5	7	3.5	In5.5Out9.5	In4Out9.5	
JCM-FX45-3.5/7	3.5	7	In5.5Out9.5	In4Out9.5	

Model	Rated flow rate L/H	Maximum pressure Bar	export Pipe Diameter mm	Imported pipe material mm	Material
JCM-FX55-18/4	15	1.5	In5.5Out9.5	PVC	In PVC:2m Out PE :2.5m
JCM-FX55-25/3	11	2	In5.5Out9.5	PVC	
JCM-FX55-35/2	7	3.5	In5.5Out9.5	PVC	

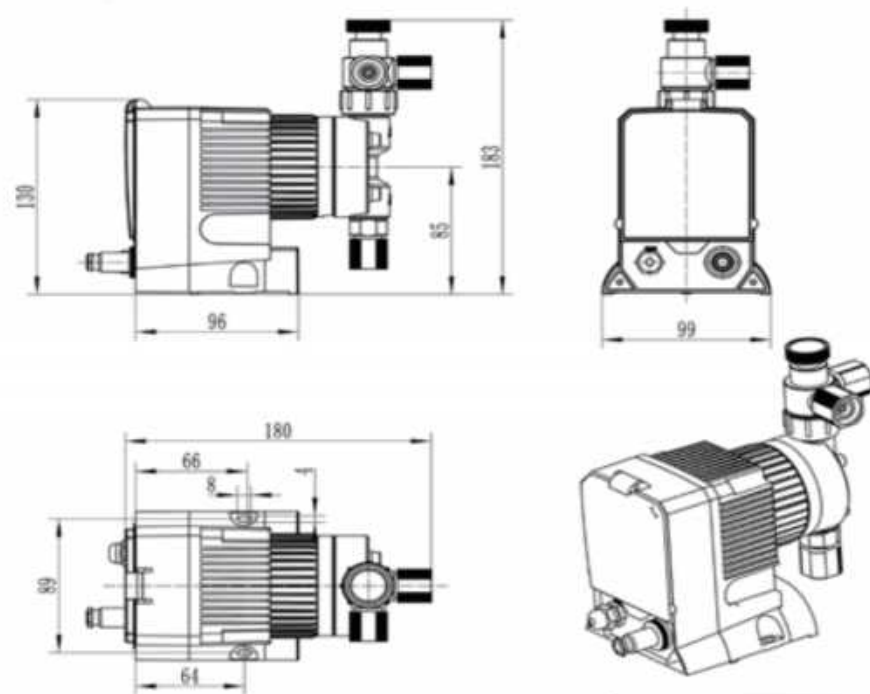


JCMAZ

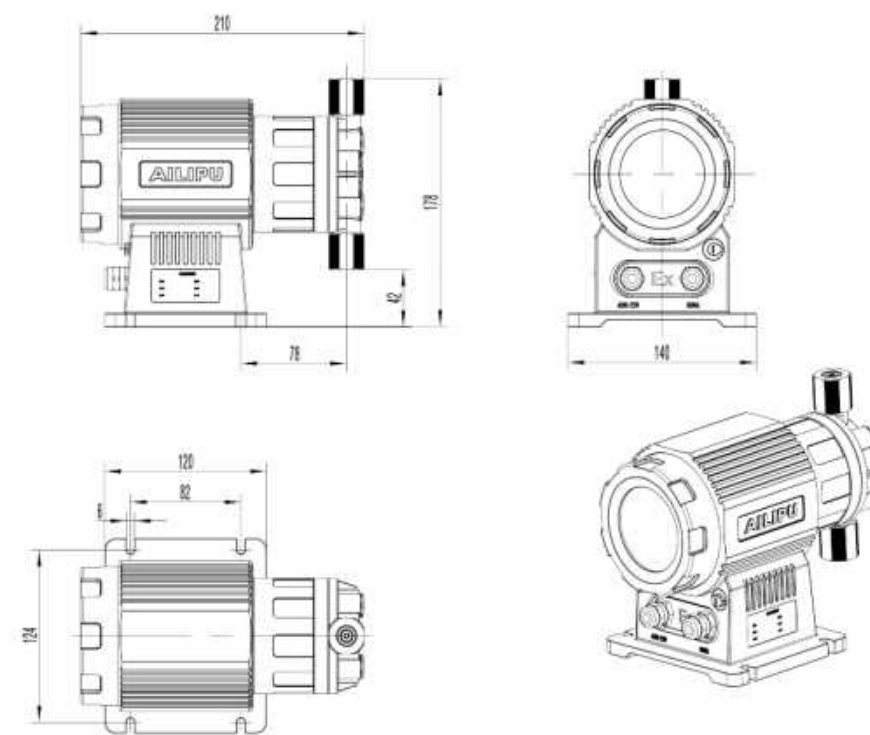
The size with '△' is the reference size. The specific size is shown in the design drawing



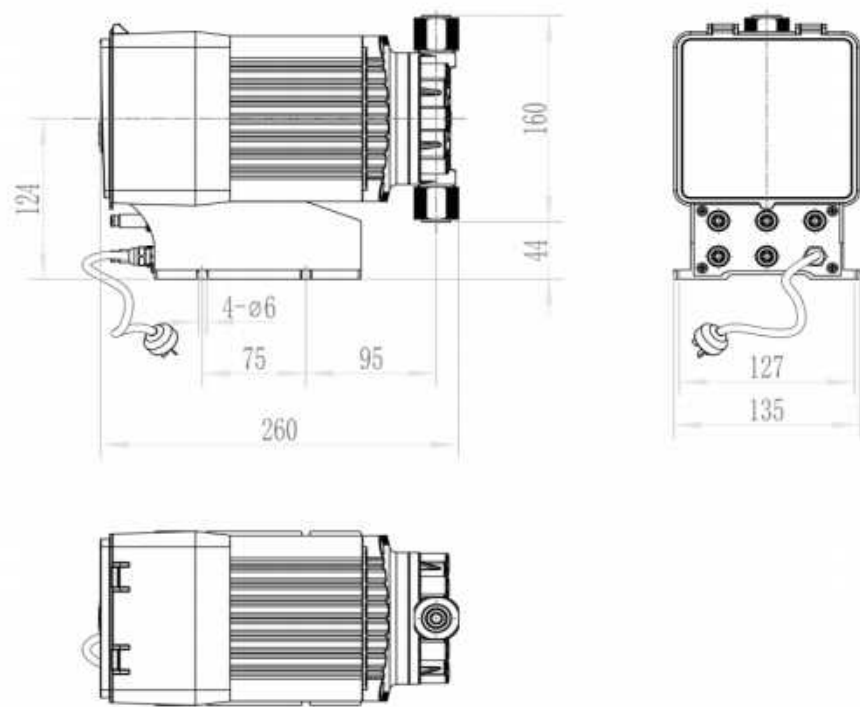
JCMAY



JCMB



JCM-FX



JCMC



Product Overview

It is developed base on our three-cylinder reciprocating pump and hydraulic diaphragm metering pump. The series of products have a high flow rate, high working pressure and low pulsation, while the structure incorporates the characteristics of hydraulic diaphragm metering pumps, with the advantages of diaphragm limiting oil replenishment, double diaphragm rupture alarm, uniform flow without sedimentation and no leakage, etc. The low-speed diaphragm pump can convey slurry containing particles (such as mineral slurry, water and coal slurry, mud, etc.), also known as "slurry pump"; the medium-speed diaphragm pump can be used for oil extraction, petrochemical, electric power, chemical and other industries of sewage transport and corrosive and non-corrosive medium, and can be made into water injection pumps, pressure testing pumps, acid pumps, alkali pumps, salt pumps, liquid pumps, alkali pump, salt pump, liquid ammonia pump, ammonium methyl (ammonium carbamate) pump, injection poly pump, injection alcohol pump, industrial pump, agricultural pump, high temperature pump, low temperature pump, etc.

The three-plunger high-pressure diaphragm pump is generally supplied as a three-cylinder diaphragm pump, but can also be in the form of a single cylinder or multiple. This brochure provides parameters in the form of three cylinders.

The pump set mainly consists of the transmission box, diaphragm pump head, reducer, frequency conversion motor, safety valve, damper, lubricating oil pump and monitoring control system. This pump changes the pump speed by adjusting the frequency converter to achieve stepless adjustment of the pump flow rate and meet the process flow requirements. The drive unit, reducer and motor are connected by couplings and assembled separately on a steel base for easy lifting and installation.

Driving end

- 1.The transmission box of the small power pump and the reducer box community, using double helical gear reducer mechanism for deceleration, while the high power pump is split with the reducer.
- 2.The transmission box is cast in high grade cast iron, which has good shock absorption and deformation resistance.
- 3.The crankshaft is made of high-strength alloy forging and multi-point support, which has good bending and fatigue resistance and strong load-bearing capacity.
- 4.Small power pump connecting rod size head shaft tile adopts Bachmann bearing alloy, small head bushing adopts high-strength durable copper-based alloy; high power pump connecting rod size head all adopt rolling bearing, with maintenance-free, long operating life and other characteristics.
- 5.The connecting rod friction pair and crosshead adopt oil pressure type forced lubrication.

Hydraulic End

- 1.The cylinder body and cylinder head of the hydraulic end are made of forged parts to avoid leakage within the high pressure body.
- 2.Using a new three-valve structure: the hydraulic oil cavity is set up with a limit oil replenishment mechanism to achieve timely automatic replenishment, not only ensures the fullness of the hydraulic oil in the hydraulic cavity, but also to avoid over-filling, to prevent hydraulic shock, to effectively ensure the balance of forces on both sides of the diaphragm, to improve the operating life of the diaphragm, and has a suction range performance; deflation safety valve is a combination of deflation valve and safety valve, deflation valve can make the hydraulic oil in the hydraulic cavity to maintain pure liquid to improve the volumetric efficiency of the pump, and the safety valve is for the process pipeline once there is an obstruction and automatically open to protect the pump and pipeline safety.
3. Using the process pressure, the diaphragm rupture pressure-sensitive alarm technology is realized, and after the diaphragm rupture, an alarm signal is issued within 2s to stop in time, or switch the backup pump. Avoid hydraulic oil into the pipeline, resulting in pollution and accidents.

4.The plunger seal adopts piston ring seal instead of packing seal, which is changed from wearing parts to regular parts, and the service life can reach more than 3 years, avoiding the replacement of packing. The piston cylinder sleeve is obtained by high temperature quenching and fine grinding processing, which improves the service life of sealing components.

5.The piston is connected to the crosshead with an intermediate joint, so that the piston ring can be easily disassembled and installed without removing the cylinder sleeve, and the connecting rod adopts the card plate type connection.

6.The pump head and valve parts are equipped with different materials to meet the special requirements of strong corrosion and high abrasion.

Lubrication system

1.The transmission box is equipped with an independent lubrication system, and the gear pump provides sufficient lubricating oil to ensure the lubrication effect of the moving parts.

2.The oil pipeline is equipped with pressure gauge, safety valve and coarse and fine filter to ensure clean and efficient lubricating oil.

Reducers

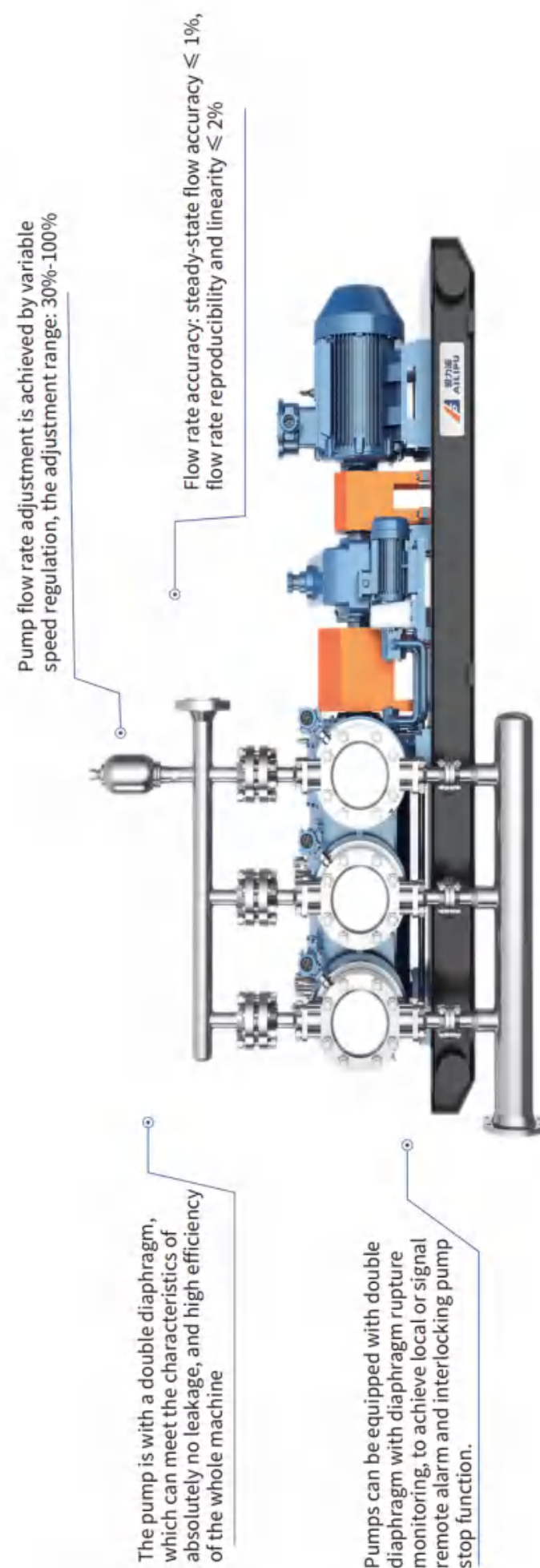
Choose hardened gear reducer with high transmission efficiency and low running noise. Small power is generally cooled by natural air, while high power reducers are generally cooled by softened water.

Main interlocking control items for equipment

1、Motor start/stop/variable frequency adjustment; 2、Diaphragm rupture alarm detection; 3、Lube oil pump (main pump, reducer) start/stop; 4、Lubricant oil temperature, oil pressure detection; 5、Reducer oil temperature, oil pressure detection; 6、Local/remote operation.

Ordering Instructions

When ordering, please specify the physical and chemical properties of the medium to be dosed (e.g. medium name, working pressure, medium density, viscosity, concentration, particle content, operating temperature, PH value, medium vaporization pressure, etc.).



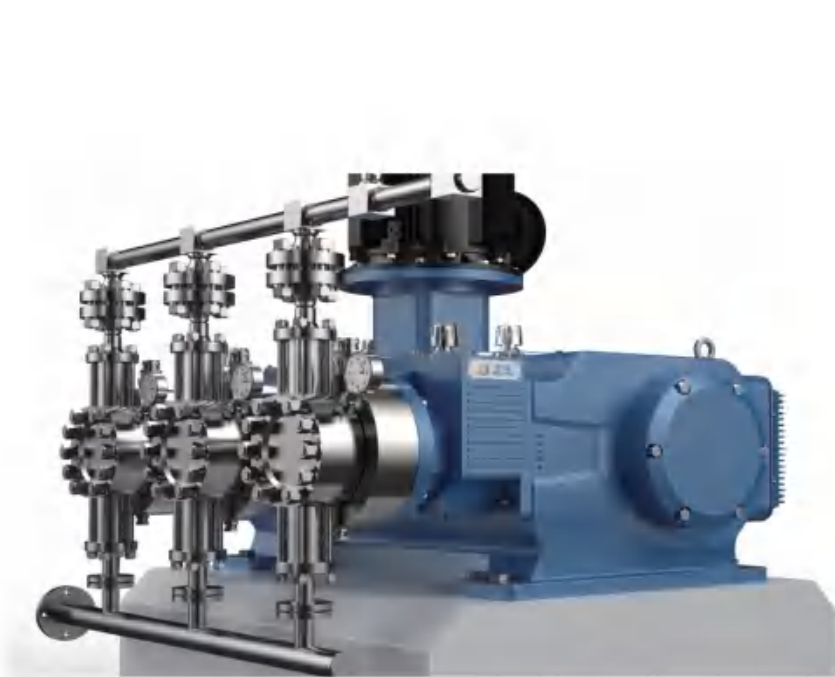
Selection parameters

Model	Rated flow rate (m³/h)	Pressure (Mpa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (min ⁻¹)	Motor power (KW)	suction and discharge connection size (mm)
3WM95-1.4/20	1.4	20	32	95	116	15	In DN50, out DN32
3WM95-1.6/20	1.6	20			131.2	15	In DN65, out DN32
3WM95-1.8/20	1.8	20			147	15	In DN65, out DN40
3WM95-2.2/20	2.2	18	36		182.5	18.5	In DN65, out DN40
3WM95-1.8/18	1.8	18			116	15	In DN65, out DN40
3WM95-2.0/18	2.0	18			131.2	15	In DN65, out DN40
3WM95-2.3/18	2.3	18			147	18.5	In DN65, out DN40
3WM95-2.8/18	2.8	16	40		182.5	18.5	In DN80, out DN40
3WM95-2.2/16	2.2	16			116	15	In DN65, out DN40
3WM95-2.5/16	2.5	16			131.2	18.5	In DN65, out DN40
3WM95-2.8/16	2.8	16			147	18.5	In DN80, out DN40
3WM95-3.5/13	3.5	13	45		182.5	18.5	In DN80, out DN50
3WM95-2.8/15	2.8	15			116	18.5	In DN80, out DN40
3WM95-3.2/15	3.2	15			131.2	22	In DN80, out DN50
3WM95-3.6/15	3.6	15			147	22	In DN80, out DN50
3WM95-4.4/12	4.4	12	50		182.5	22	In DN100, out DN50
3WM95-3.5/12.5	3.5	12.5			116.6	18.5	In DN80, out DN50
3WM95-4.0/12.5	4.0	12.5			131.2	22	In DN100, out DN50
3WM95-4.4/12	4.4	12			147	22	In DN100, out DN50
3WM95-5.5/8	5.5	8	55		182.5	22	In DN100, out DN50
3WM95-4.2/10	4.2	10			116.6	18.5	In DN100, out DN50
3WM95-4.8/10	4.8	10			131.2	22	In DN100, out DN50
3WM95-5.4/8	5.4	8			147	18.5	In DN100, out DN65
3WM95-6.7/8	6.7	6.3	63		182.5	18.5	In DN125, out DN65
3WM95-5.5/8	5.5	8			116.6	18.5	In DN100, out DN65
3WM95-6.3/8	6.3	8			131.2	22	In DN125, out DN65
3WM95-7.0/6.3	7.0	6.3			147	18.5	In DN125, out DN65
3WM95-8.8/5	8.8	5	70		182.5	18.5	In DN125, out DN80
3WM95-6.9/6.3	6.9	6.3			116.6	18.5	In DN125, out DN65
3WM95-7.8/6.3	7.8	6.3			131.2	22	In DN125, out DN80
3WM95-8.7/5	8.7	5				147	18.5

Model	Rated flow rate (m³/h)	Pressure (Mpa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (min ⁻¹)	Motor power (KW)	suction and discharge connection size (mm)
3WM120-1.9/40	1.9	40	32	120	123.1	30	In DN65, out DN40
3WM120-2.2/40	2.2	40			138.5	37	In DN65, out DN40
3WM120-2.9/30	2.9	30			185	37	In DN80, out DN50
3WM120-3.0/30	3.0	30	40		123.1	37	In DN65, out DN40
3WM120-3.4/30	3.4	30			138.5	37	In DN80, out DN50
3WM120-4.5/25	4.5	25			185	45	In DN100, out DN50
3WM120-4.7/20	4.7	20	50		123.1	37	In DN100, out DN65
3WM120-5.3/20	5.3	20			138.5	45	In DN100, out DN50
3WM120-7.0/16	7.0	16			185	45	In DN125, out DN65
3WM120-7.5/12.5	7.5	12.5	63		123.1	37	In DN125, out DN80
3WM120-8.4/12.5	8.4	12.5			138.5	45	In DN125, out DN80
3WM120-11.2/10	11.2	10			185	45	In DN125, out DN80
3WM120-9.2/10	9.2	10	70		123.1	37	In DN150, out DN80
3WM120-10.4/10	10.4	10			138.5	45	In DN150, out DN80
3WM120-13.8/8	13.8	8			185	45	In DN150, out DN100
3WM120-12/8	12	8	80		123.1	37	In DN150, out DN100
3WM120-13.5/8	13.5	8			138.5	45	In DN150, out DN100
3WM120-15.2/6.3	15.2	6.3			123.1	37	In DN200, out DN100
3WM120-17.2/6.3	17.2	6.3	90		138.5	45	In DN200, out DN125

Model	Rated flow rate (m ³ /h)	Pressure (Mpa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (min ⁻¹)	Motor power (KW)	suction and discharge connection size (mm)
3WM125-2.7/40	2.7	40	40	125	105	30	In DN80, out DN50
3WM125-3.0/40	3.0	40			118.4	55	In DN80, out DN50
3WM125-3.8/40	3.8	40			148	75	In DN100, out DN50
3WM125-2.3/25	2.3	25	50		58.8 *	30	In DN80, out DN50
3WM125-4.6/25	4.6	25			118.4	55	In DN100, out DN65
3WM125-5.8/25	5.8	25			148	75	In DN125, out DN65
3WM125-3.7/16	3.7	16	63		58.8 *	30	In DN100, out DN50
3WM125-7.5/16	7.5	16			118.4	55	In DN125, out DN80
3WM125-9.3/16	9.3	16			148	75	In DN150, out DN80
3WM125-6/10	6	10	80		58.8 *	30	In DN125, out DN65
3WM125-12/10	12	10			118.4	55	In DN150, out DN100
3WM125-15/10	15	10			148	75	In DN200, out DN100
3WM125-7.6/8	7.6	8	90		58.8 *	30	In DN125, out DN80
3WM125-15/8	15	8			118.4	55	In DN150, out DN100
3WM125-19/8	19	8			148	75	In DN200, out DN125
3WM125-9/6.3	9	6.3	100		58.8 *	30	In DN150, out DN80
3WM125-19/6.3	19	6.3			118.4	55	In DN200, out DN125
3WM125-24/6.3	24	6.3			148	75	In DN250, out DN125
3WM125-15/4	15	4	125		58.8 *	30	In DN200, out DN100
3WM125-30/4	30	4			118.4	55	In DN250, out DN150
3WM125-37/4	37	4			148	75	In DN300, out DN150
3WM125-18/3.2	18	3.2	140		58.8 *	30	In DN200, out DN125
3WM125-37/3.2	37	3.2			118.4	55	In DN300, out DN150
3WM125-46/3.2	46	3.2			148	75	In DN300, out DN200
3WM125-24/2.5	24	2.5	160		58.8 *	30	In DN250, out DN125
3WM125-49/2.5	49	2.5			118.4	55	In DN300, out DN200
3WM125-61/2.5	61	2.5			148	75	In DN350, out DN200

Model	Rated flow rate (m ³ /h)	Pressure (Mpa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (min ⁻¹)	Motor power (KW)	suction and discharge connection size (mm)
3WM160-4.8/50	4.8	50	50	160	92.5	110	In DN100, out DN65
3WM160-6.2/50	6.2				119.2	132	In DN125, out DN65
3WM160-6.9/50	6.9				132	160	In DN125, out DN65
3WM160-7.5/32	7.5	32	63		92.5	110	In DN125, out DN80
3WM160-9.5/32	9.5				119.2	132	In DN150, out DN80
3WM160-11/32	11				132	160	In DN150, out DN80
3WM160-7.7/20	7.7	20	80		59.2*	75	In DN125, out DN80
3WM160-12/20	12				92.5	110	In DN150, out DN100
3WM160-15/20	15				119.2	160	In DN200, out DN100
3WM160-17/20	17	16	90		132	160	In DN200, out DN100
3WM160-10/16	10				59.2 *	75	In DN150, out DN80
3WM160-15/16	15				92.5	110	In DN200, out DN100
3WM160-20/16	20	12.5	100		119.2	160	In DN200, out DN125
3WM160-22/16	22				132	160	In DN200, out DN125
3WM160-12/12.5	12				59.2 *	75	In DN200, out DN125
3WM160-19/12.5	19	8	125		92.5	110	In DN250, out DN150
3WM160-24/12.5	24				119.2	132	In DN300, out DN150
3WM160-27/12.5	27				132	160	In DN250, out DN150
3WM160-15/8	19	6.3	140		59.2 *	75	In DN250, out DN125
3WM160-30/8	30				92.5	110	In DN300, out DN150
3WM160-39/8	39				119.2	132	In DN300, out DN150
3WM160-43/8	43	5	160		132	160	In DN300, out DN200
3WM160-24/6.3	24				59.2 *	75	In DN250, out DN125
3WM160-37/6.3	37				92.5	110	In DN300, out DN200
3WM160-48/6.3	48	5	160		119.2	132	In DN300, out DN200
3WM160-53/6.3	53				132	160	In DN300, out DN200
3WM160-31/5	31				59.2 *	75	In DN250, out DN150
3WM160-49/5	49	5	160		92.5	110	In DN300, out DN200
3WM160-63/5	63				119.2	132	In DN350, out DN200
3WM160-70/5	70				132	160	In DN350, out DN200



Model	Rated flow rate (m ³ /h)	Pressure (Mpa)	Plunger Diameter (mm)	Stroke (mm)	Pump speed (min ⁻¹)	Motor power (KW)	suction and discharge connection size (mm)
3WM190-9/50	9	50	63	190	92.5	200	I n DN125, o u t DN80
3WM190-12/50	12				119.2	250	I n DN150, o u t DN100
3WM190-13/50	13				132	280	I n DN150, o u t DN100
3WM190-14/32	14	32	80		92.5	200	I n DN200, o u t DN100
3WM190-18/32	18				119.2	250	I n DN150, o u t DN80
3WM190-20/32	20				132	280	I n DN150, o u t DN80
3WM190-12/25	12	25	90		59.2*	132	I n DN150, o u t DN100
3WM190-18/25	18				92.5	200	I n DN200, o u t DN125
3WM190-23/25	23				119.2	250	I n DN250, o u t DN125
3WM190-26/25	26				132	280	I n DN250, o u t DN125
3WM190-14/20	14	20	100		59.2 *	132	I n DN200, o u t DN100
3WM190-22/20	22				92.5	200	I n DN200, o u t DN100
3WM190-29/20	29				119.2	250	I n DN250, o u t DN150
3WM190-32/20	32				132	280	I n DN250, o u t DN150
3WM190-22/12.5	22	12.5	125		59.2 *	132	I n DN200, o u t DN125
3WM190-35/12.5	35				92.5	200	I n DN250, o u t DN150
3WM190-45/12.5	45				119.2	250	I n DN300, o u t DN150
3WM190-50/12.5	50				132	280	I n DN250, o u t DN150
3WM190-28/10	28	10	140		59.2 *	132	I n DN250, o u t DN150
3WM190-44/10	44				92.5	200	I n DN300, o u t DN200
3WM190-57/10	57				119.2	250	I n DN350, o u t DN200
3WM190-63/10	63				132	280	I n DN350, o u t DN200
3WM190-37/8	37	8	160		59.2 *	132	I n DN300, o u t DN150
3WM190-58/8	58				92.5	200	I n DN350, o u t DN200
3WM190-75/8	75				119.2	250	I n DN400, o u t DN250
3WM190-83/8	83				132	280	I n DN400, o u t DN250
3WM190-46/6.3	46	6.3	180		59.2 *	132	I n DN300, o u t DN200
3WM190-72/6.3	72				92.5	200	I n DN350, o u t DN200
3WM190-93/6.3	93				119.2	250	I n DN450, o u t DN250
3WM190-103/6.3	103				132	280	I n DN450, o u t DN250
3WM190-58/5	58	5	200		59.2 *	132	I n DN350, o u t DN200
3WM190-90/5	90				92.5	200	I n DN400, o u t DN250
3WM190-115/5	115				119.2	250	I n DN500, o u t DN300
3WM190-128/5	128				132	280	I n DN500, o u t DN300



AILIPU

Low-Boiling Foam Injection Pump

Product Overview

This series of metering pumps is mainly used in the production process of XPS panels. It is a key equipment for accurately quantitatively injecting low-boiling foam such as CO2, freon, alcohols, and alkanes into the extruder system. The injection pumps are available in two types: plunger metering pumps and diaphragm metering pumps. The flow rate can be adjusted by manually turning the handwheel or using frequency conversion speed regulation. To smoothen the output flow pulsation, multi-connection metering pump (double pump, triple pump) solutions are commonly employed.

Product Features

1. Plunger injection pump
 - ◇ The plunger is made of high-hardness ceramic material, which is a wear-resistant part instead of a regular part, with a service life of more than 5 years. Due to the high hardness of the material, it has low wear and effectively improves the service life of the packing.
 - ◇ The plunger seal uses a double-channel seal structure, and the packing adopts a lip-shaped seal. Under high pressure, the sealing lips closely contact the plunger to achieve good self-sealing and seal wear repair functions, improving the reliability of the plunger seal.
 - ◇ The pump head body is equipped with a cooling jacket. By circulating a cooling fluid through the jacket, it can effectively avoid the vaporization effect of low-boiling foam on the extruder due to environmental temperature and friction between the plunger and the packing, thereby improving the stability of pump flow delivery.
 - ◇ High-precision non-return valves at both ends of the pump intake and strict valve component seal testing methods ensure the accuracy of pump flow measurement.
2. Hydraulic diaphragm injection pump
 - ◇ Diaphragm pumps can achieve zero leakage. When producing foam with environmentally harmful ingredients, it is necessary to consider using diaphragm pumps to effectively avoid the leakage of the foam and its harm to the environment.
 - ◇ The plunger seal structure of the diaphragm pump adopts a piston ring seal, which has self-sealing and wear repair functions. This change from a traditional packing sealing surface to a piston ring seal makes the packing a wear-resistant part, eliminating the need for replacement within 3 years.
 - ◇ As a small-flow high-pressure diaphragm pump, due to the small volume change of the plunger in each stroke, the diaphragm deflection is also small. In addition, there is leakage at each sealed part under high pressure, which may easily lead to reduced cell volume factor and unstable flow phenomenon. To address this issue, this series of hydraulic diaphragm metering pumps use spring force to forcibly reset the diaphragm, maintaining constant diaphragm deflection deformation, which helps improve cell volume efficiency and ensures stable pump flow delivery.
 - ◇ The valve components are processed by high-precision machine tools and subjected to strict seal testing methods, enhancing the reliability of pump valve sealing. In terms of structural design, the gasket between valve parts is removed to use conical hard seals, which not only effectively avoid damage to the valve gasket caused by high pressure or disassembly of the valve but also help control consistent opening and closing lift of each valve ball, ensuring stable flow accuracy. Furthermore, in the design of valve seat structure, valve holes can be used on both sides. Even if one side of the valve hole fails due to wear and seal failure, the valve seat can be replaced, thus extending the service life of one-way valve by twice and providing excellent convenience and operating economy.
 - ◇ The hydraulic chamber of the pump is equipped with an air release relief valve and automatic oil replenishment valve to ensure full filling of hydraulic oil in the diaphragm cavity of the pump, improve stability of pump flow delivery, and prevent overpressure operation due to blocked outlet pipelines, achieving automatic pressure relief and effectively protecting the safe operation of the pump and pipeline.
 - ◇ With bubble detection and alarm function, it enhances the operational safety of the pump. Bubble detection devices can choose different types: 1) display of local pressure gauge; 2) display of local pressure gauge + signal long transmission (configure pressure switch for remote switching of switch quantity signal, configure pressure transmitter for remote transmission of 4-20mA analog signal), signal transmission to DCS system for alarm or interlocking stoppage; 3) field pressure display and acoustic and visual alarm.



Selection parameters

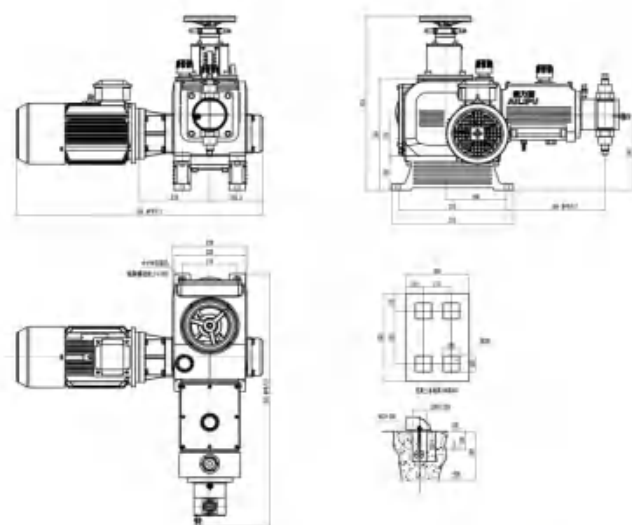
Model	Rated flow rate (L/h)	Theoretic Flow (L/h)	Discharge pressure (MPa)	Plunger Diameter (mm)	Trip (mm)	Pump Speed (min ⁻¹)	Power (KW)	Inlet and outlet diameter of each pump (mm)	Coolant interface	weight (Kg)
JYM5.0X-18/35	18	30	35	12	26	170	2.2	DN6, valve F7	G1/2 internal thread	120
JYM5.0X-25/30	25	40.8	30	14						
JYM5.0X-30/25	30	53.3	25	16						
2JYM5.0X-36/35	36	60	35	12	26	170	3	DN6, valve F7	G1/2 internal thread	200
2JYM5.0X-50/30	50	81.6	30	14						
2JYM5.0X-60/25	60	106.6	25	16						
3JYM5.0X-54/35	54	90	35	12	26	170	4	DN6, valve F7	G1/2 internal thread	300
3JYM5.0X-72/30	72	122.4	30	14						
3JYM5.0X-90/25	90	159.9	25	16						

Model	Rated flow rate (L/h)	Theoretic Flow (L/h)	Discharge pressure (MPa)	Plunger Diameter (mm)	Trip (mm)	Pump Speed (min ⁻¹)	Power (KW)	Inlet and outlet diameter of each pump (mm)	Coolant interface	weight (Kg)
J5.0X-27/35	27	30	35	12	26	170	2.2	DN6, valve F7 G3/8 external thread valve F8	G1/4 external thread	120
J5.0X-36/30	36	40.8	30	14						
J5.0X-45/25	45	53.3	25	16						
2J5.0X-54/35	54	60	35	12	26	170	3	DN6, valve F7 G3/8 external thread valve F8	G1/4 external thread	200
2J5.0X-72/30	72	81.6	30	14						
2J5.0X-90/25	90	106.6	25	16						
3J5.0X-80/35	80	90	35	12	26	170	4	DN6, valve F7 G3/8 external thread valve F8	G1/4 external thread	300
3J5.0X-110/30	110	122.4	30	14						
3J5.0X-140/25	140	159.9	25	16						

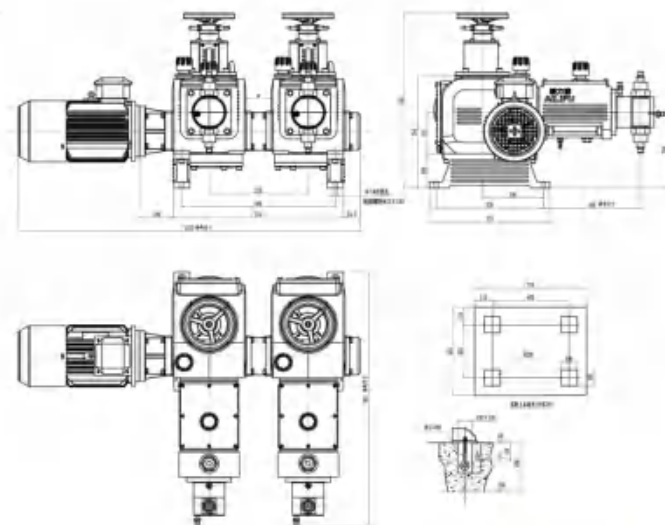
Model	Rated flow rate (L/h)	Theoretic Flow (L/h)	Discharge pressure (MPa)	Plunger Diameter (mm)	Trip (mm)	Pump Speed (min ⁻¹)	Power (KW)	Inlet and outlet diameter of each pump (mm)	Coolant interface	weight (Kg)
JYM5.0D-30/35	30	49.9	35	14	32	169	3	DN6, valve F7	G1/2 internal thread	200
JYM5.0D-40/30	40	65.2	30	16						
JYM5.0D-50/25	50	82.5	25	18						
2JYM5.0D-60/35	60	99.8	35	14	32	169	3	DN6, valve F7	G1/2 internal thread	350
2JYM5.0D-80/30	80	130.3	30	16						
2JYM5.0D-100/25	100	165	25	18						
3JYM5.0D-90/35	90	149.7	35	14	32	169	4	DN6, valve F7	G1/2 internal thread	500
3JYM5.0D-120/30	120	196.6	30	16						
3JYM5.0D-150/25	150	247.5	25	18						

Model	Rated flow rate (L/h)	Theoretic Flow (L/h)	Discharge pressure (MPa)	Plunger Diameter (mm)	Trip (mm)	Pump Speed (min ⁻¹)	Power (KW)	Inlet and outlet diameter of each pump (mm)	Coolant interface	weight (Kg)
J5.0D-32/35	32	36.7	35	12	32	169	3	DN6, valve F7 G3/8 external thread valve F8	G1/4 external thread	200
J5.0D-44/30	44	49.9	30	14						
J5.0D-58/25	58	65.2	25	16						
J5.0D-70/20	70	82.5	35	18	32	169	3	DN6, valve F7 G3/8 external thread valve F8	G1/4 external thread	350
2J5.0D-63/35	63	73.4	30	12						
2J5.0D-85/30	85	99.8	25	14						
2J5.0D-85/30	110	130.3	35	16	32	169	4	DN6, valve F7 G3/8 external thread valve F8	G1/4 external thread	500
2J5.0D-140/20	140	165	30	18						
3J5.0D-96/35	96	110.1	25	12						
3J5.0D-130/30	130	149.7	30	14	32	169	4	DN6, valve F7 G3/8 external thread valve F8	G1/4 external thread	500
3J5.0D-170/25	170	196.6	25	16						
3J5.0D-210/20	210	247.5	20	18						

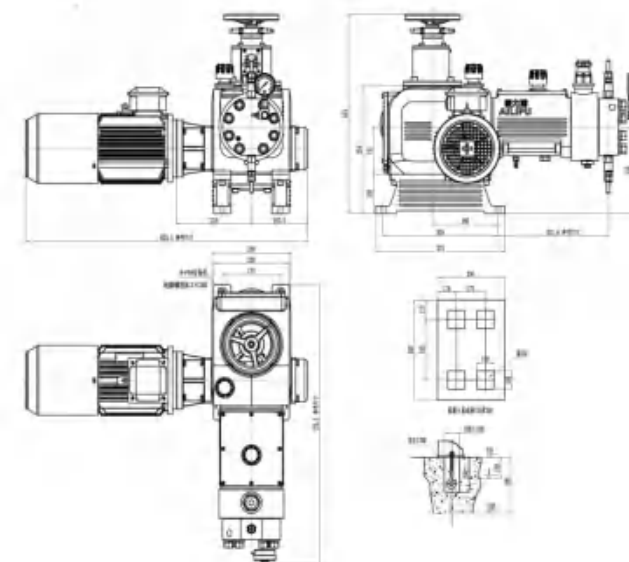
Outline Dimension and installation reference size



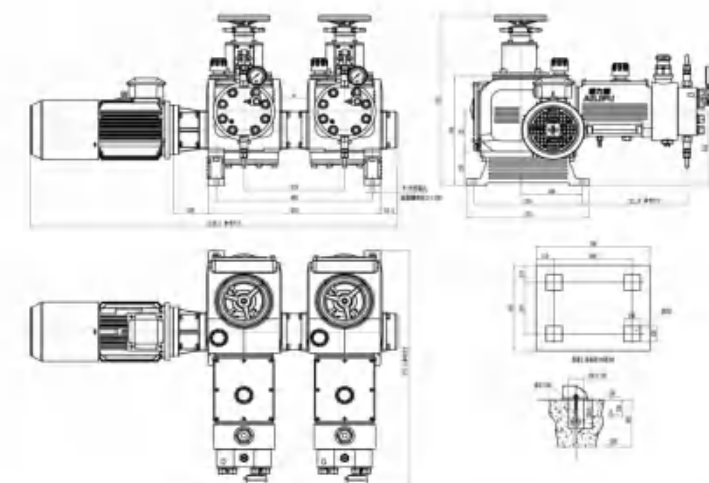
J5.0X



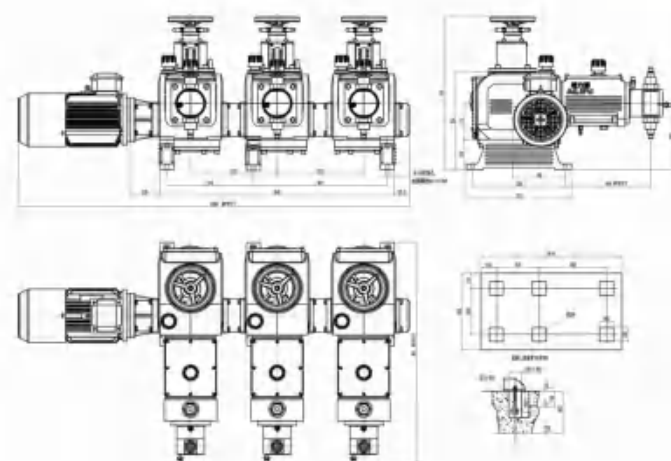
2J5.0X



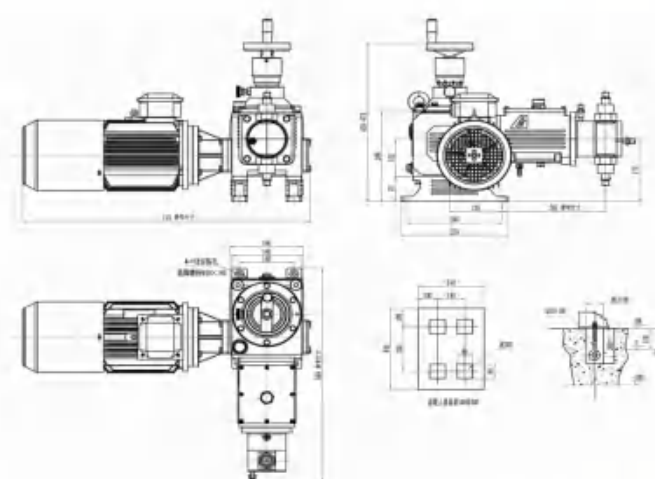
JYM5.0X



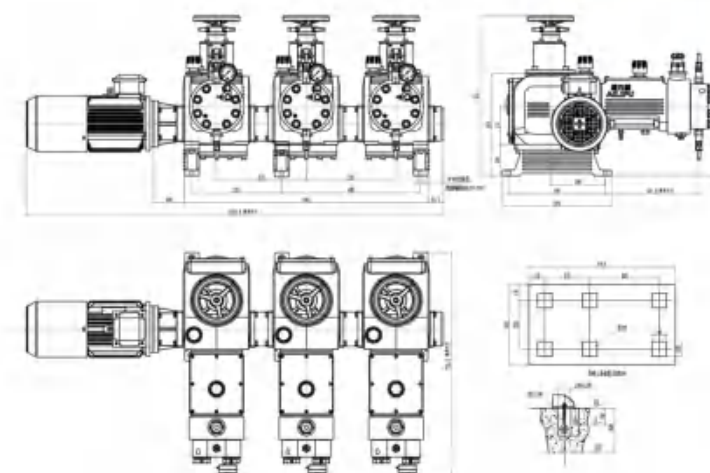
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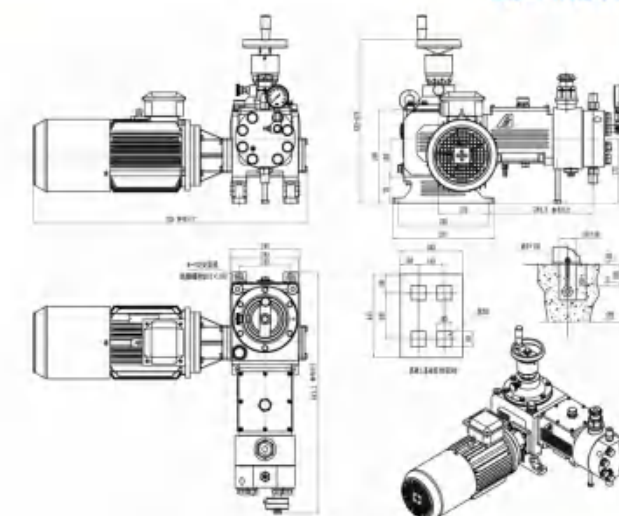
3J5.0X



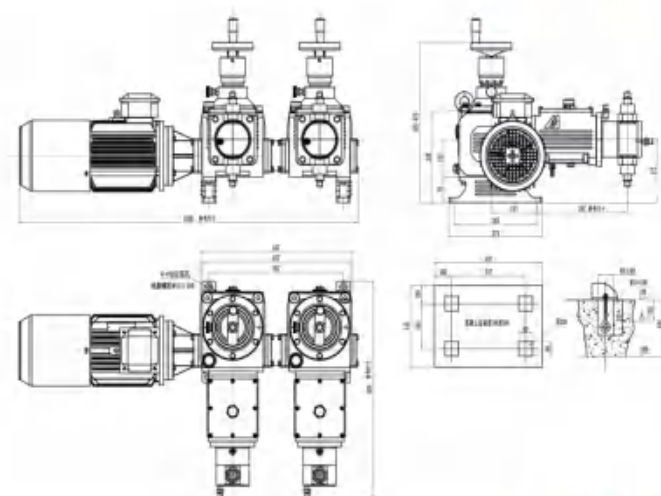
J5.0D



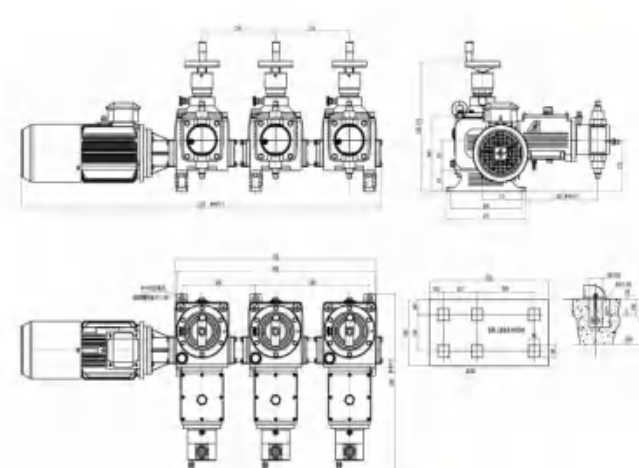
3JYM5.0X



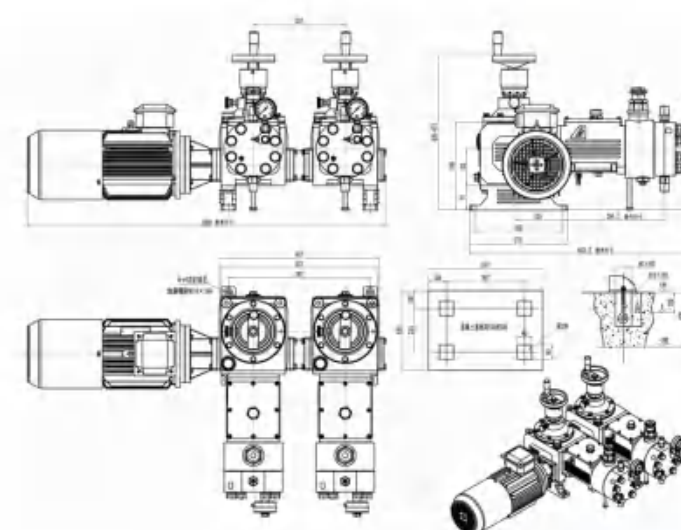
JYM5.0D



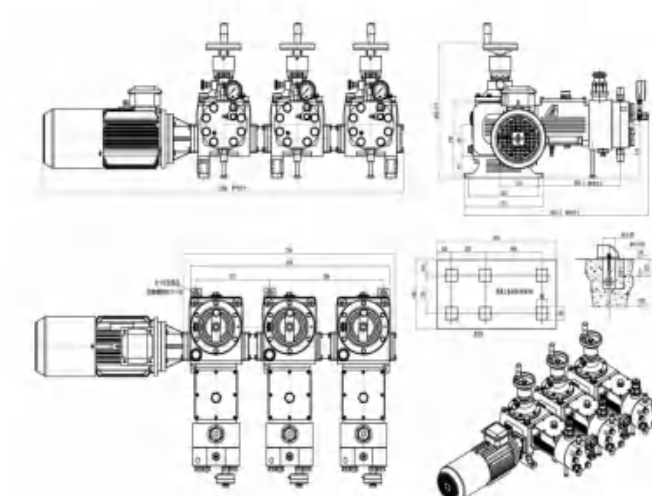
2J5.0D



3J5.0D



2JYM5.0D



3JYM5.0D

G

special pump



■ Smart Ex-Proof Stroke Controller



■ Smart Diaphragm Rupture Alarm



■ Triple-Head Butane Pump



■ Metering Pump With Diaphragm Rupture Alarm



■ Remote Transmission Ultra-high Temperature Diaphragm Metering Pump



■ Low Temperature (Cooling) Diaphragm Metering Pump



■ Digital Controller



■ High Vibration Chemical Metering Pump



■ Pump Skid With Damper



■ Low Vibration and Low Noise Metering Pump





Classic engineering projects

-
- 01 ○ CNOOC Offshore Platform
 - 02 ○ Puguang Gas Field
 - 03 ○ Sinopec Dawan Gas Field
 - 04 ○ Yanchang Petroleum
 - 05 ○ Jiangnan Oilfield
 - 06 ○ PetroChina Scarborough Shoal
 - 07 ○ Pakistan Nuclear Power Plant
 - 08 ○ Iraq Oilfield
 - 09 ○ Daqing Oilfield
 - 10 ○ Chad Refinery in Africa
 - 11 ○ Hengyi Petrochemical
 - 12 ○ Changqing Oilfield
 - 13 ○ Beijing Radium Boron Technology



CNOOC Offshore Platform



Puguang Gas Field



Sinopec Dawan Gas Field



Yanchang Petroleum



Jiangnan Oilfield



PetroChina Scarborough Shoal



Pakistan Nuclear Power Plant



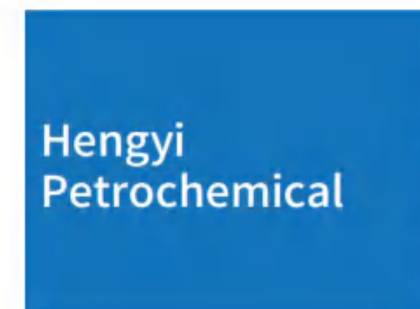
Iraq Oilfield



Chad Refinery in Africa



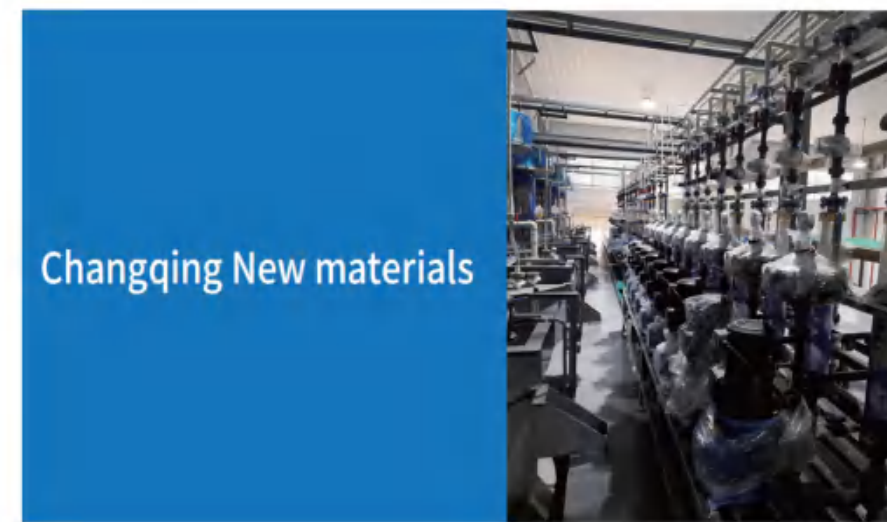
Daqing Oilfield



Hengyi Petrochemical



Beijing Radium Boron Technology



Changqing New materials

