



Innovative Fluid Solutions
The Choice of Trust

Hose pump

PRODUCT CATALOG



Anhui Changyu Pump And Valve Manufacturing Co., Ltd.

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whatsapp

Anhui Changyu Pump And Valve Manufacturing Co., Ltd.

CORPORATE INTRO

2006

Anhui Changyu Chemical Pump Valve Co., Ltd. was established to start the journey of the chemical pump and valve industry.

2008

Successfully developed the first UHB-ZK type corrosion-resistant and wear-resistant mortar pump independently, and put it into production.

2009

Firstly passed the ISO9001 quality management system certification, laying the foundation for quality.

2011

Independently developed FYH type corrosion-resistant and wear-resistant submersible pump fills the market gap.

2012

Develop and mass-produce CYQ type fluoroplastic magnetic pump, and the capacity has reached a new height.

2014

Develop large flow, high lift chemical pumps with a caliber of 250 to expand the product application field.

2015

The company renamed to "Anhui Changyu Pump and Valve Manufacturing Co., Ltd." and embarked on the road of brand upgrading. It was honored the title of National High-tech Enterprise and won the title of "Anhui Province Special Small and Medium-sized Enterprises" for the first time.

The products were selected the "Five Hundred" recommendation catalog of the national industrial field energy-saving and environmental protection industry.

2021

Fully activate the Zhibang International ERP system, achieving integrated and digitalized management of sales, production, procurement, quality inspection, warehouse and finance.

2024

Successfully passed the ISO 14001 environmental management system and ISO45001 occupational health and safety management system certification.

20000+ M²

Floor area

40+ YEARS

Industry experience

20000+ UNITS

Annual production capacity

100+ Certificates

Enterprise certificate

CORE COMPONENTS

> Product Introduction

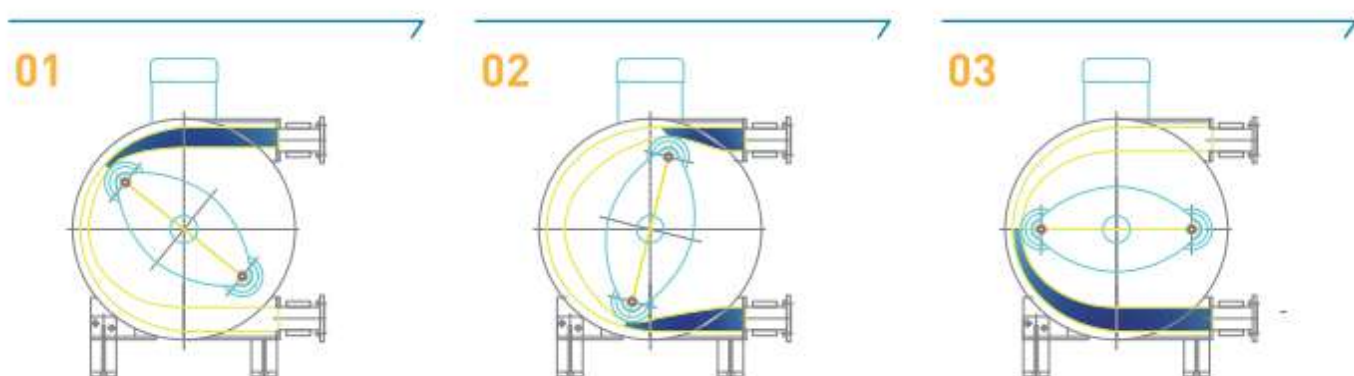
Hose Pump Overview

A flexible hose pump belongs to the peristaltic pump category. It primarily consists of a specially designed rubber hose corresponding to a pair of pressure rollers on the rotor assembly inside the pump body. As the pressure rollers rotate along the rubber hose, the squeezing force generated between the rollers and the pump casing compresses the hose. Under the forced elasticity of the hose, the vacuum created by its return to its original shape draws in the fluid material. The material is then discharged from the hose under the mechanical compression of the pressure rollers. This cycle repeats , achieving continuous material output.

The unique advantages of a flexible hose pump include: no other pump type has better self-priming capability, and it can generate almost perfect vacuum for liquid suction; it can transport liquids containing gas and foam without air resistance; and it excels at transporting high-viscosity, shear-sensitive media; its discharge rate is fixed per revolution and is independent of outlet pressure. Flexible hose pumps are capable of transporting highly abrasive media. They are valve-less and seal-less; the only part in contact with the medium is the inner bore of the rubber hose, and the rotor that compresses the hose is completely independent of the medium. A flexible hose pump mainly consists of five parts: pump casing, rotor, reducer, motor, base, and hose. The durability of a pump depends primarily on the elasticity and corrosion resistance of the pipe, while its flow rate is related to the speed of the motor and the inner diameter of the pipe.

Working principle

A specially made rubber hose with a smooth inner wall and reliable strength is installed inside the pump body. A pair of pressure rollers rotate and squeeze along the hose. This rotation causes the medium to be transported in one direction without backflow. After the medium is transported, the hose returns to its original shape due to its own elasticity. At this time, a high vacuum is generated inside the hose, which draws the medium back into the cavity. Then, the medium is discharged from the hose under the subsequent pressure rollers. This cycle repeats continuously, and the medium is continuously drawn in and discharged.



► 1.The transmission device drives the rotor to rotate, and two pressure rollers mounted on the rotor at 180° angles squeeze the hose. When the first pressure roller squeezes the hose, a high vacuum is created inside the hose, drawing the pumped material into the cavity. The hose then quickly returns to its original shape due to its own elasticity.

► 2.The pumped material has now entered the hose, and the second pressure roller will squeeze the hose and push the material forward until it reaches the outlet.

► 3.At the outlet of the hose pump, one pressure roller is about to detach from the hose, while another pressure roller, mounted on the rotor at a 180° angle, begins to squeeze the hose, thus preventing internal fluid leakage. This cycle repeats continuously, with material being continuously drawn in and discharged.

4 core advantages - solving various pumping problems

Super wear-resistant 01

Designed specifically for abrasive media

The hose is made from imported rubber materials and is suitable for conveying abrasive fluids containing impurities such as sludge, sewage, and slurry.

02 Widely applicable

For conveying various media, including high-viscosity, low-viscosity, paste-like, high-purity, neutral, corrosive, and media containing gas, foam, or hard solid particles.

Strong self-aspirating 03

9-meter super self-priming capacity

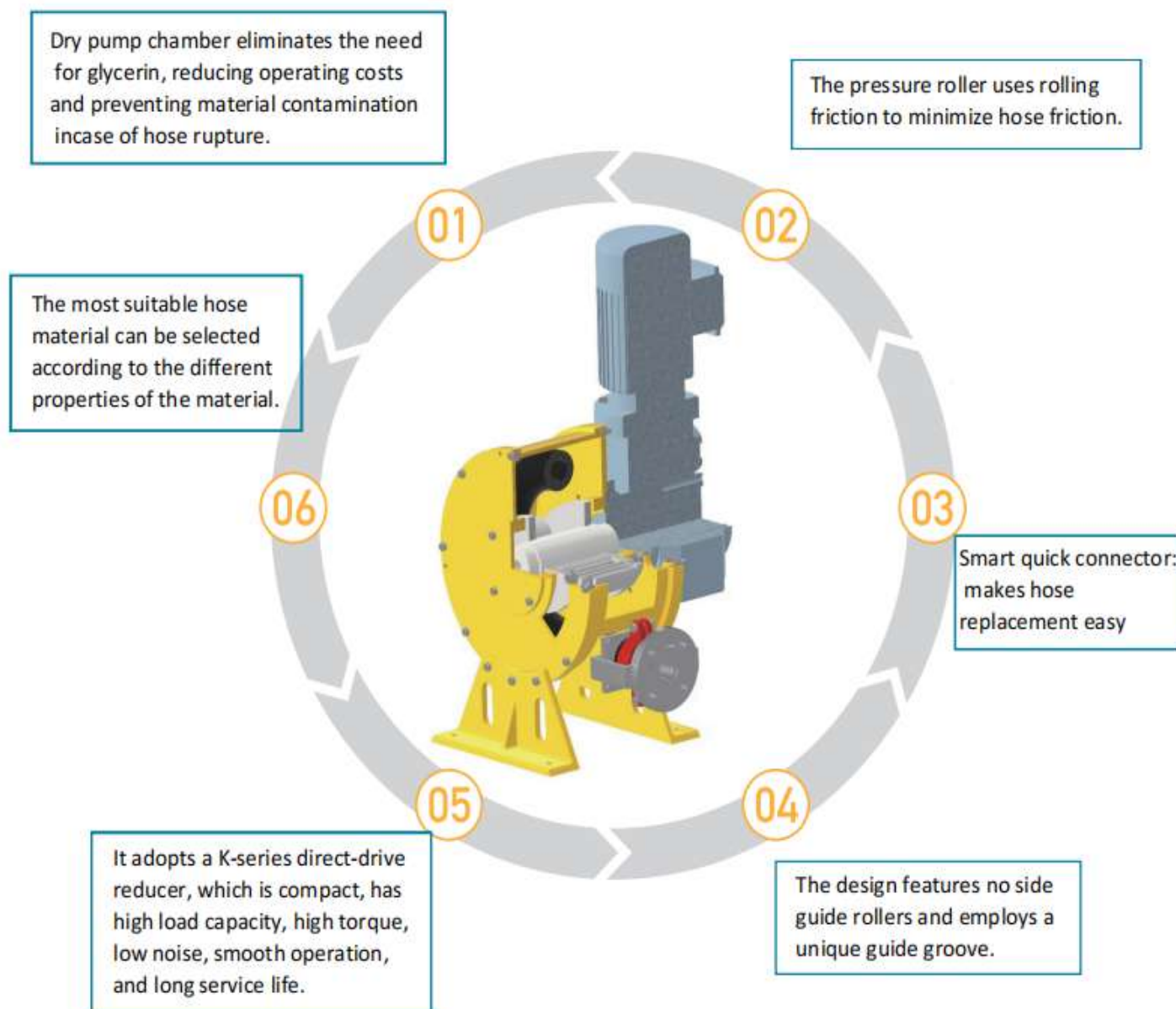
Special rotor machining process results in a smooth, seal-free pump casing, allowing for a self-priming capacity of up to 9.5 meters. No priming is required; it can operate normally immediately upon startup.

04 No blockage

It can pass through foreign objects of 0-50mm in size.

It can easily pass through solid foreign objects added to fluids, such as strips of cloth, weeds, plastic bags, sand, etc.

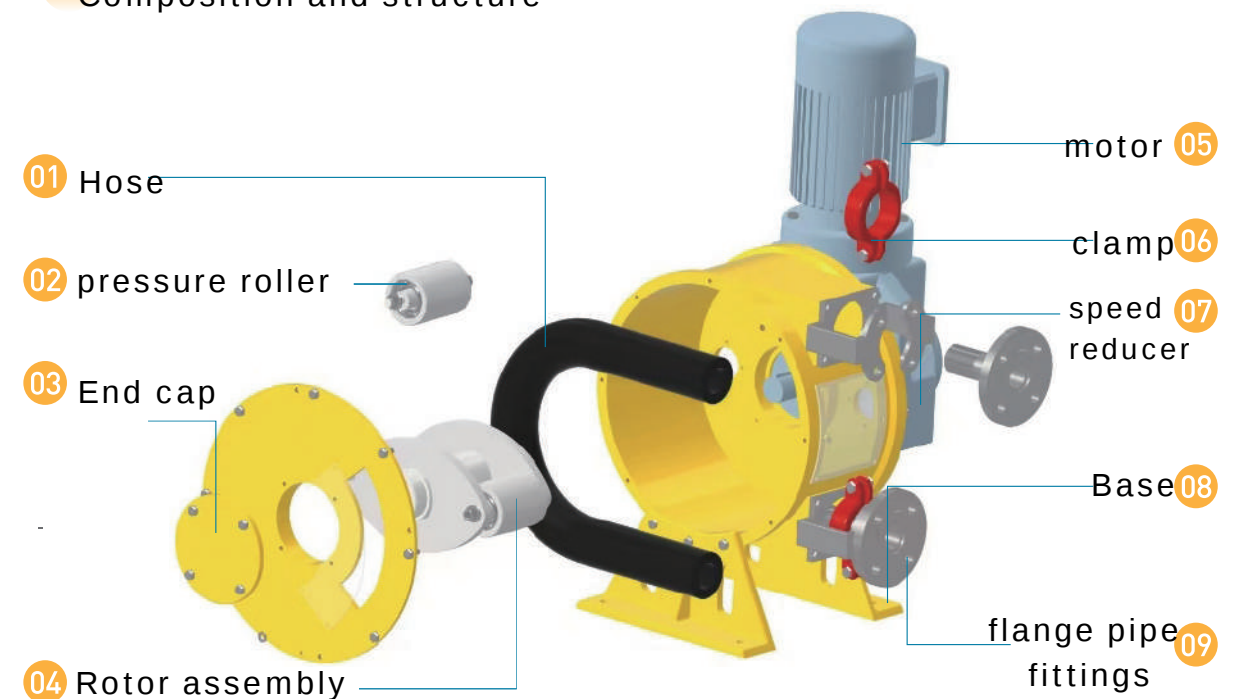
Technological advantages



Superior product performance

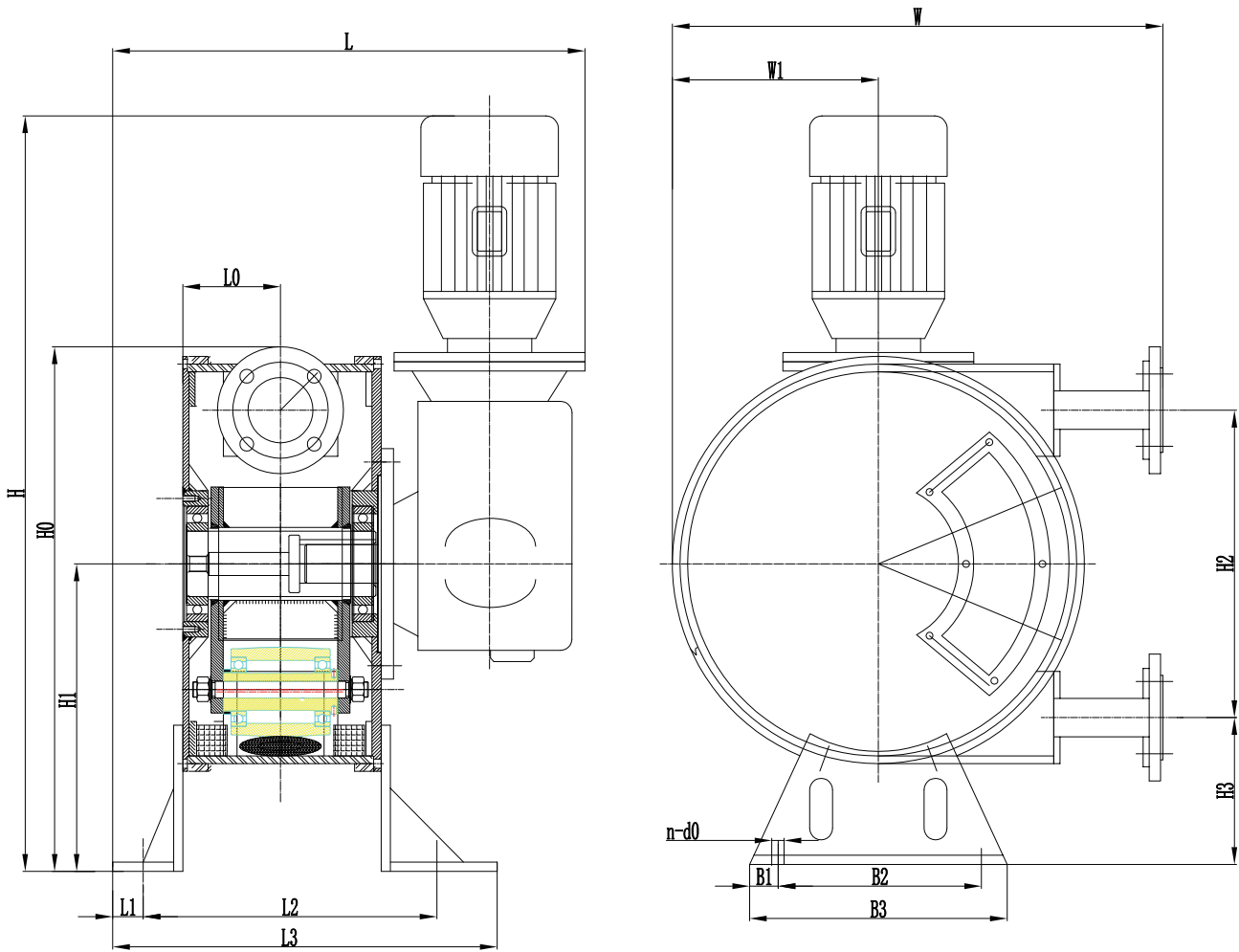


Composition and structure



ZJP-Z SERIES HOSE PUMP INSTALLATION DIMENSION DIAGRAM (TABLE)

> ZJP-Z Series Hose Pump Installation Dimensions (Table)



Model	L	L ₀	L ₁	L ₂	L ₃	H	H ₀	H ₁	H ₂	H ₃	W	W ₁	B ₁	B ₂	B ₃	n-d ₀	dg
ZJP10Z	251	59	20	230	270	450	253	165	130	100	250	85	30	100	160	4×12	10
ZJP20Z	347	84	20	260	300	546	335	209	178	120	313	128	30	160	220	4×12	20
ZJP25Z	408	91	25	290	340	625	421	258	220	140	361	156	30	200	260	4×14	25
ZJP32Z	430	107	25	315	365	724	495	292	265	160	427	187	30	240	300	4×14	32
ZJP40Z	550	113	35	370	440	890	559	337	304	180	509	211	35	270	340	4×14	40
ZJP50Z	584	128	40	420	500	982	682	400	400	200	643	270	40	330	410	4×18	50
ZJP65Z	632	154	52	520	624	1112	810	447	560	210	816	352	24	580	628	4×22	65
ZJP75Z	770	167	55	540	650	1280	895	512	590	220	887	383	55	540	650	4×22	65
ZJP90Z	915	201	40	698	778	1396	1131	638	773	200	1097	493	54	700	808	4×26	80
ZJP100Z	1053	217	50	792	892	1923	1593	881	1190	250	1441	712	75	850	1000	4×32	100

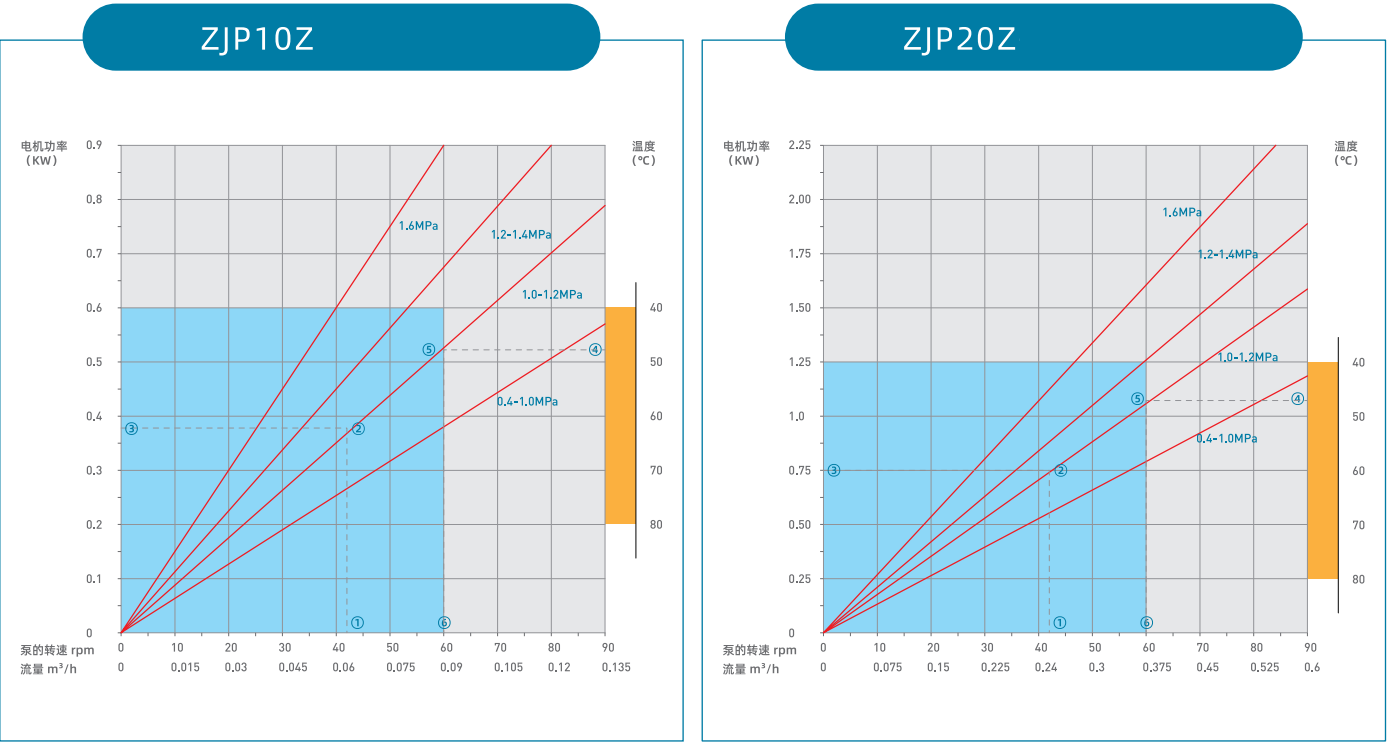
PARAMETER SELECTION TABLE

> ZJP-Z Series Hose Pump Parameter Selection Table

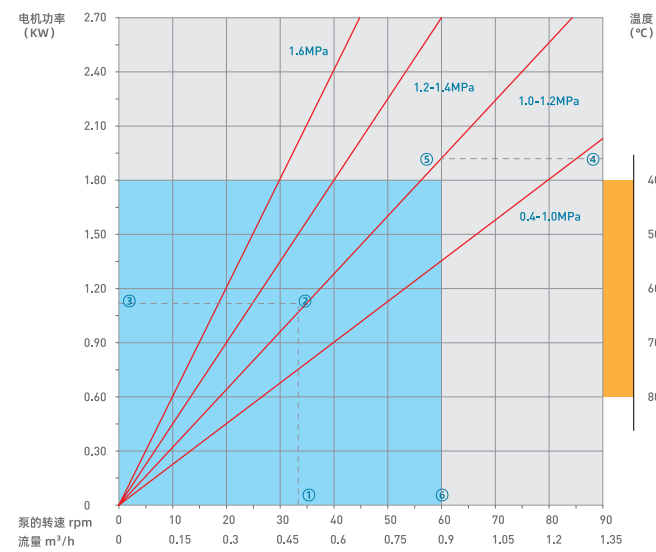
Model	Flow m ³ /h	Pressure MPa	Speed r/min	Power KW	weight KG
ZJP10Z	0.06	1.0	42	0.55	47
ZJP20Z	0.3	1.0	42	0.75	85
ZJP25Z	0.5	1.0	34	1.1	114
ZJP32Z	1.0	1.0	42	1.5	145
ZJP40Z	2.5	1.0	43	2.2	175
ZJP50Z	6.0	1.0	50	4	280
ZJP65Z	11	0.8	42	5.5	475
ZJP75Z	20	0.8	50	7.5	521
ZJP90Z	30	0.8	34	11	1080
ZJP100Z	50	0.8	35	22	1750

ZJP-Z SERIES HOSE PUMP FLOW CURVE DIAGRAM

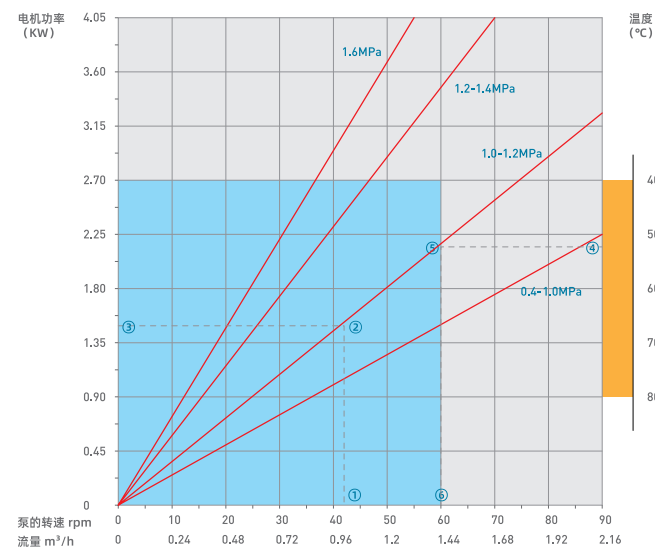
> ZJP-Z series flexible hose pump flow curve



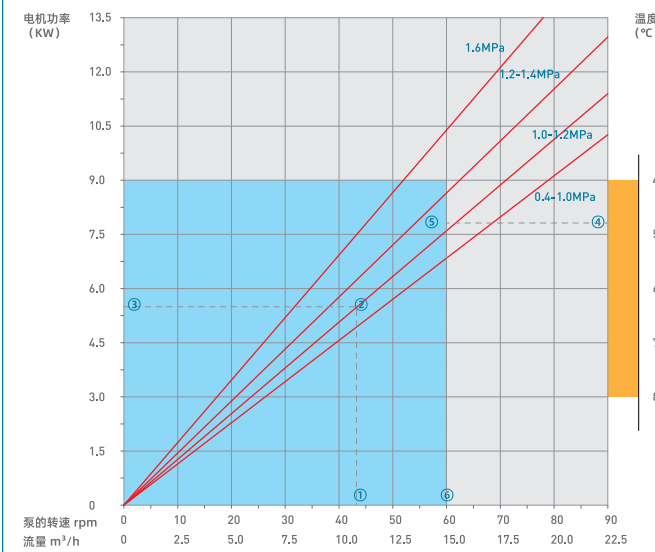
ZJP25Z



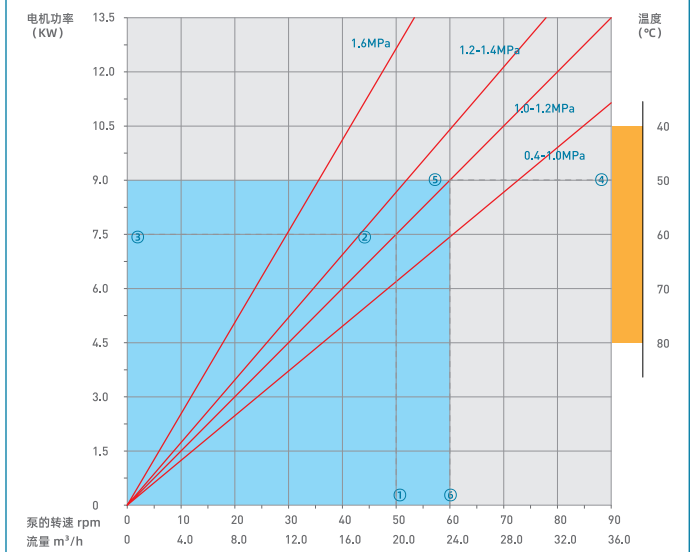
ZJP32Z



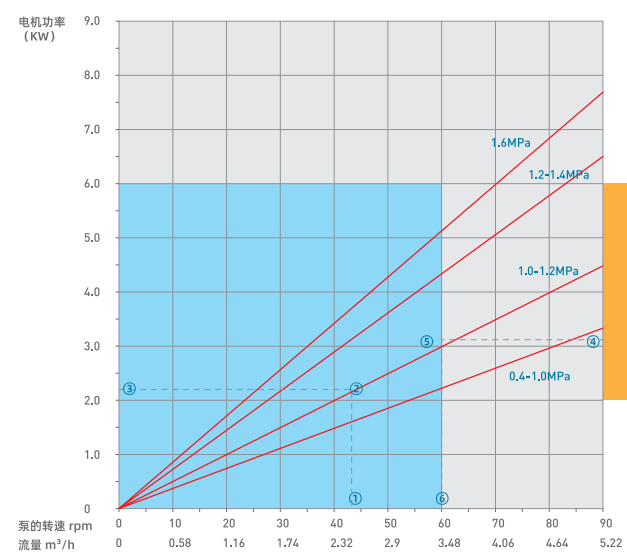
ZJP65Z



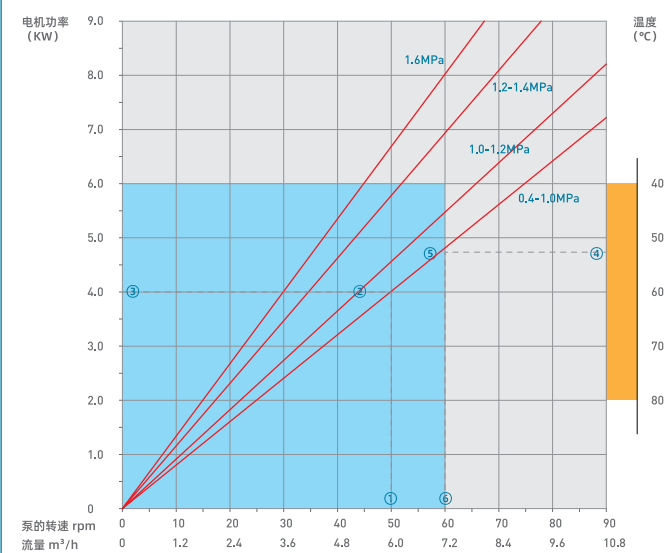
ZJP75Z



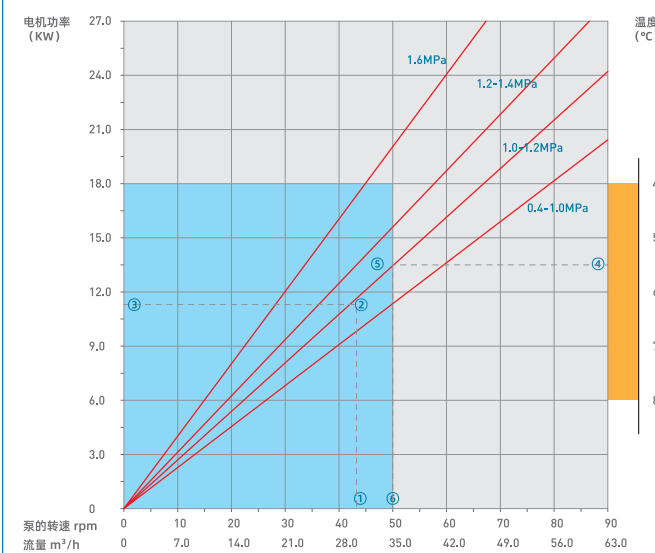
ZJP40Z



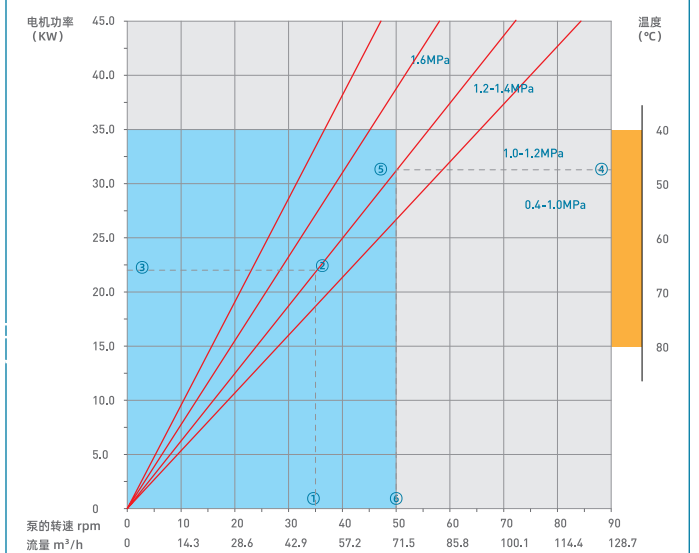
ZJP50Z



ZJP90Z



ZJP100Z



CORE COMPONENTS

> Core components

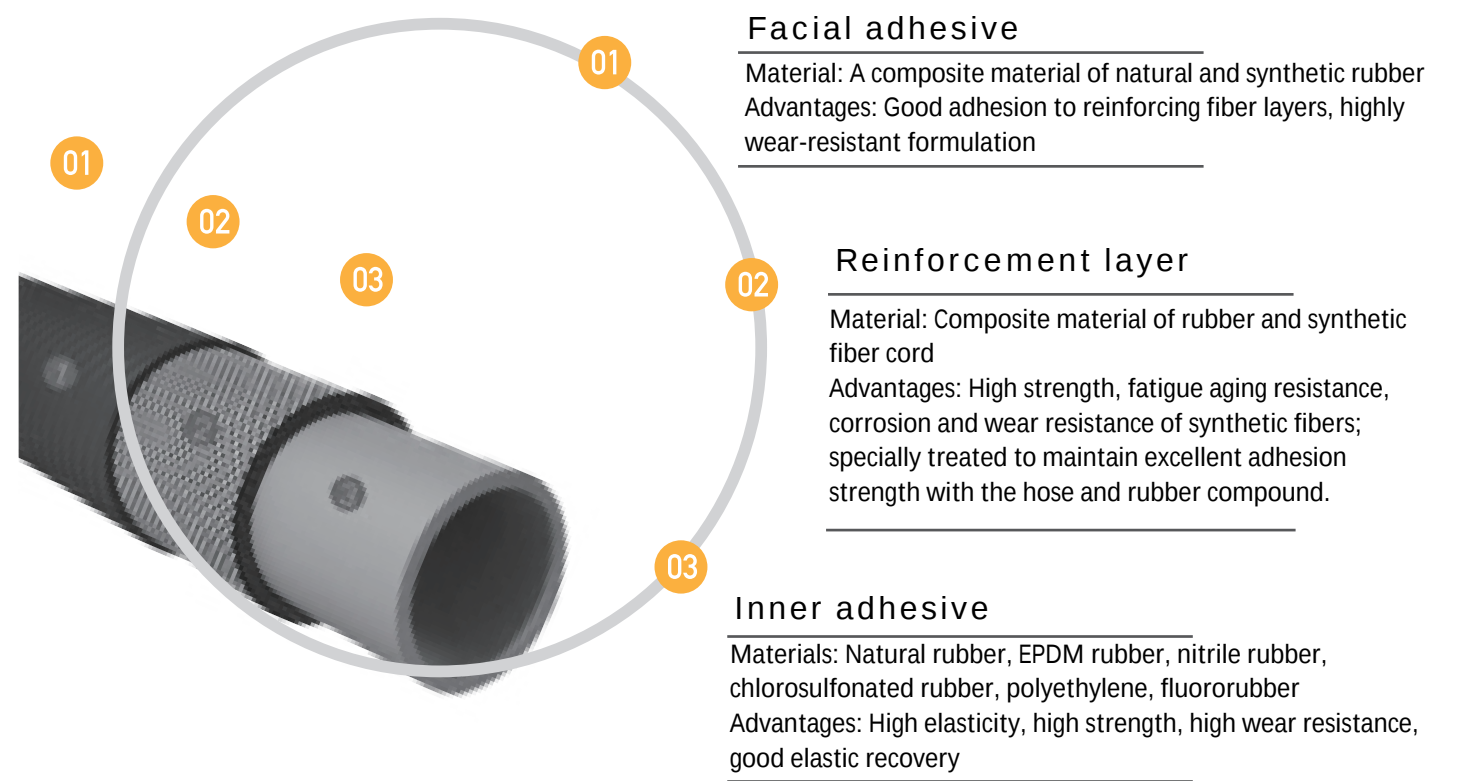
Hose Introduction

The hose is the core component of a hose pump and also a crucial wear part. Hose has a long service life, extremely low maintenance costs, and is easy to maintain; it can be replaced by rotating the motor, minimizing downtime.

Anhui Changyu possesses R&D and manufacturing capabilities for hose pumps and hoses. For many years, it has been dedicated to developing specialized hose formulas and manufacturing processes for hose pumps. For different materials, it has successively developed hoses for hose pumps made of various materials. Its products have achieved the same service life as international standards, but at only 1/5 the cost of international brands. They can replace all imported hose pumps.

Hose Composition Structure

The hose is the core component of the hose pump. Anhui Changyu's independently developed hose is produced using the international standard structure winding method. It consists of a top layer, a reinforcing layer, and an inner layer. It can withstand pressures up to 1.6 MPa and has a long service life.



OPTIONAL MATERIALS FOR HOSES

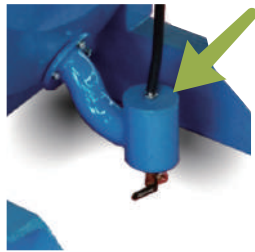
> Optional materials for hoses

characteristic		Temperature	Chinese name
	Excellent abrasion resistance, generally resistant to diluted acids and alcohols. Examples: Sludge with a solids content up to 85% Magnesium oxide and titanium dioxide Water-based paints and pigments Food waste	-20至80 (°c)	Natural rubber
	Excellent resistance to strong oxidizing agents and concentrated acids and alkalis. Examples of media: Hydrogen peroxide content up to 60% Cationic flocculant (polymer) High-concentration sulfuric acid	-20至85 (°c)	Chlorosulfonated polyvinyl rubber
	Excellent chemical resistance, especially to ketones, alcohols, and concentrated acids. Examples of media: Sodium hypochlorite, Sodium bisulfate, Ferric chloride, Hydrochloric acid	-20至100 (°c)	EPDM rubber
	Self-colored inner surface, easy for food contact, suitable for various foods, including dairy products. Examples of media: Fruits and fruit concentrates, yogurt and dairy products, yeast, sugar, food additives. Resistant to various cleaning chemicals.	-20至80 (°c)	Food-grade natural rubber
	Resistant to oils (non-mineral), greases, alkalis, and detergents. Example medium: Polyaluminum chloride in sludge containing hydrocarbon fractions.	-20至80 (°c)	Nitrile rubber
	White inner surface for easy food contact. Suitable for various foods, including fatty foods. Examples of media: Fruits and fruit concentrates, yogurt and dairy products, yeast, sugar, food additives. Resistant to various cleaning chemicals.	-20至80 (°c)	Food-grade natural rubber

A variety of materials offer better options for handling different media!

Optional accessories

01 Leak detector



In the event of a hose rupture, the medium flows into the chamber, causing the liquid level inside the pump to rise. The detector detects the rupture, and the pump stops operating.

02 PLC remote intelligent control



Start/stop, change of running direction, automatic/manual control mode, and leak detector signal input (controlled by contact closure or 5V~24V industrial logic quantity) are all controlled by a remote switch.

03 safety valve



Safety valves are generally installed at the outlet of the pump to release pipeline pressure and ensure system pressure stability. Used in conjunction with dampers, it can reduce the harm of water hammer and achieve superior low-vibration adjustment effects.

04 Filter



Y-type filters are an indispensable device in pipelines that transport fluids, typically installed at the inlet of pumps. They are used to filter impurities in the fluid to protect the pump and other equipment from damage.

05 Pulsating damper



Pulse dampers utilize the compressibility of gases to buffer pressure fluctuations in incompressible fluids. Selecting a suitable pulse damper can reduce system pulses by more than 90%, bringing the transported liquid closer to a laminar flow state.

06 Built-in frequency converter



Variable frequency drives (VFDs) can be used to adjust the speed of the drive. Therefore, pumps can provide a variable flow range to meet application requirements.

07 Flow metering



No slippage, backflow rate $\pm 1\%$, metering accuracy $\pm 5\%$.

08 Pressure gauge



All-plastic diaphragm pressure gauges have excellent corrosion resistance and are suitable for measuring the pressure of corrosive liquids or gases such as chlorine and nitric acid in the chemical industry.

CRAFTSMANSHIP SERVICE

> Meticulous Service

Meticulous craftsmanship , superior service

To better serve and meet customer needs, Zhongjinghuasheng's after-sales technical engineers provide comprehensive services year-round, from technical support to maintenance.

Our customer service and after-sales teams will listen attentively to customer feedback and promptly relay it to the R&D department for improvement, aiming to achieve further technological upgrades.

For any needs, please contact Zhongjinghuasheng's business or after-sales departments promptly; we will respond to your requests quickly and efficiently!

Professional service engineers, comprehensive service, and rapid response.



Rapidly



01



Serious

02

Patience



04



Timely

03

CORE COMPONENTS

> Application areas



01 Biological and pharmaceutical industries

Precise measurement, transmission, and filling of blood, protein, and pharmaceutical solutions with extremely high hygiene requirements.



03 Printing industry

Pumping inks, coatings, adhesives, etc.



05 Paper industry

Pumping pulp, adhesives, dyes, latex, etc.



02 Water treatment industry

Pumping highly viscous mud containing solid particles, or polymeric electrolytes, flocculants, etc.



04 Food and beverage industry

Pumping dairy products, meat products, jellies, egg yolks, condiments, fruit juices, etc.



06 Mining industry

Pumping abrasives, corrosive fluids, fluids containing solid particles, and strong acidic fluids, etc.



07 Paint and pigment industry

Pumping paint, coatings, latex, etc.



09 Chemical industry

Pumping highly corrosive and abrasive solutions such as hydrogen peroxide and electrolytes.



11 Environmental protection industry

Lime water, chemicals, filtration, or sewage treatment.



13 Thermal power and nuclear power plants

Chemical treatment (acid and alkali solutions), equipment cleaning and deep pit drainage, radioactive waste liquid.



08 Brewing industry

Pumping yeast, clarifying agents, or other additives, etc.



10 Ceramics industry

Mold cavity filling, ceramic slurry, clay glaze, and glaze clay conveying.



12 Construction industry

Fiber mortar, gypsum, lightweight concrete, cement flooring.



14 Oil refinery

Waste oil, sewage, and sludge recycling and discharge, container cleaning, etc.

PROJECT CASE

> Project Cases



01 ▶ Chemical pumping

CHEMICAL AGENT PUMPING



02 ▶ Pumping of high-viscosity materials

HIGH VISCOSITY MATERIAL PUMPING

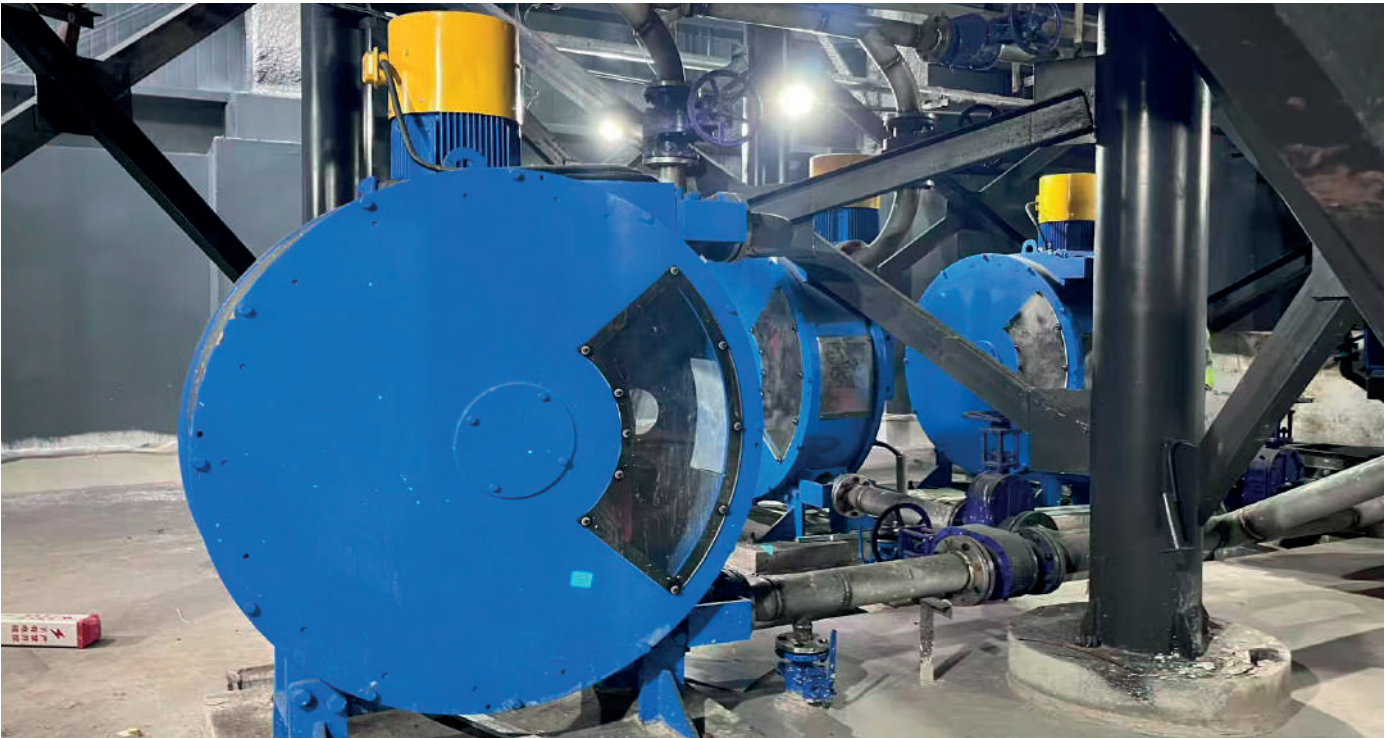


03 ▶ Pumping of large particles

LARGE PARTICLE MATERIAL PUMPING

PROJECT CASE

> Project Cases



04 ▶ Separation feeding pump

SEPARATE FEEDING AND PUMPING



05 ▶ Strong acid and strong alkali pumping

STRONG ACID AND STRONG ALKALI PUMPING



06 ▶ Magnetic material pumping

MAGNETIC MATERIAL PUMPING