suofu

MICRO MAGNETIC GEAR PUMP

NP- Fluid Technology solution Specialist

suofu

Your faithful partner

Company profile

Founded in 2010, Shanghai Super Fluid Industrial Co.,Ltd designs and manufactures high precision micro magnetic drive gear pumps. Innovation-driven and market-oriented, our company focuses on providing world-leading products and services to our customers.

Suofu is accredited as the Chinese National High-Tech Enterprise. We set up an R&D + Sales Centre in Shanghai and Production Facilities in Fujian Province. All of our product series have got CE Marking and RoHS Certification, and meet the requirements of ISO9001:2015.

Thanks to the 13 patents we own, our company possesses independent intellectual property rights over the entire manufacturing process: special material utilization, gear tooth profile design, high precision machining, one-step plastic injection molding, as well as precision assembly and testing.

A stable team of technical and research experts oversees the production and innovation of Suofu. Team members have more than 20 years'experience in fluid transmission, structural mechanics, system dynamics, material machining and forming, and power system protection. Either former senior managers in top international pump manufacturers, or former production directors in the fluid transmission industry, our managers have a deep understanding of the technology development and product upgrades, along with the sheer expertise in supply chain management and control. We can adjust our services at anytime to the needs of customers so as to ensure that they can enjoy comprehensive and highly professional technical support from pre-sales installation to after-sales maintenance.

Compared with competing products all around the world, our NP series pumps have distinguished properties in precision, pressure, stability, as well as the capabilities of dry running and self-priming. The past ten years have seen praises and recognition for our products from many prestigious research institutions and customers all over the world.

Suofu is aiming to provide the most suitable fluid transmission solutions to various customers in a professional and down-to-earth manner.

Our faith is: "Your needs are our mission".

Corporate culture

Our purpose is making value for our customers employees and shareholders by providing high quality products and service to valuable customers.

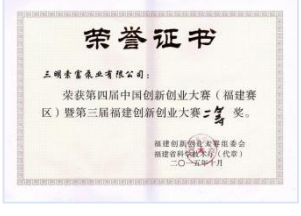
The company is committed to highly professional and close to the customer service to provide customers with the most suitable for customer needs complete solutions

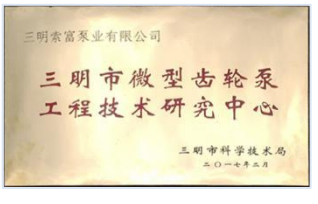
Enterprise concept:

- Make a little progress every day, and you can reach a magnificent environment;
- Always pursue excellent quality; Everything is based on facts and respect for science;
- Don't be afraid of competition, do your own thing with your heart;
- Strive for the common goal, to realize everyone's dream.

Enterprise qualification

suofu production base, for the national high-tech enterprise, Fujian Province Sanming Super Fluid Industrial Co.,Ltd engineering technology research center.suofu micro magnetic gear pump engineering technology project entered the national final of China Innovation and Entrepreneurship Competition and won the provincial second prize. NP full series of products won the EU CE certification, ISO9001:2015 certification, RoHS certification and REACE certification.





Product Development

Before the development of new products, the technical team did a lot of market research, deeply grasp the actual direction of customer demand for products, and understand the characteristics of customers' system, in order to ensure that the designed and developed products are customers, the real demand of products, the design parameter range is the parameter range of customer demand.

Before NP series product development,so rich technical team through years of technical research experience and market use analysis,has fully understand the characteristics of the micro pump products and the advantages and disadvantages of the existing products on the market, can accurately find the key point of technology breakthrough,targeted research, so rich NP series products core technology involves the overall design,material selection and matching and manufacturing process, are so rich team independent patent technology.

The team has a large amount of friction characteristic verification data between polymer materials and various special materials, allowing the technical team to quickly find the right engineering solution according to the market demand.

Quality assurance

'Quality is the life of the enterprise' this creed, remember in the heart of every employee 'do the best pump' is our goal together.

In order to ensure the quality of each suofu NP series product, each pump has an exclusive identification code to ensure the quality of the pump detection and tracking. Before the forma production, each pump needs to go through the noise tests, vibration tests, wear resistance test, flow test, pressure performance test, pressure test, energy consumption test 7 production tests, all reach the qualified index before they can be produced. We not only provide standard factory testing, but also can provide the development of work point tests according to your needs.

Excellent companies not only rely on high-quality products, but also rely on high-quality employees. With a strong sense of responsibility and long-term stable core staff, has always been the pride of suofu team!

Applications

NP series micro magnetic drive gear pumps are ideal for fluid transfer at a flow rate from 2ml/min to 65000 ml/min. Our products have been applied in systems including fluid transfer,lubrication, sampling, spraying, dispensing, printing, pressurisation, filtering, washing, circulation,cooling, coating, painting, and metering..

Equipped with small integrated DC motor with built-in drive, NP micro magnetigea pump can be used in small space; equipped with explosion-proof motor, NP micro magnetic gear pump can be used in flammable and explosive situations; equipped with variable frequency DC / AC motor, NP micro magnetic gear pump can be used in the precise speed regulation.

The suofu NP series products have been matched in aerospace,chip low- temperature testing equipment, lithography machines, fire protection, various refrigeration systems, lithium batteries and lithium battery separator production lines, methanol hydrogen production systems, steam generators, medical equipment, pharmaceutical machinery food machinery, water treatment equipment, online sampling systems, high-precision measurement systems, diesel engine National VI exhaust gas post-treatment SCR systems, fresh air systems, waste heat recovery systems , laboratory equipment Various testing systems, industrial/civil cleaning, various spray systems and other high-end fields.

After years of development, SOFT has cooperated with many domestic and foreigin stitutions of higher learning such as Tsinghua, Zhejiang University, University of FinlandUniversity of Iceland and National University of Singapore. Chinese Academy of Sciences Microsatellite Center, Dutch Research Institute and many other research institutes; Huawei, Midea, Haier, Gree, Samsung Heavy Industries, Sinopec, SerEnergy A/S and other well- known enterprises have established long-term cooperative relations.










NP Series Pump Installation, Use and Safety Manual

Safety Warning

Gear pumps can produce high pressure differences. Excessive pressure may damage the system and cause harmful liquids to harm on-site personnel. overtake Operating conditions that exceed design limits can also damage the pump or motor.

The pump and motor work together. Before measuring the pump, please cut off the power supply to the motor and completely release the pressure in the pump.

Before opening the pump, please confirm that the fastening screws of the pump body are installed correctly.

Do not change the components of the pump and motor. Any changes may reduce the pressure rating of the pump and cause injury to people.Please use original factory-approved repair parts.

The pressure of the pump is 25Bar at room temperature. Normal operating conditions of the pump should be lower than this value. If the medium leaks, it will cause serious As a result, please confirm the safety of the pipeline connection before starting the pump.

The temperature of the liquid cannot exceed 150。C. High temperatures will reduce the pressure of the pump and the torque transmitted by the magnetic force.

If the medium causes corrosion to the pump body or seals, this type of pump will not be used in this working condition. Under this working condition, The reliability and tightness of the pump will be greatly reduced.

/ Installation of the motor and drive parts /

- Sometimes, the heat from the motor can burn your skin.
- The heat generated when the motor is working should be released in time and should not increase the temperature of the motor's working environment. Too high a temperature will drop Low motor performance.
- Pay attention to the protection level of the motor and do not let the motor work in an environment that exceeds the protection level.
- Do not block the ventilation holes of the motor and do not allow foreign matter to enter the motor.
- Once the motor stalls, please cut off the power supply to the motor immediately.

/AC motor/

- Do not block the ventilation holes of the motor and do not allow foreign matter to enter the motor.
- For dual voltage motor wiring, please refer to the wiring diagram on the motor nameplate.
- Motors with overheating protection (see nameplate) will automatically stop working when overheating occurs. Once the temperature of the coil is lower than the protective The motor will start automatically without warning. The overheating protection of the motor cannot be relied upon for conventional control of the motor. Just as a safety protection measure.

/Brushless DC Motor (BLDC)/

- BLDC motors control the speed of the motor by controlling the input voltage. Do not exceed the allowed voltage. Speed control voltage one Generally it is 0-5V.
- Regardless of the input voltage, the motor current is not allowed to exceed the rated current under any circumstances.
- The voltage fluctuation cannot exceed 10% of the rated voltage.
- If the motor has a potentiometer for speed adjustment, when starting, you can first turn the potentiometer to the left to the stop position, and then slowly turn the potentiometer to the right until the speed is adjusted.to the required operating speed.
- For motors with speed signal output, please connect the motor speed signal output line (usually yellow) to the pulse receiver .Each revolution will output 2 pulses, from which the actual motor speed can be calculated.

//Brushed DC motors (PMDC) (including AC/DC series motors)/

- PMDC motors control the speed of the motor by controlling the input voltage. Unless otherwise specified, the control voltage parameters can beFind it on thenameplate.
- Regardless of the input voltage, the motor current can only exceed the rated current for a short period of time. Excessive current will cause the motor to overheat.
- PMDC motors have no over-temperature protection.

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Shanghai Super Fluid Industrial Co.,Ltd.

AddAres Room 602, 18 Feet Building, No. 597 Langao Road, Putuo , Shanghai, China
Web site www.s-fluid.com
Tel +86-13764319509
Email lqx@s-fluid.com

INSTALLATION

- Pump installation: Install the pump as close to the liquid source as possible. The size of the inlet and outlet pipelines cannot be smaller than the size of the pumpi nterface.And try to shorten the length as much as possible. If the inlet line must be long, increase the pipe diameter. Minimize the number of valves and elbows at the pump inlet.
- Pipe installing： During on-site installation, the pipelines and pump inlets and outlets should be aligned as much as possible and pipeline supports should be installed appropriately. Do not place the pipes on the Eccentric torque and weight act on the pump, otherwise the pump body may be damaged and leakage may occur.
- Use thread sealant or Teflon tape to seal pipe connections. Do not tighten more than 5 turns, or use . Do not tighten more than 2 turns mechanically after hand tightening. Do not damage the pump head during installation and do not affect the alignment of the pump.When tightening the threads with a wrench, hold the pump head with your hands.
- Filter： A 25μm or higher filter should be installed at the pump inlet (4 00 mesh or higher recommended). exist In a closed loop system, the filter can be placed at the outlet of t he pump. The use of filters should ensure the flow area of ?? the liquid. The flow resistance of the pipeline should not be increased, and the nominal flow rate of the filter is recommended to be at least 1.5 times greater than the pump flow rate.

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OPERATION

- Magnetic drive ring： Magnetic drive allows the pump to achieve zero leakage requirements.

It can also control overpressure and particles in the system. Provide protection. When the poles of the inner and outer magnetic rings are misaligned under the action of external forces, decoupling will occur.

- When a pump is stalled, the motor may continue to run, but the pump will stop running.
- To resume operation, stop the motor completely and then start it again.
- If the stall continues, check the system for overpressure. If the system pressure is normal, the pump body must be disassembled to check whether there are any external Some particles enter the pump body, causing the gear to stall. After cleaning the internal components, reassemble the pump unit. Before restarting, turn The blades of the motor fan. At this time, the pump and motor should rotate smoothly and without obstruction.
- Operating Pressure： Excessive inlet and outlet pressure differences can cause magnetic coupling slip. Excessive system pressure fluctuations can lead to slippage. occurrence of phenomena.
- Self-priming： The pump is self-priming, but make sure the gears are wetted by the pumped fluid before starting.
- Dry running： Prolonged dry running at excessive speed will cause permanent damage to the pump. Please make sure there is liquid in the pump chamber or at least been moistened.

The maximum allowable dry running speed of different types of pumps:

42 Series： NP020、NP039、NP060、NP070 —— 1600rpm

51 Series： NP100、NP120、NP170、NP190 —— 1500rpm

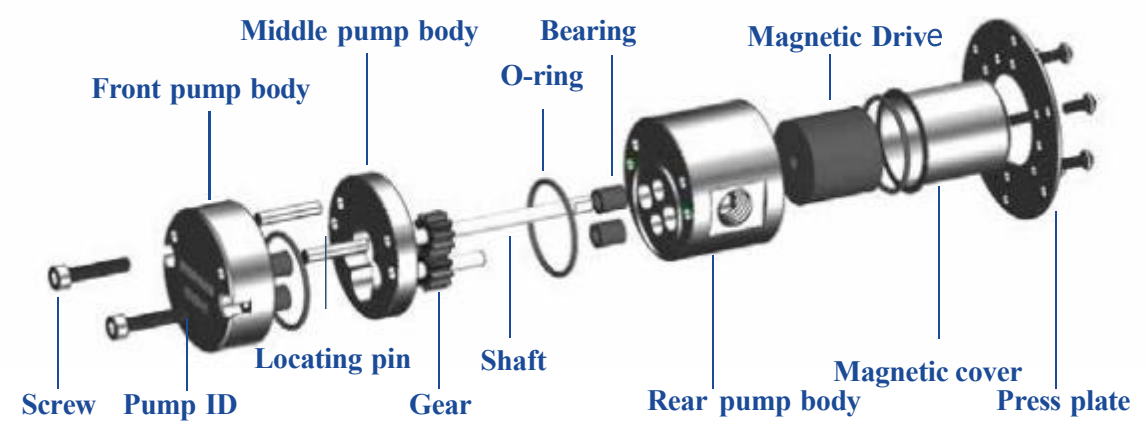
60 Series： NP240、NP350 —— 1000rpm

98 Series： NP400、NP600、NP900、NP1200、NP1700 —— Not recommended for dry running

106 Series： NP2600 —— Not recommended for dry running

- Reverse： The pump should rotate clockwise. Short periods of reversal are acceptable, but long periods of continuous reversal will shorten the pump's life. life span.

NP PUMP'S INTERNAL STRUCTURE



The classic external gear pump principle is equipped with specially designed gears and pump cavity lines. When the gear meshes, it only The small mutual sliding motion greatly reduces the wear of the gears during operation. The special pump cavity line design can make the pump operate at highIt has good adaptability under different working conditions such as low pressure and forward and reverse rotation, allowing both efficiency and lifespan to be taken into consideration.

Injection-molded gears and bearings made of special PEEK material extend the life of the pump's wearing parts. Injection molding work The surface is uniformly formed at one time without mechanical processing, which ensures the complete and dense structure of the working surface and improves the durability of gears and bearings.Abrasion resistance and longevity. The introduction of the ceramic shaft further enhances the overall wear resistance of the pump.

In order to adapt to transporting media containing particles, we can also provide pumps Body ceramic side plates, ceramic gears, metal gears, and high hardness of the entire pump body Coatings and other products in various configurations.

The pump has multiple channels with cooling and lubrication functions, which lead directly to each bearing in the pump and the inner magnetic drive cavity

High-temperature rare earth and strong magnets provide strong torque transmission for the pump. Within our selection range, you don't have to worry about the decoupling of the magnetic drive.The magnetic drive can operate safely for a long time within 150℃.

In order to prevent the pumped liquid from corroding the magnets, we use PPS labyrinth secondary plastic sealing technology to seal the magnets tightly.are protected by corrosion-resistant plastic. The corrosion resistance of PPS is basically close to that of PTFE (polytetrafluoroethylene).

The magnetic drive structure seals all rotating parts in the pump body, making the entire pump non-rotating dynamic seal. 3 seals The ring provides safe and stable sealing conditions for the pump body.

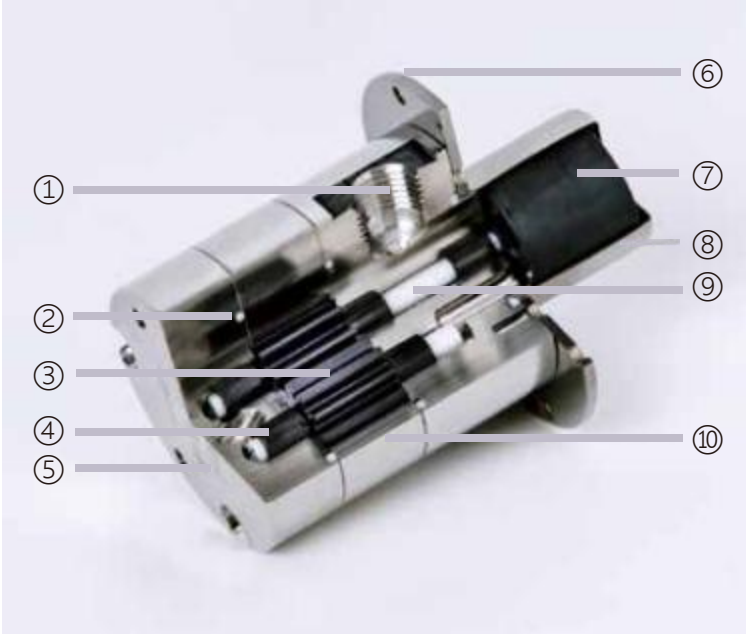
PERFORMANCE FEATURES

Series	model	Nominal flow	Quota traffic
42 Serie	NP020	0.2ml/rev	0~0.6L/min
	NP039	0.39ml/rev	0~1.3L/min
	NP060	0.6ml/rev	0~1.9L/min
	NP070	0.7ml/rev	0~2.2L/min
51 Serie	NP100	1ml/rev	0~2.9L/min
	NP120	1.2ml/rev	0~3.9L/min
	NP170	1.7ml/rev	0~5.4L/min
	NP190	1.9ml/rev	0~6L/min
60 Serie	NP240	2.4ml/rev	0~8.2L/min
	NP350	3.5ml/rev	0~10.5L/min
98 Serie	NP400	4ml/rev	0~12.6L/min
	NP600	6ml/rev	0~18.9L/min
	NP900	9ml/rev	0~28L/min
	NP1200	12ml/rev	0~38L/min
	NP1700	17ml/rev	0~55L/min
106 Series	NP2600	26ml/rev	0~65L/min

Product Features

- High temperature resistance High pressure resistance
- Wear resistance
- Erosion proof
- Low operational noise
- Self-priming capability
- Long life expectancy
- Dry-running for long time

INTERNAL STRUCTURE OF 4251 SERIES PUMPS



①NPT, G, ZG (RC)—1/8", 1/4", 3/8", 3/4", 1" internal thread interface

②Viton/EPDM/PTFE/FVMQ/CR/In/PT+SS316 sealing ring

③PEEK engineering plastics containing high-performance special filling

④Specially filled PEEK bearings

⑤Unique pump ID

⑥SS316 stainless steel or other alloy pressure plate

⑦PPS plastic fully covered rare earth magnetic drive

⑧SS316 stainless steel or other alloy magnetic cover

⑨High-precision industrial zirconia ceramic shaft

⑩SS316 stainless steel or other alloy pump body

NP series miniature magnetic gear pump product description

NP series micro gear pumps only have O-ring precision seals, so there is no risk of dynamic seal failure. Special reinforced PEEK Gears and bearings made of high-precision materials, high-precision ceramic shafts, one-time injection molded gears and independent intellectual property rights The special gear profile design ensures that NP series products have ultra-high service life and wear resistance. You are delivering small traffic, high Ideal for high pressure, non-pulsating corrosive liquids, abrasive liquids, and high temperature liquids.

Product structure characteristics

Special gear profile design

- The special gear profile design with independent intellectual property rights provides the gear with excellent wear resistance and almost pure rolling gear mesh.The matching features can minimize the wear of the gear during operation.

Special cavity line design

- It can adapt to working conditions with a wide range of outlet pressure changes whether it is low pressure, high pressure or short-term reversal.

Pulsation-free outlet pressure

- High-precision parts processing and structural design ensure smooth transportation of liquid.

One-shot injection molded gear

- The working tooth surface of the gear adopts a high-precision one-time injection molding process without mechanical processing. Guaranteed gear working surface The complete and dense structure improves the wear resistance and life of the gear.

High-precision ceramic shaft

- The high-precision ceramic shaft has super wear resistance and rigidity, ensuring the pump's operation in abrasive liquids and high-pressure conditions. stability and improve product life.

Self-priming for long-term dry operation

- In applications where the pump inlet vacuum is required to draw media into the pump, the NP Series provides peace of mind, Dry running performance, the pump will not be damaged due to dry running during self-priming.

Various motors to choose from

AC explosion-proof, AC variable frequency, single-phase/three-phase AC, brushed DC, brushless DC, brushless DC with built-in driver, Shielded brushless DC motors with built-in drivers are vailable for you to choose from.

Product performance characteristics

- Flow range: 0.2ml/rev~26ml/rev （2ml/min-65000ml/min）
- Working speed: 1-4000rpm
- range of working temperature: -120-150°C
- Inlet vacuum height: -0.85Bar
- When transporting water, the pressure difference is 20-30Bar, and the pump body has a pressure resistance of 30-40Bar.
- The outlet pressure difference is stable, pulsation-free and low noise
- Long life, using water as medium, the maximum life can exceed 20,000 hours Can run dry for longer periods of time
- Strong self-suction power, the inlet self-priming height can reach 0. 5 meters under completely dry operation, and the vertical suction height is 8.2 meters of water column.
- IIntegrated motor control and a variety of motors to choose from

MATERIALS

Pump Body	SS316 stainless steel / Hastelloy / special plastics / other alloys
Gear	PEEK engineering plastics/ceramics containing high-performance special filling
Magnetic	Drivemateri Rare-earth elements entirely enclosed by PPS
Bearing	Specially filled PEEK
Shaft	High-precision industrial zirconia ceramics
Sealing ring	Fluorine rubber (Viton)/Ethylene propylene diene rubber (EPDM)/Teflon (PTFE)/ Fluorosilicone rubber (FVMQ)/Indium wire (In)/Energy storage seal (PT+SS316)/ Neoprene (CR)
Port size	NPT, G, ZG (RC)—1/8”, 1/4”, 3/8”, 3/4”, 1”, or other custom sizes

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ELECTRIC MOTORS

BLDC motor

Voltage	Power	Speed	Acceptable environmental temperature	Control	Driver
12V-48V	40W-1500W	100-3500rpm	-45~75℃ Normal with	0-5V/PWM/anual control through knobs	Internal / External

AC motor

IEC standard motor		NEMA standard motor	
Normal with frequency converter	Frequency converter and explosion -proof	Normal with frequency converter	Frequency converter and explosion -proof

Servo motor

We provide servo motors of different brands

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NP－42 SERIES APECIFICATIONS

42 SERIES INCLUDES NP020, NP039, NP060, NP070

NP series miniature magnetic gear pump adopts magnetic drive design, with only O-ring static seal and no dynamic seal.Risk of failure. Gears and bearings made of PEEK material containing special filling materials, high-precision industrial ceramic shafts,One- time injection molded gears and special gear profile design with independent intellectual property rights ensure the NP series productsThe product has ultra-high service life and wear resistance. You are transporting small flow, high pressure, non-pulsating corrosive liquids, grindingIdeal for handling corrosive liquids and high temperature liquids.

Material: Pump Body: SS316 stainless steel / Hastelloy / special plastics / other alloys

Gear: PEEK engineering plastics containing high-performance special filling materials (one-time injection molding)

Shaft material: High-precision industrial zirconia ceramics

Magnetic drive material: PPS plastic fully coated rare earth magnet

Seal material: : Fluorine rubber (Viton)/ethylene propylene diene rubber (EPDM)/ Teflon (PTFE)/Fluorosilicone rubber (FVMQ)/Neoprene rubber (CR)/Indium wire (In)

Gear type: Spur gear: better for differential pressure >7bar

Helical gear: lower operational noise and fewer pressure fluctuation

Life expectancy: more than 20000 hours with clean fluid

Recommended inlet filter: Recommended 400 mesh

Inlet vacuum: -0.85Bar(related to the motor speed)

Differential pressure: 20Bar(with pure water fluid)

Pressure withstanding: 20-100Bar （ODM）

Motor: High/low temperature resistant brushless DC motors, stepper motors, servo motors, shielded motors and other specified motors Form (DC/AC)

Operational noise(at a speed of 2000rpm): Spur gear <55dB, helical gear <45dB at 2000rpm

Working Speed: 1~4000rpm

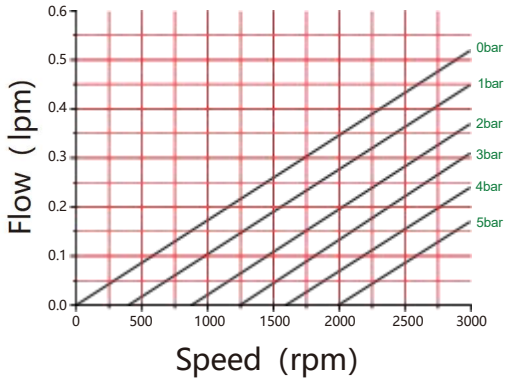
Acceptable fluid temperature: -120~150°C

Maximum dry running time: 1600rpm (1 hour)

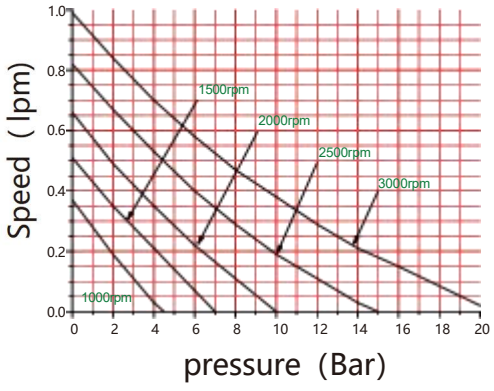
Import and export connection thread specifications: NPT 1/8”,or other customized sizes

PRODUCT PERFORMANCE CURVE (WATER、20℃)

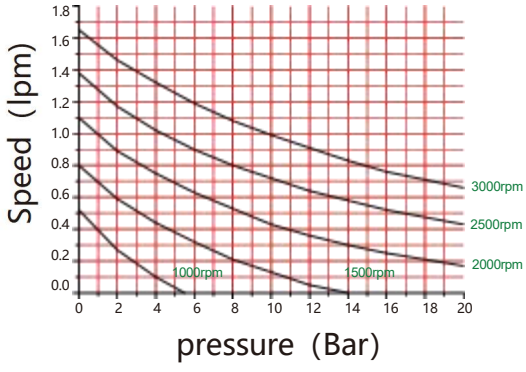
NP020 performance curve



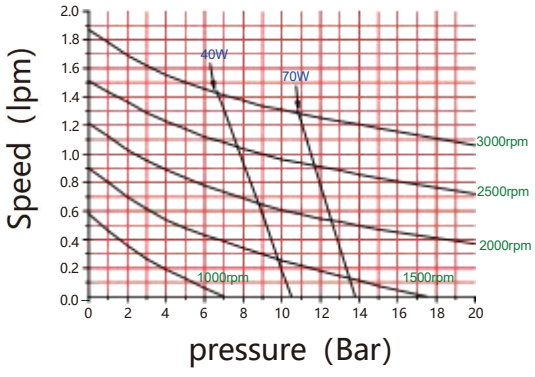
NP039 performance curve



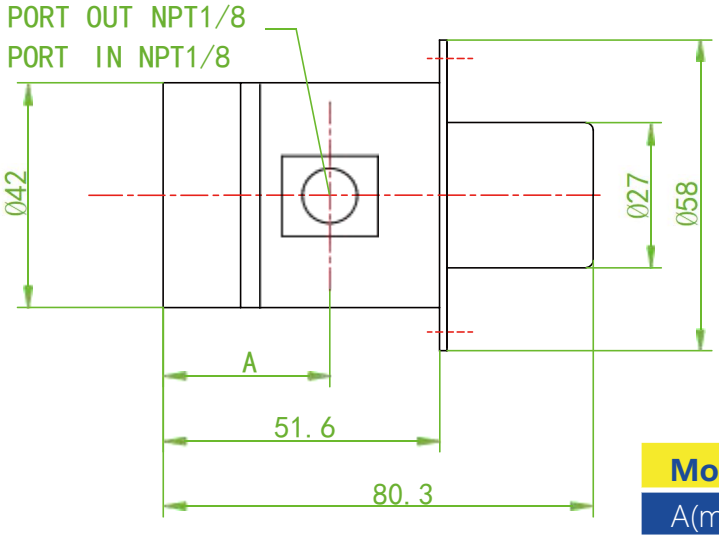
NP060 performance curve

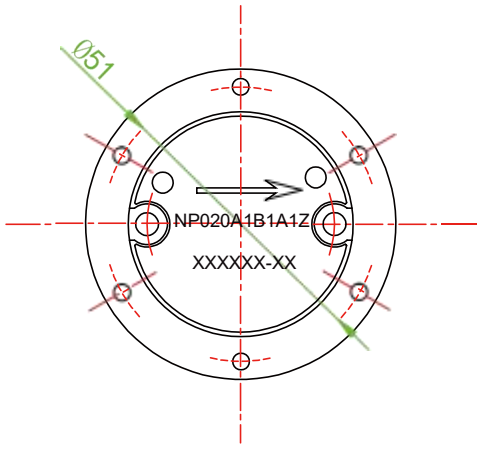


NP070 performance curve



PUMP DIMENSION





Model	NP020	NP039	NP060	NP070
A(mm)	31.1	34.3	37.7	39.5

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NP – 51 SERIES APECIFICATIONS

51 SERIES INCLUDES NP100, NP120, NP170, NP190

NP series miniature magnetic gear pump adopts magnetic drive design, with only O-ring static seal and no dynamic seal.Risk of failure. Gears and bearings made of PEEK material containing special filling materials, high-precision industrial ceramic shafts,One- time injection molded gears and special gear profile design with independent intellectual property rights ensure the NP series productsThe product has ultra-high service life and wear resistance. You are transporting small flow, high pressure, non-pulsating corrosive liquids, grindingIdeal for handling corrosive liquids and high temperature liquids.

Material: Pump Body: SS316 stainless steel / Hastelloy / special plastics / other alloys

Bearing/gear materials: PEEK engineering plastics containing high-performance special filling materials (one-time injection molding)

Shaft material: High-precision industrial zirconia ceramics

Magnetic drive material: PPS plastic fully coated rare earth magnet

Seal material: Fluorine rubber (Viton)/ethylene propylene diene rubber (EPDM)/Teflon (PTFE)/Fluorosilicone rubber (FVMQ)/Neoprene rubber (CR)/Indium wire (In)

Gear type: Spur gear: better for differential pressure >7bar

Helical gear: lower operational noise and fewer pressure fluctuation

Life expectancy: more than 20000 hours with clean fluid

Recommended inlet filter: Recommended 400 mesh

Inlet vacuum: -0.85Bar(related to the motor speed)

Differential pressure: 20Bar(with pure water fluid)

Pressure withstanding: 20-100Bar（ODM）

Motor: High/low temperature resistant brushless DC motors, stepper motors, servo motors, shielded motors and other specified motors Form (DC/AC)

work noise: Spur gear <55dB, helical gear <45dB at 2000rpm

Working Speed: 1 ~ 4000rpm

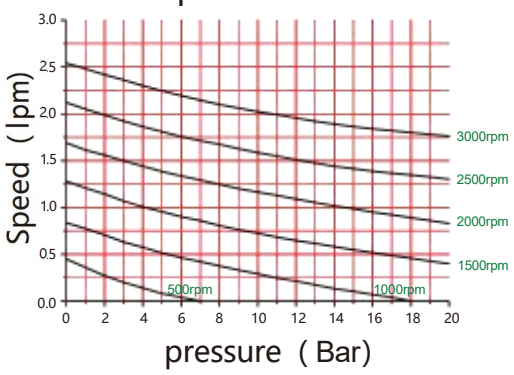
Acceptable fluid temperature: -120~150°C

Maximum dry running time: 1500rpm (1 hour)

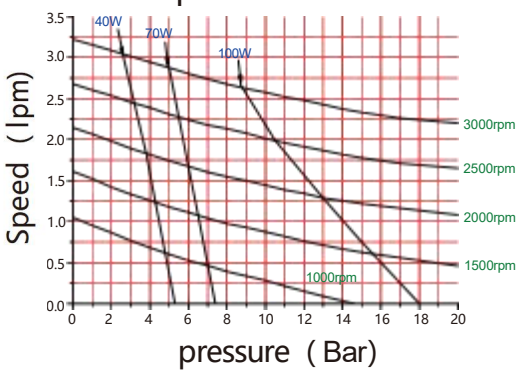
PImport and export connection thread specifications: NPT 1/4",or other customized sizes

PRODUCT PERFORMANCE CURVE (WATER、20℃)

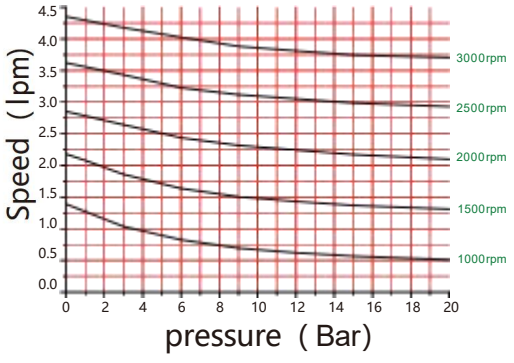
NP100 performance curve



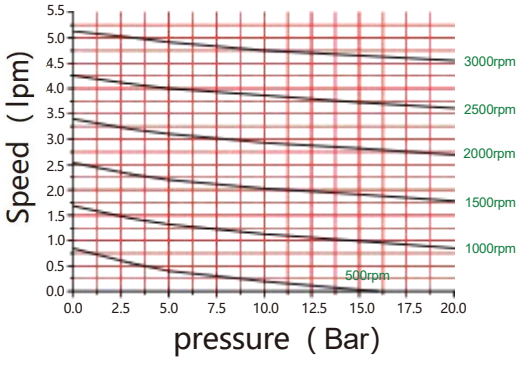
NP120 performance curve



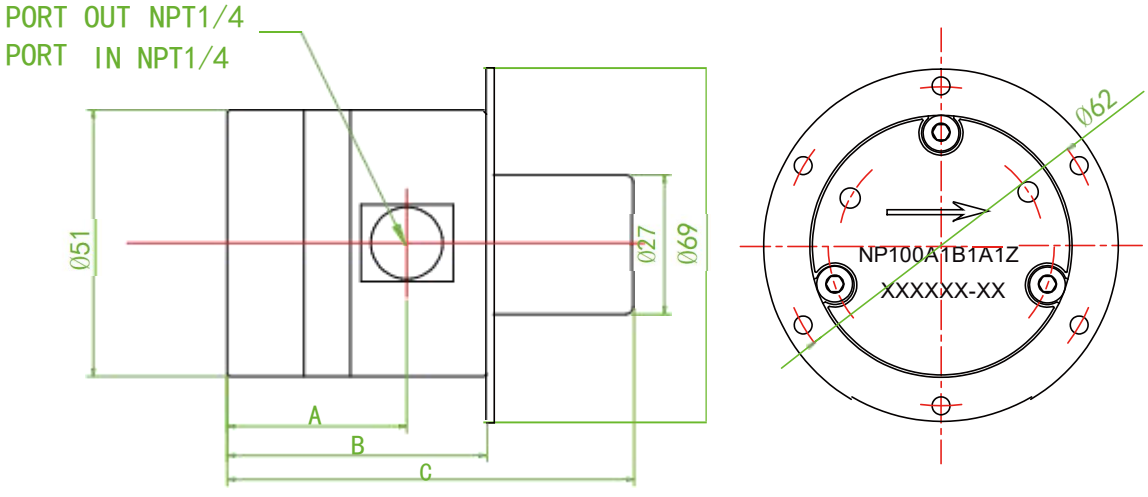
NP170 performance curve



NP190 performance curve



PUMP DIMENSION



MODEL	NP100	NP120	NP170	NP190
A (mm)	35	37	46.6	48.6
B (mm)	50.6	50.6	62.2	62.2
C (mm)	79.3	79.3	90.9	90.9

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Shanghai Super Fluid Industrial Co.,Ltd.

AddAress Room 602, 18 Feet Building, No. 597 Langao Road, Putuo , Shanghai, China
Web site www.s-fluid.com
Tel +86-13764319509
Email lqx@s-fluid.com

NP–60 SERIES APECIFICATIONS

60 SERIES INCLUDES NP240, NP350

NP series miniature magnetic gear pump adopts magnetic drive design, with only O-ring static seal and no dynamic seal. Risk of failure. Gears and bearings made of PEEK material containing special filling materials, high - precision industrial ceramic shafts,One-time injection molded gears and special gear profile design with independent intellectual property rights ensure the NP series productsThe product has ultra-high service life and wear resistance . You are transporting small flow, high pressure, non-pulsating corrosive liquids, grinding Ideal for handling corrosive liquids and high temperature liquids .

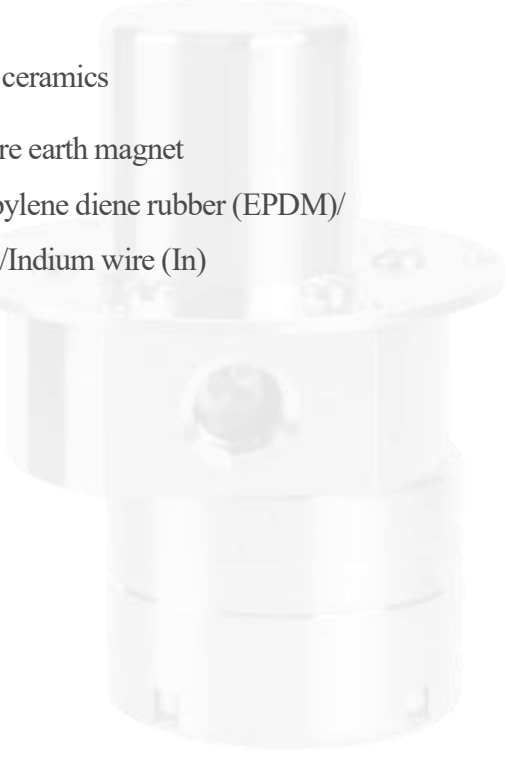
Material: Pump Body: SS316 stainless steel / Hastelloy / special plastics / other alloys

Bearing/gear materials: PEEK engineering plastics containing high-performance special filling materials (one-time injection molding)

Shaft material: High-precision industrial zirconia ceramics

Magnetic drive material: PPS plastic fully coated rare earth magnet

Seal material: Fluorine rubber (Viton)/Ethylene propylene diene rubber (EPDM)/ Teflon (PTFE)/Fluorosilicone rubber (FVMQ)/Neoprene rubber (CR)/Indium wire (In)



gear form： spur gear

Life expectancy: more than 20000 hours with clean fluid

Recommended inlet filter: Recommended 400 mesh

Inlet vacuum: -0.85Bar(related to the motor speed)

Differential pressure: 20Bar(water as medium)

Pressure withstanding: 30-100Bar （ODM）

Motor： High/low temperature resistant brushless DC motors, stepper motors, servo motors, shielded motors and other specified motors Form (DC/AC)

work noise: Spur gear <64dB at 2000rpm

Working Speed: 1~4000rpm

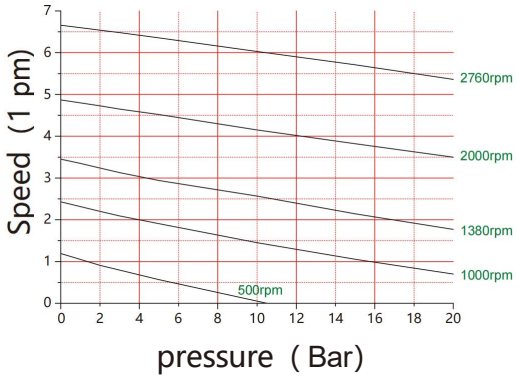
Acceptable fluid temperature： -120~150°C

Maximum dry running time: 1000rpm (1 hour)

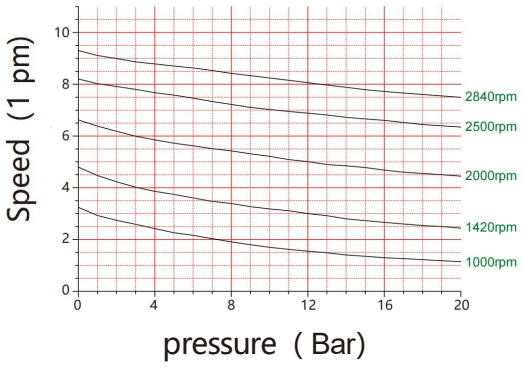
Ports: NPT 3/8",or other customized sizes

PRODUCT PERFORMANCE CURVE（WATER、20℃）

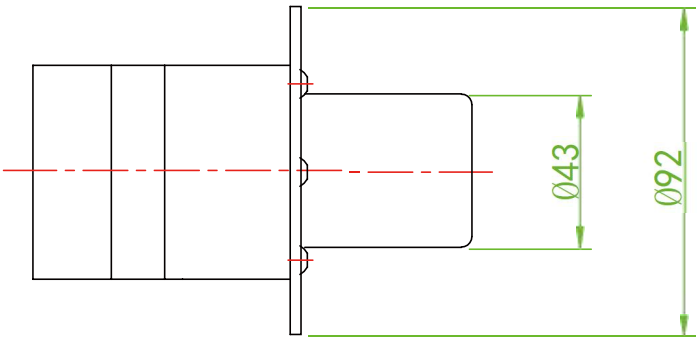
NP240 performance curve

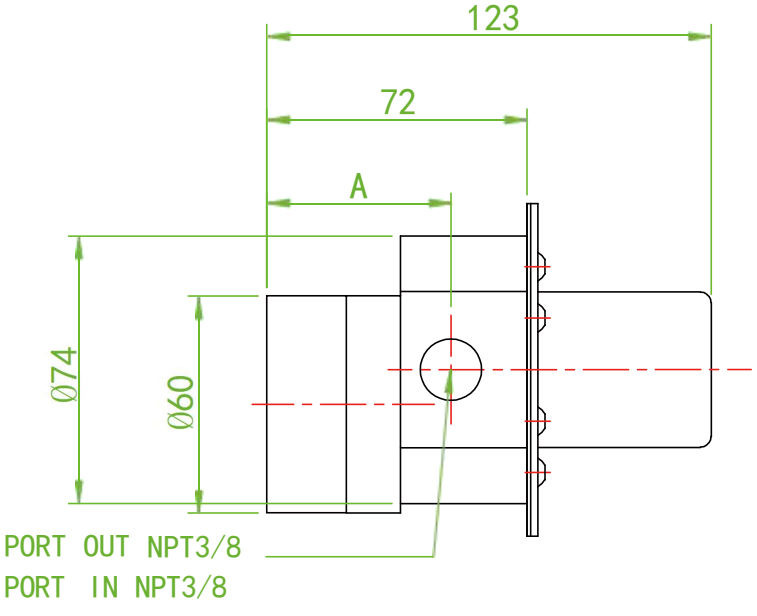


NP350 performance curve

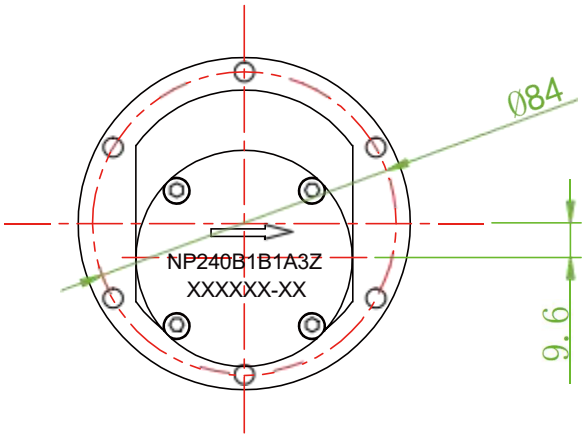


PUMP DIMENSION





Model	NP240	NP350
A（mm）	51	56



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Shanghai Super Fluid Industrial Co.,Ltd.

AddAress Room 602, 18 Feet Building, No. 597 Langao Road, Putuo , Shanghai, China
Web site www.s-fluid.com
Tel +86-13764319509
Email lqx@s-fluid.com

NP－98 SERIES APECIFICATIONS

98 series includes NP400, NP600, NP900, NP1200, NP1700

NP series miniature magnetic gear pump adopts magnetic drive design, with only O-ring static seal and no dynamic seal. Risk of failure. Gears and bearings made of PEEK material containing special filling materials, high - precision industrial ceramic shafts, One-time injection molded gears and special gear profile design with independent intellectual property rights ensure the NP series productsThe product has ultra-high service life and wear resistance . You are transporting small flow, high pressure, non-pulsating corrosive liquids grindingIdeal for handling corrosive liquids and high temperature liquids .

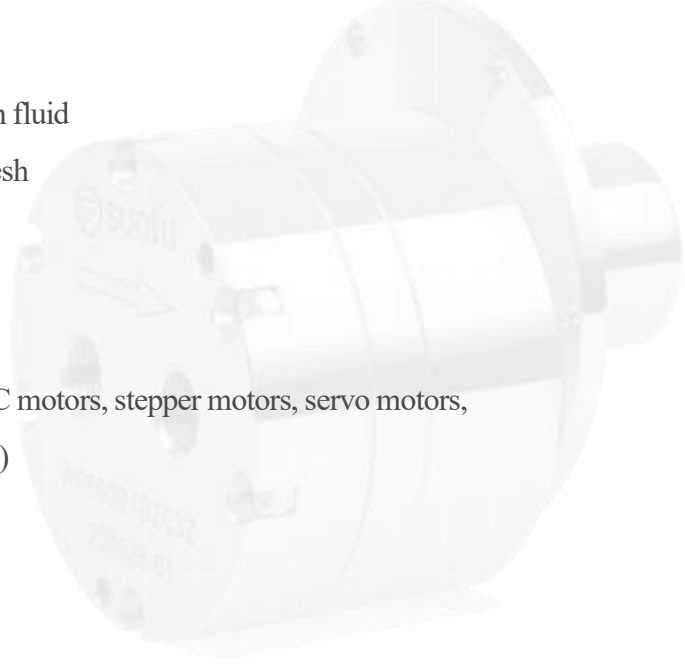
Material： Pump Body： SS316 stainless steel / Hastelloy / other alloys

Bearing/gear materials: PEEK engineering plastics containing high-performance special filling materials (one-time injection molding)

Shaft material： High-precision industrial zirconia ceramics

Magnetic drive material: PPS plastic fully coated rare earth magnet

Seal material: Fluorine rubber (Viton)/Ethylene propylene diene rubber (EPDM)/ Teflon (PTFE)/Fluorosilicone rubber (FVMQ)/Indium wire (In)/Energy storage seal (PT+SS316)/ Neoprene (CR)



gear form： spur gear

Life expectancy： more than 20000 hours with clean fluid

Recommended inlet filter： Recommended 400 mesh

Inlet vacuum：-0.85Bar(related to the motor speed)

Differential pressure：20Bar(water as medium)

Pressure withstanding：40-100Bar（ODM）

Motor：High/low temperature resistant brushless DC motors, stepper motors, servo motors, shielded motors and other specified motors Form (DC/AC)

work noise：Spur gear <65dB at 2000rpm

Working Speed：1~4000rpm

Acceptable fluid temperature：-120~150°C

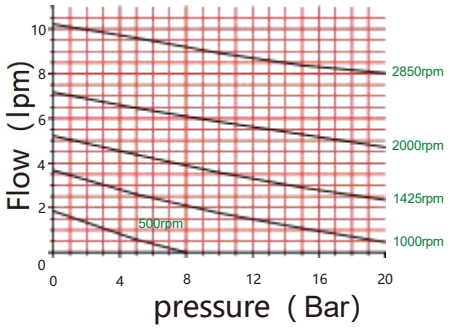
Maximum dry running time： Dry running is not recommended

Import and export connection thread specifications： NPT 3/8”, NPT 3/4”, or other customized sizes

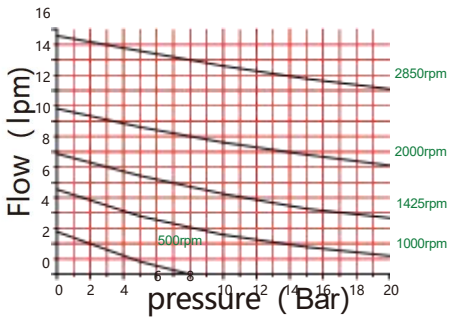
filter： It is recommended to install a 400 mesh filter at the inlet. If it is a closed circulation system, it is recommended that the filter be installed at the pump. exit. The flow area of??the filter should be large enough not to affect normal liquid flow.

PRODUCT PERFORMANCE CURVE（WATER、20℃）

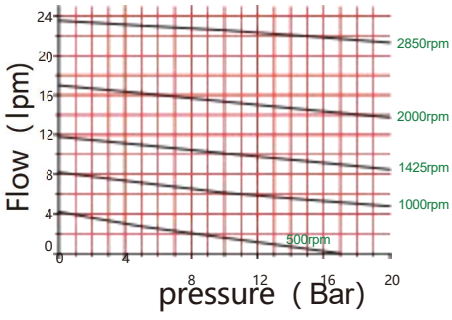
NP400 performance curve



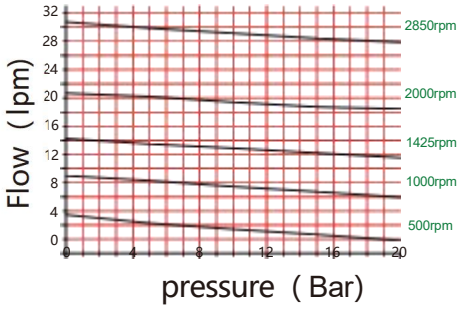
NP600 performance curve



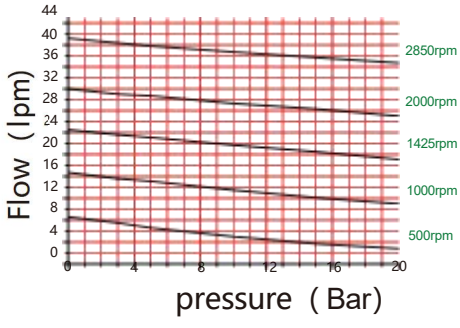
NP900 performance curve



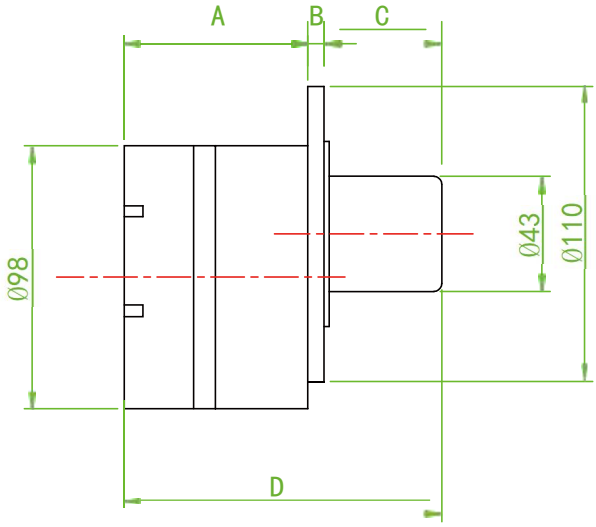
NP1200 performance curve

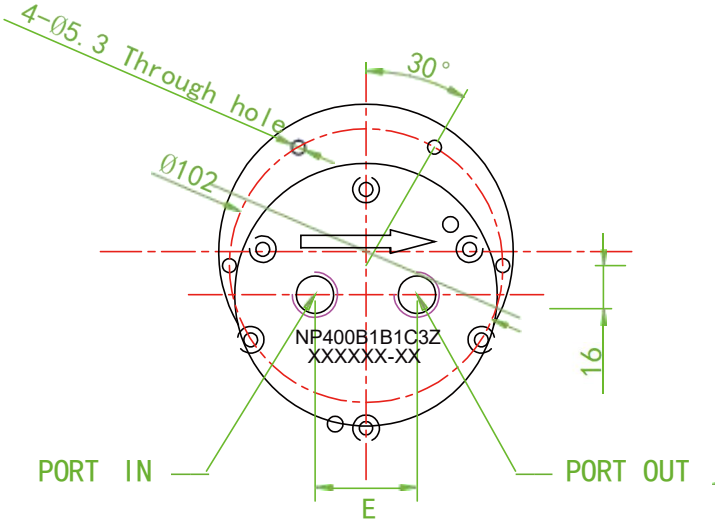


NP1700 performance curve



PUMP DIMENSION





Model	NP400	NP600	NP900	NP1200	NP1700
A (mm)	68.5	68.5	90.5	90.5	90.5
B (mm)	6	7	7	7	7
C (mm)	44	42	42	42	42
D (mm)	118.5	117.5	139.5	139.5	139.5
E (mm)	38	38	46	46	46

Model	NP400	NP600	NP900	NP1200	NP1700
port in	NPT3/8	NPT3/8	NPT3/4	NPT3/4	NPT3/4
port out	NPT3/8	NPT3/8	NPT3/4	NPT3/4	NPT3/4

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Shanghai Super Fluid Industrial Co.,Ltd.

AddAres Room 602, 18 Feet Building, No. 597 Langao Road, Putuo , Shanghai, China
Web site www.s-fluid.com
Tel +86-13764319509
Email lqx@s-fluid.com

NP-106 SERIES APECIFICATIONS

106 SERIES INCLUDES NP2600

NP series miniature magnetic gear pump adopts magnetic drive design, only O-ring static seal, no dynamic seal Risk of failure. Gears and bearings made of PEEK materials containing special filling materials, industrial ceramic shafts for bearings, One-time injection molded gears and special gear profile design with independent intellectual property rights ensure the NP series products The product has ultra-high service life and wear resistance. It is suitable for small flow, high pressure and non-pulsating wear and abrasive liquids in pipelines. Ideal for handling corrosive liquids and high temperature liquids.

Material: Pump Body: SS316 stainless steel / Hastelloy / other alloys

Bearing/gear materials: PEEK engineering plastics containing high-performance special filling materials (one-time injection molding)

Shaft material: High-precision industrial zirconia ceramics

Magnetic drive material: PPS plastic fully coated rare earth magnet

Seal material: Fluorine rubber (Viton)/Ethylene propylene diene rubber (EPDM)/ Teflon (PTFE)/ Fluorosilicone rubber (FVMQ)/Indium wire (In)/Neoprene rubber (CR)

gear form： spur gear

Life expectancy: more than 20000 hours with clean fluid

Recommended inlet filter: Recommended 400 mesh

Inlet vacuum: -0.85Bar(related to the motor speed)

Differential pressure: 20Bar(water as medium)

Pressure withstanding: 40-100Bar（ODM）

Motor： High/low temperature resistant brushless DC motors, stepper motors, servo motors, shielded motors and other specified motorsForm (DC/AC)

work noise: Spur gear <64dB at 2000rpm

Working Speed: 1~4000rpm

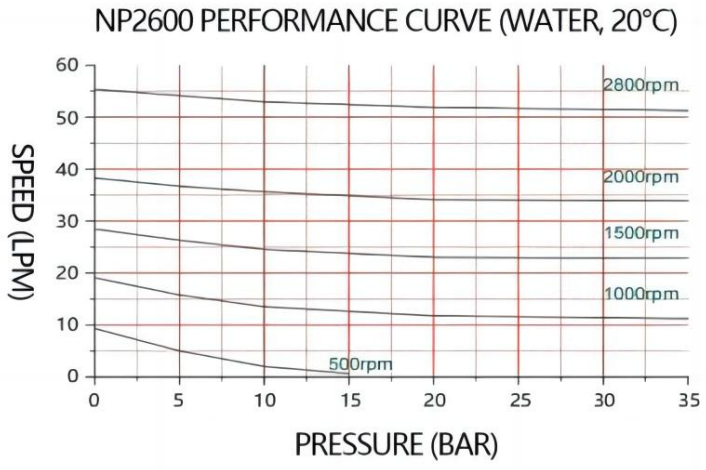
Acceptable fluid temperature： -120~150°C

Maximum dry running time: 1000rpm (1 hour)

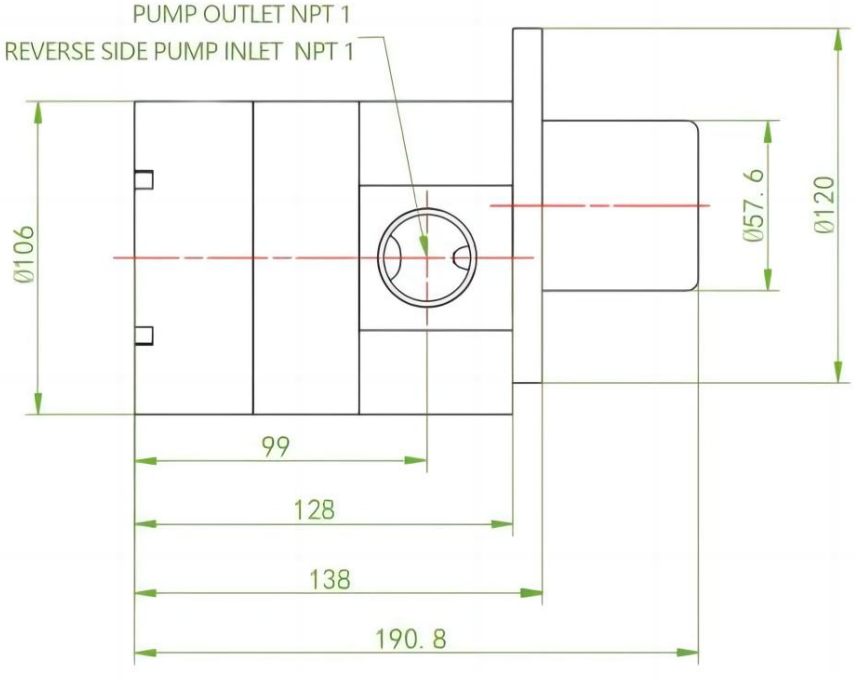
Ports: NPT 3/8",or other customized sizes

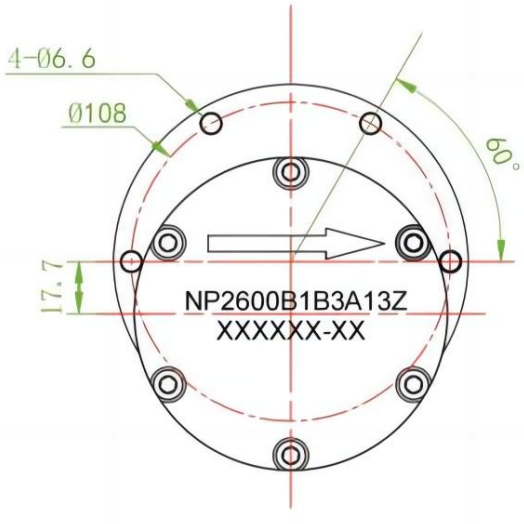
filter: It is recommended to install a 400 mesh filter at the inlet. If it is a closed circulation system, it is recommended that the filter be installed at the pump.exit. The flow area of?? the filter should be large enough not to affect normal liquid flow.

PRODUCT PERFORMANCE CURVE (WATER、20℃)



PUMP DIMENSION





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Shanghai Super Fluid Industrial Co.,Ltd.

AddAres Room 602, 18 Feet Building, No. 597 Langao Road, Putuo , Shanghai, China
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AddAres Room 602, 18 Feet Building, No. 597 Langao Road, Putuo , Shanghai, China

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