JONSN
PUMPS & TECHNOLOGY



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CE

DP 系列精密级齿轮计量泵操作手册

DP Series Precision Gear metering pump Operation Manual

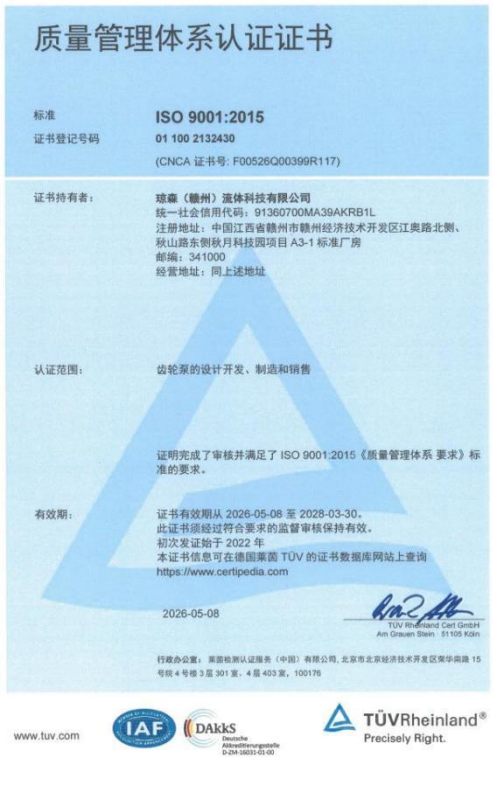
请妥善保管此手册。
Please keep this manual properly.
请确保先阅读此产品的使用说明，再按照其中的要求安装及使用此产品。
Be sure to read the instructions of this product first, and then follow the instructions to install and use this product.
本手册适用于：DP 系列精密级微型磁力齿轮泵
This manual applies to: DP Series Precision Gear metering pump

琼森（赣州）流体科技成功取得 TÜV 莱茵 **ISO 9001:2015 质量管理体系认证证书**！ 经由德国莱茵权威严苛审核，公司齿轮泵的设计开发、制造及全流程销售服务，全面符合 ISO9001 国际质量管理标准。 此次认证是对我们生产管控、研发体系、品控流程的权威认可，未来我们将持续以标准化、精细化质量管理，严控每一台齿轮泵品质，为客户提供稳定可靠的流体输送解决方案。

Jonsn (Ganzhou) Fluid Technology Co., Ltd. has successfully obtained the ISO 9001:2015 Quality Management System Certificate issued by TÜV Rheinland!

After rigorous and authoritative audits conducted by TÜV Rheinland Germany, the company's design & development, manufacturing, and full-process sales services of gear pumps fully comply with the international quality management standard ISO 9001.

This certification serves as authoritative recognition of our production control, R&D system and quality control procedures. Moving forward, we will continue to implement standardized and refined quality management, strictly control the quality of every single gear pump, and deliver stable and reliable fluid transfer solutions for customers worldwide.



质量管理体系认证证书

标准 ISO 9001:2015
证书登记号码 01 100 2132430
(CNCA 证书号: F00526Q00399R117)

证书持有者：
琼森（赣州）流体科技有限公司
统一社会信用代码：91360700MA39AKRB1L
注册地址：中国江西省赣州市赣州经济技术开发区江奥路北侧、秋山路东侧秋月科技园项目 A3-1 标准厂房
邮编：341000
经营地址：同上述地址

认证范围：齿轮泵的设计开发、制造和销售

证明完成了审核并满足了 ISO 9001:2015《质量管理体系 要求》标准的要求。

有效期：
证书有效期从 2026-05-08 至 2028-03-30。
此证书须经过符合要求的监督审核保持有效。
初次发证始于 2022 年
本证书信息可在德国莱茵 TÜV 的证书数据库网站上查询
https://www.certipedia.com

2026-05-08
TÜV Rheinland Cert GmbH
Am Grauen Stein 51105 Köln

行政办公室：莱茵检测认证服务（中国）有限公司，北京市北京经济技术开发区荣华南路 15 号院 4 号楼 3 层 301 室、4 层 403 室，100176

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Quality Management Systems Certificate

Standard ISO 9001:2015
Certificate Registr. No. 01 100 2132430
(CNCA Certificate No.: F00526Q00399R117)

Certificate Holder:
Jonsn (Ganzhou) Fluid Technology Co., Ltd
Unified Social Credit Code: 91360700MA39AKRB1L
Registration Address: Building A3-1, Qiuyue Science and Technology Park, East Qiushan Road, North Jiangao Road, Ganzhou Economic Technological Development Zone, Ganzhou City, 341000 Jiangxi, P. R. China
Operation Address: same as above

Scope: Design, Development, Manufacturing and Sales of Gear Pumps

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 <Quality management system-Requirements> are met.

Validity:
The certificate is valid from 2026-05-08 until 2028-03-30.
It remains valid subject to satisfactory surveillance audits.
First certification 2022
This certificate information can be searched on Certipedia website https://www.certipedia.com

2026-05-08
TÜV Rheinland Cert GmbH
Am Grauen Stein 51105 Köln

Administrative office: TÜV Rheinland China Ltd., Room 301, 3F and Room 403, 4F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological Development Area, Beijing, 100176, P. R. China

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警告告诫注意

Warning and Note



警告：表示可能会引起人身伤害或设备损坏及其他安全事故。

Warning: indicates that could cause personal injury or damage to equipment and other accidents etc.



告诫：必须认真遵守，以免损坏设备。

Caution: must be observed to avoid damage to the device.

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责任声明 / Statement of Responsibility

所有安装、使用、检修、维护人员，必须完整通读本手册后方可作业。

All personnel responsible for installation, operation, maintenance and repair shall fully read this manual before work.



设备到货开箱后，先检查外包装完整性、泵体外观有无磕碰损伤，并对照装箱单清点配件；若配件缺失、泵体破损，禁止上机使用，由此产生的泄漏、设备损坏、人身伤害，制造商不承担相关责任。

After receiving the equipment, check the packaging integrity and pump appearance, and verify all spare parts against the packing list. Do not install damaged pumps or pumps with missing accessories. The manufacturer shall not be liable for equipment damage or personal injury caused by such issues.

使用方有义务遵守本手册全部安全规范，同时符合国家、行业相关安全生产法律法规；违规操作引发的故障与安全事故，责任由使用方自行承担。

Users shall comply with all safety requirements in this manual and relevant national industrial safety regulations. The user shall bear all liabilities for failures or accidents caused by non-compliant operation.

本泵仅适用于设备订货时约定的介质、温度、压力、粘度等相关工况；若需变更使用条件，必须提前取得制造商或官方授权代理商书面许可，未经许可不得投入使用。

This pump is suitable only for the operating conditions—such as the medium, temperature, pressure, and viscosity—specified at the time of the equipment order. Any change to the operating conditions requires prior written approval from the manufacturer or an officially authorized distributor; the pump must not be put into operation without such approval.

严禁超出手册规定工况、介质范围使用设备；超范围使用造成泵体腐蚀、卡死、泄漏、报废及人员受伤，制造商不予质保、不承担责任。

Do not operate the pump beyond the working scope specified in this manual. The manufacturer shall not provide warranty or take liability for pump damage or personal injury caused by out-of-spec operation.

1. 安全须知

1.1 用户注意事项

泵投入使用前，请务必阅读此使用说明书和装配说明书！

1.2 企业内部安全操作说明

企业有内部的安全操作规范。

特别是生产线/机器上带有诸如泵/泵站等部件，随机带有泵/泵站的使用说明书和装配说明书。以下章节关于泵的说明将有助于制订您本公司的内部使用规范。

另外，您可以从 JONSN 公司订购每种泵的服务维护手册。JONSN 公司也为维护保养提供培训。

1.3 正确使用

此计量泵用以计量各种不同粘度的液体介质。

输送介质必须有润滑性，水不能作为被计量的介质。仅在泵特性数据表允许范围内使用该泵。

为了安全起见，不允许超出范围使用泵，也不得另作他用，否则可能对操作者造成伤害。

为了正确的操作此设备，也必须遵守使用说明书和装配说明书中的规定，特别是遵照维修说明。

1.4 人员资格

必须由经过培训的人员对泵进行使用、操作和维修保养。只允许由电气专业技术人员（电工）执行电气元器件上的作业 。

1.5 启动规范

在安装后，每次重新使用前，必须进行一次试运转，包括检查工艺参数和所有安全装置。

1.6 操作和维护

未经 JONSN 公司的同意，不得对泵进行改动或改装，否则质量保证将失效。

泵外部表面的生产侧相关变更（例如通过加工机床的紧固装置或热处理设备）对质量不产生负面影响，因此提出退货投诉不成立。

由于热处理过程所出现的泵的金属部件的颜色差异对质量也不产生负面影响，因此提出退货投诉也不成立。必须由经过培训的人员进行检验、维护和维修作业。

如果需要进行专业化维护和维修作业，使用 JONSN 公司的辅助设备。定购相应的产品目录。只使用 JONSN 公司的原装部件。

1.7 安全注意事项

本安全注意事项适用于任何从事泵的安装、调试、操作和

1. Safety Instructions

1.1 User Notes

Before putting the pump into service, please read this operation manual and assembly manual thoroughly.

1.2 Internal Enterprise Safety Operation Specifications

Enterprises shall establish internal safety operation specifications. In particular, production lines and machinery equipped with components such as pumps or pumping stations are supplied with corresponding operation and assembly manuals for such equipment. The following sections regarding pump instructions will assist you in formulating your company's internal usage specifications. In addition, service and maintenance manuals for each pump model are available for order from JONSN. JONSN also provides training courses on pump maintenance and upkeep.

1.3 Proper Use

This metering pump is designed for metering liquid media with various viscosities. The conveyed medium must have lubricating properties; water shall not be used as the metered medium. The pump may only be operated within the allowable range specified in the pump characteristic data sheet. For safety purposes, operating the pump beyond the specified range or using it for unintended purposes is prohibited, as such misuse may cause injury to operators. Proper operation of this equipment also requires strict compliance with the provisions in the operation manual and assembly manual, especially the maintenance instructions.

1.4 Personnel Qualification

The pump shall be operated, used, and maintained by trained personnel. Work on electrical components shall only be performed by certified professional electrical technicians (electricians).

1.5 Startup Specifications

After installation and prior to each restart, a test run must be conducted, including inspection of all process parameters and safety devices.

1.6 Operation and Maintenance

No alteration or modification shall be made to the pump without prior written consent from JONSN; otherwise, the quality warranty will be voided. Production-related changes to the external surface of the pump (such as modifications via machine tool fastening devices or heat treatment equipment) do not adversely affect product quality, and return complaints on such grounds will not be accepted. Color variations on the pump's metal parts resulting from heat treatment processes also do not impair product quality, and corresponding return complaints will similarly be rejected. Inspection, maintenance, and repair work must be carried out by trained personnel. For professional maintenance and repair operations, only auxiliary equipment provided by JONSN shall be used. Please place orders via the corresponding product catalog. Only genuine original spare parts from JONSN shall be used for replacement.

1.7 Safety Precautions

维修保养作业的人员。

请认真学习企业制订的内部操作规范并遵守下面的安全注意事项和说明：

请使用所要求的个人劳动防护用品，例如防护眼镜，劳保手套和工作服。

· 严禁未经允许的人员进入设备/机器区域。

· 在接触泵、冲洗剂、密封介质或油、油脂和其它化学品时，请重视并遵守该产品的安全规定。（阅读安全数据表上的说明）

· 在接触热泵及泵的运输、加热、冲洗和密封介质时，要特别当心！

· 旋转驱动零部件必须用不透碎片的防护盖板封闭。

· 在工作的过程中，严禁取下任何位于旋转部件上方的防护罩以及必要的其它防护盖板。

当对泵进行维护及修理前须对驱动部分断电且驱动部分完全停止运转。

注意停机的规定！

确保驱动关闭状态，防止未经允许的开机。

1.8 带有磁力联轴器的泵的安全注意事项

危险！强磁场！

· 严禁带有医疗仪器（例如心脏起搏器）的人员在磁力联轴器旁工作。

人员必须与磁力联轴器保持 3m 安全间距。



危险！

在使用危险品或可燃液体时，只有在对其进行压力监控时才允许工作压力超过磁力联轴器的最高允许压力。可以将压力监控器装在封闭腔接口上。如需要，请与 JONSN 公司联系。

磁力联轴器最高允许压力被刻印在磁力联轴器的外壳上。在超过允许的压力时，必须立即停止泵，并在必要时切断泵的进出口。

挤伤危险！

· 通过强大的永久性磁力，泵（也就是说内部磁铁）和外部磁铁将产生吸引力。不得在配板（1）和支座（2）之间放置物体。

These rules apply to all personnel involved in pump installation, commissioning, operation and maintenance. Study your company's internal operation specifications and comply with the following safety requirements:

· Wear required personal protective equipment (PPE), e.g. safety goggles, work gloves and workwear.

· Unauthorized personnel are prohibited from entering equipment/machinery areas.

· Observe product safety regulations when handling pumps, flushing agents, sealing media, oils, greases and other chemicals. (Refer to safety data sheets.)

·Exercise extreme caution when handling hot pumps and their conveying, heating, flushing and sealing media.

·Rotating drive components must be enclosed by shatterproof protective covers.

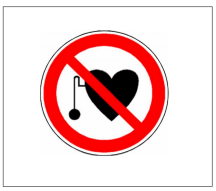
· Never remove guards over rotating parts or other necessary protective covers during operation.

· Before maintenance and repair, de-energize the drive and wait for it to stop completely. Follow shutdown procedures and secure the drive against unauthorized restart.

1.8 Safety Precautions for Pumps with Magnetic Couplings

DANGER! Strong magnetic field!

· Personnel with medical implants (e.g. pacemakers) must not work near magnetic couplings. A minimum safety distance of 3 m must be maintained.



DANGER!

· When handling hazardous or flammable liquids, operating pressure may exceed the coupling's maximum allowable pressure only under continuous pressure monitoring. A pressure monitor can be fitted to the sealed chamber port. Contact JONSN if required.

· The maximum allowable pressure is engraved on the magnetic coupling housing. If the pressure limit is exceeded, stop the pump immediately and isolate the inlet and outlet if necessary.

Crushing hazard

· Strong permanent magnetism attracts the inner and outer magnets. Never place objects between mounting plate (1) and

・可磁化的物体也将被磁铁强烈吸引。
所以不得用手将可磁化的物体靠进磁铁。

注意！

・务必避免磁力联轴器之间的相互碰撞。
・不得将磁力联轴器放置在计算机、数据载体和其它电子元器件附近。
・使磁力联轴器保持远离钟表、可磁化的工具和测量工具。
・在运行期间也绝不允许磁力联轴器之间相互接触。在任何情况下都应当使用原装的 JONSN 公司驱动装置。
・外部和内部转子必须以同样的转速运转。不得出现差速，否则可能导致不允许的发热并由此产生异常的磁铁功率损失。
必须有监控-例如可以通过检查输送流量来进行监控。

1.9 电加热计量泵安全注意事项：

危险！

・计量泵必须接地。可以使用一个泵-固定螺栓。
・必须通过一个适合的保险器保护电加热器。
・电热器未安装好不允许通电，只有在安装好后才可以通电。
・不允许在不带温度传感器和调节器的情况下使用电加热器加热。调节器必须保证不超过根据特性数据页规定的允许温度。
以下适用于带有 PT100 热电阻：
PT100 热电阻必须连接在独立的附加温度监控上。当超过根据特性数据页规定的允许温度时，必须将电加热器关断电源。

⚠ ・避免液体接触电加热器的连接电缆。必须对该电缆进行适当地布线。定期检查计量泵连接端/密封端的密封性以防止介质泄漏。
・请务必避免异物钻进入加热传送带中。
・不得使电缆受挤压和折弯。
・只有在有防接触保护情况下，泵才允许被加热。
・电加热器的温度的设定值必须低于缓冲密封液沸点。（要求缓慢加热）。
・安装电加热器时，使在加热器和泵之间具有足够的热传导。加热器体必须固定靠放在泵体上。在运行期间必须定期检查该项。必须避免由于电加热器的过度膨胀而造成变形

⚠
・安装温度传感器保证在传感器和泵之间具有足够的热传导，安装时使用导热油脂。
・在电加热器上作业时，必须断电并采取防止再次接通的安全措施。

support (2).

• Magnetizable objects are strongly attracted. Do not hold such objects near the magnets by hand.

Notice

• Avoid impact between coupling halves.
• Keep couplings away from computers, data storage and other electronic devices.
• Keep couplings away from clocks, magnetizable tools and measuring instruments.
• Coupling halves must never contact each other during operation. Always use genuine JONSN drive units.
• Inner and outer rotors must run at identical speed. Speed differential causes overheating and abnormal magnet power loss. Monitoring (e.g. delivery flow check) is mandatory.

1.9 Safety Precautions for Electrically Heated Metering Pumps

DANGER

• The pump must be earthed, e.g. via a mounting bolt.
• Protect the electric heater with a suitable fuse.
• Do not energize the heater until fully assembled.
• Heaters must be used with temperature sensors and regulators to stay within the temperature limit in the data sheet.

⚠ • For PT100 sensors: connect to an independent backup temperature monitor that cuts power when the limit is exceeded.
• Keep liquid away from heater cables. Route cables properly and regularly check pump/seal tightness against leakage.
• Prevent foreign matter from entering the heating belt.
• Do not crush or bend cables.
• Heating is only permitted with contact protection in place.
• Set heater temperature below the boiling point of the buffer sealing liquid; heat up slowly.

⚠ • Ensure good heat transfer between heater and pump body; the heater must sit firmly on the pump and be checked regularly. Avoid deformation from excessive heater expansion.
• Apply thermal grease when installing temperature sensors for sufficient heat transfer.
• Disconnect power and lock out against re-energization before working on the heater.

1.10 设备/机器详细安全注意事项

・在泵特性数据表 中的数基于泵的机械性能。所以用户需对输送介质（必要时，冲洗介质和密封介质）进行适当的测试以确保使用了允许的运行数据，以防止介质自身或介质的运行条件不当产生的风险。

・冲洗和密封

冲洗和密封介质可能危害健康。请穿戴相应的防护服装。

・计量，加热，

・泵的转向需与计量介质流向的相配合。流向方向弄反会导致泵及设备的损坏。

・调整外部控制器、外部变频器或内部变频器的手动控制器。

・必须确保泵、密封材质和泵材质间相互兼容性。如有需要，请向 JONSN 泵售后服务部门询问。泵是通过所输送的介质进行润滑的，空运转是绝对要避免的，否则可能损伤泵或导致泵材质的燃烧。

・为了泵的运转必须保证已安装所有泵密封件（特别是板之间的 O-型圈）。

・过大扭矩将损害泵(最大允许的驱动扭矩在泵特性数据页中见章节 8.1.)。

可以通过安装过载离合器防止过高的驱动扭矩。

・如果处理或操作不当会导致泵的部件损伤或损坏。并且如果在有压力的情况下，泵的主动轴可能会被顶出，随之热的物料也会喷出。所以如果要操作泵或在泵的附近作业一定要提前将系统卸压，然后拆掉保护罩，拆开泵与减速箱之间的连接，松开连接传动轴的锁止螺母。

2. 机器平面布置图/标识

2.1 机器一览

参阅泵的尺寸图（如果在 JONSN 公司的供货范围内）。只要未随机供货，就可以向 JONSN 公司索取。

2.2 标记

铭牌：

・泵编号

・输送流量

“JONSN"

・物品编号

3. 装配/拆卸

3.1 包装标签

机器和机器配件均采用稳固的包装。

包装上标有英文字母标识及国际通用符号

要注意这些符号，从而正确处理和运输被包装的机器。

标签定义

・定单号

1.10 Detailed Equipment Safety Precautions

• Data in the pump characteristic sheet reflects mechanical performance only. Users must verify the suitability of conveyed, flushing and sealing media, and confirm operating parameters to avoid media-related risks.

• Flushing and sealing media may be hazardous; wear appropriate protective gear.

• Pump rotation must match the metering flow direction. Reverse flow will damage the pump and system.

• Adjust external controllers, external/internal frequency converters and manual controls properly.

• Verify material compatibility among pump body, seals and conveyed media. Consult JONSN after-sales service if in doubt. The pump is lubricated by the conveyed medium; dry running is strictly prohibited — it may damage the pump or cause combustion of pump materials.

• All seals (especially O-rings between plates) must be installed before operation.

• Excessive torque damages the pump (max allowable drive torque in Section 8.1 of the data sheet). Install an overload clutch for protection.

• Improper handling may damage components. Under pressure, the drive shaft may eject and hot media may spray out. Before working on or near the pump: depressurize the system, remove the guard, disconnect the pump from the gearbox, and loosen the drive shaft locknut.

2. Machine Layout & Marking

2.1 Machine Overview

Refer to the pump dimensional drawing (if included in JONSN supply). Request a copy from JONSN if not delivered with the unit.

2.2 Markings

Nameplate includes:

• Pump serial number

• Delivery flow rate

• "JONSN" brand

• Article number

3. Assembly & Disassembly

3.1 Packaging Labels

Machines and accessories are delivered in robust packaging marked with English text and international symbols. Observe all markings for proper handling and transport. Label

・重量（毛重）
・地址

使用的标识:		
意义	颜色	符
强磁场!	黑色	
朝上放置	黑色	
易碎	黑色	
保持干燥	黑色	
重心	黑色	
提升点	黑色	
包装密度	黑色	
这里不得使用叉车	黑色	

3.2 泵的安全运输

危险！

・只允许通过专业运输人员进行泵站和重型泵的搬运作业。
・重型泵配有起吊螺纹孔。这些孔仅适用于泵的运输。
・只允许使用起重器对重型泵进行搬运。
・不必采用起重器具搬运的泵，必须由 2 个人承担搬运。
请穿戴劳保手套和穿安全工作鞋。
・倾覆危险（例如使用带垂直驱动器的泵站时）！
使用适当的起重配件。请勿停留在倾翻区域。
・遵守有关起重力和承载力的国家法规。
如果希望得到技术支持，请向 JONSN 泵售后服务部门询问。

带有磁力联轴器的泵：

危险！强磁场

严禁带有医疗仪器（例如心脏起搏器）
的人员接近泵或磁力联轴器的零件。
人员必须与磁力联轴器保持 3m 安全间距。

3.3 装配/拆卸概述

必须通过 JONSN
泵售后服务部门或用户自己符合资质的人员进行泵的安装、校直和连接的作业。如果用户决定由自己的人员进行安装 JONSN 公司可为这些人员提供相关培训。此外还可以在 JONSN 公司订购维修服务手册。

3.4 装配过程

・在发货时，进出口孔用防护塞封闭，以便防止外物进入泵体。只有在泵与管道连接前才许拆下这些防护塞。请保

information: order number, gross weight, shipping address.

Sign:		
Meaning	Color	TAG
High magnetic field	Black	
UP	Black	
Fragile	Black	
Keep dry	Black	
Gravity center	Black	
Lifting point	Black	
Packing density	Black	
No forklift	Black	

3.2 Safe Pump Transport

DANGER

・Pump stations and heavy pumps must be handled by professional logistics personnel.
・Lifting tapped holes on heavy pumps are for transport only. Use dedicated lifting gear.
・Pumps not requiring lifting gear must be carried by two persons. Wear work gloves and safety footwear.
・Tip-over hazard (e.g. vertical-drive pump stations). Use suitable lifting accessories. Do not stand in the tipping zone.
・Comply with national lifting and load regulations. Contact JONSN after-sales for technical support.

Magnetic coupling pumps – DANGER: Strong magnetic field Personnel with medical implants (e.g. pacemakers) must keep a minimum 3 m safety distance from the pump and coupling parts.

3.3 General Assembly/Disassembly Rules

Installation, alignment and piping work must be performed by JONSN after-sales service or qualified in-house personnel. JONSN provides operator training and service manuals for order.

3.4 Assembly Procedure

・Inlet/outlet ports are sealed with protective plugs at delivery. Remove only immediately before piping connection; retain

管好这些防护塞，以便在今后可能发生拆卸时使用。
・小心地搬运和安装泵。

危险

・倾覆危险（例如使用带垂直驱动器的泵站时）！
必须将保持座或框架拧紧规定的固定孔上，以防止泵站倾翻。
・安装 DP 系列泵站时，必须在规定的固定孔上用螺栓拧紧保持座和框架，以便使泵站运行时不晃动。
・在将泵装到设备/机器上之前，必须确认所有在泵之前的设备（例如罐体、管道、阀门）都已仔细清洁过了。脏物、金属颗粒等都将导致泵的损伤。
・在输送介质的进出口孔，及密闭液体的孔必须采表面密封件。不得用特氟龙带或麻线对螺纹进行密封！
・不允许不带介质使泵空运转。
所以在有需要时，在将泵装上设备/机器之前，用润滑油（例如矿物油）来手动转动泵。
JONSN 泵在发货时已经带有润滑介质。
运行期间将通过输送介质对泵润滑。
・在泵带有电磁离合器时，将建议用与产品兼容的封闭介质填充封闭隔离腔。

3. 5 拆卸过程

危险！

・在将泵从设备/机器中移除、拆除轴端密封圈或电磁离合器、或者松开封闭隔离腔的螺栓时，必须确保，所有连接管路已经没有压力并且被关闭。
・确保磁力联轴器在卸下之前没有压力。
・松开密封螺栓可能导致密闭液体飞溅或气体泄漏。
请穿合适的防护工作服。为了尽可能排出积聚的气体，必须先将密封室上部的螺纹堵头打开。

3. 6 设备部件/备件的存放

如果泵在安装前需要存放较短的时间，必须保持泵的原有包装。
泵/零部件的存放必须满足下列条件：
・室内温度 15 至 25° C
・相对湿度 最大 60%
对已安装的尚未投入使用的泵，上述条件也适用。
如将泵入库保存，应在进口加注低粘度的矿物油。应当在驱动轴以某方向慢速旋转时一直加注矿物油，直到在出口处可见矿物油流出为止。
接着采用适当的防护塞将进出口孔及冲洗孔（如果有的话）封闭。在任何情况下，都必须采用不含有树脂的防锈油或类似材料在泵体上涂抹油脂。

4. 投入使用

plugs for future use.
• Handle the pump with care.

DANGER – Tip-over hazard Secure the mounting base/frame to the specified fixing bolts to prevent tipping and vibration (mandatory for DP series pump stations).

• Thoroughly clean all upstream equipment (tanks, pipes, valves) before installation. Contamination will damage the pump.
• Use face seals for process and sealing fluid ports. **Do not seal threads with PTFE tape or hemp.**
• Do not run the pump dry. Pre-lubricate manually with mineral oil if required. JONSN pumps are delivered pre-lubricated; the conveyed medium provides lubrication during operation.
• For magnetic coupling pumps, fill the containment chamber with a product-compatible barrier fluid.

3.5 Disassembly Procedure

DANGER

• Depressurize and shut off all lines before removing the pump, dismantling seals/couplings or loosening chamber bolts.
• Depressurize magnetic couplings before removal.
• Loosening seal bolts may cause barrier fluid splash or gas release. Wear protective clothing. Vent gas first via the top plug of the seal chamber.

3.6 Component & Spare Parts Storage

• Keep in original packaging for short-term storage.
• Storage conditions: ambient temperature 15–25 °C, relative humidity ≤ 60 % (applies also to installed but unused pumps).
• For long-term storage: flush with low-viscosity mineral oil while turning the shaft slowly, seal all ports with plugs, and coat the pump body with resin-free anti-rust oil.

4.1 概述

仅用户厂家经过培训的人员或 JONSN 泵售后服务部门可对泵投入使用。

每次重新投入使用前，检查驱动的转向(允许的转向见泵前的方向箭头)。错误的转向将导致泵的损伤和设备损坏。

投入使用前，请检查泵进出口管道连接处是否正常无泄漏(必要时，还有冲洗接口）的密封性。

4.2 带有填料箱的泵

・开车前，先检查填料箱的预紧力

・如果是更换了密封材料或首次使用泵，请用 8.2 中的表格或泵特性数据表中拧紧扭矩预紧填料箱螺栓及固定螺母，然后松开并按照章节 8.2 中的表格或泵特性数据表中拧紧扭矩重复拧紧。

・泵运转初期要经常检查（如需要，校正）填料箱的预紧力，(在开始几个小时中检查二至三次）在填料箱密封稳定后在持续运行期间每周进行一次检查。请遵守章节 1.10 中安全注意事项。

・若填料箱有多个螺栓时，必须依次轻微拧紧，以便避免填料箱倾斜。

・带有弹簧预夹紧的密封件，必须参看图纸中的装配方法和泵上的标示。 "

5. 维护

5.1 维护的执行

必须通过 JONSN 泵售后服务部门或通过受过本公司培训的人员进行维修保养。

JONSN 泵工厂提供维修服务。

如果用户厂家决定由本公司的人员进行维修保养，JONSN 公司将为这些人员提供相关培训。此外还可以在 JONSN 公司为每种泵订购维修服务手册。

危险！

在电机或其它电气部件（例如电加热器）上作业时，必须断电并采取防止再次接通的安全措施。

・定期检查泵进口（必要时冲洗接口）管道接口和轴密封件的密封性在流体加热的泵上，定期检查加热接口的密封性能。

・如果轴密封上的泄漏过多且填料箱密封件不可再扭紧.必须根据备件目录更换密封件（如密封环、密封圈）（可以向 JONSN 公司索取备件目录）。

必须检查泵轴在密封处是否损坏，并在必要时进行更换。

带有磁力联轴器的泵就以垂直位置从设备上安装或拆卸。

危险！

泵需在垂直位置上安装。安装必须牢固且不斜。需要考虑到在装配/拆卸时存在较大磁力的因素。

4. Commissioning

4.1 General

Commissioning may only be performed by trained personnel or JONSN after-sales service.

• Verify rotation direction (follow the arrow on the pump front) before every restart. Reverse rotation damages the pump and system.

• Check all pipe connections for leaks before startup.

4.2 Pumps with Stuffing Box

• Check stuffing box preload before startup.

• For new or re-packed seals: pre-tighten to the torque in Section 8.2 / data sheet, release, then retighten to the same value.

• Inspect preload 2–3 times in the first operating hours, then weekly once stabilized. Observe Section 1.10 safety rules.

• Tighten multiple bolts evenly and sequentially to avoid misalignment.

•For spring-preloaded seals, follow the assembly drawing and pump markings.

5. Maintenance

5.1 Maintenance Execution

Maintenance must be carried out by JONSN after-sales service or trained in-house staff. Factory repair service is available.

DANGER

• Disconnect and lock out power before working on motors or electrical components (e.g. electric heaters).

• Regularly check pipe connections and shaft seals for leaks; check heating circuit seals on fluid-heated pumps.

• Replace seals if leakage is excessive and cannot be corrected by retightening. Inspect the pump shaft at the seal for damage.

• Install/remove magnetic coupling pumps vertically, securely and squarely. Account for strong magnetic forces during handling.

5.2 备件

订购备件时需要下列信息：

- JONSN 泵编号(刻印在泵体上)
- 根据备件目录的准确名称（可向 JONSN 公司索取备件目录）
- 件数
- JONSN 物品编号(刻印在泵体上)。

6. 故障

可通过 JONSN 公司的泵售后服务部门或通过客户自己经过培训的人员排除发生的故障。另外可以将带有损坏说明的泵发回给 JONSN 公司的泵售后服务部门进行维修。

7. 回收处置

危险!

不正确地回收处置带有或不带有产品残留物的泵时所存在的健康危险。

- 必须根据法律法规对泵和泵组件进行回收处置。密封圈也必须根据其材料进行回收处置。
- 这些组件应须交由相应的废弃物管理公司进行处置。
- 操作人员必须根据材料生产者的说明和法律法规，正确处理泵工作过程中所残留的产品残留物。

8. 表格

8.1 泵的特性数据页

泵的特性数据页将同本使用说明书和装配说明书一起寄出。

8.2 填料密封的拧紧扭矩

- DP 系列计量泵的步骤

注意!

首先用下面表格内的扭矩对固定螺母或螺栓进行预夹紧，然后松开并按照说明重复拧紧。

5.2 Spare Parts

Required ordering information:

- JONSN pump serial number (engraved on body)
- Exact part name per spare parts catalog
- Quantity
- JONSN article number (engraved on body)

6. Troubleshooting

Faults may be rectified by JONSN after-sales service or trained customer personnel. Alternatively, return the pump to JONSN with a damage description for repair.

7. Disposal

DANGER – Health hazard from improper disposal of residue-contaminated pumps

- Dispose of pumps, components and seals in accordance with applicable laws and material classifications.
- Use authorized waste management companies.
- Handle process residues per material manufacturer instructions and legal requirements.

8. Tables

8.1 Pump Characteristic Data Sheet

Supplied together with these operating and assembly instructions.

8.2 Packing Seal Tightening Torque

Procedure for DP series metering pumps: Notice – Pre-tighten fixing nuts/bolts to the table torque, release, then retighten as instructed.

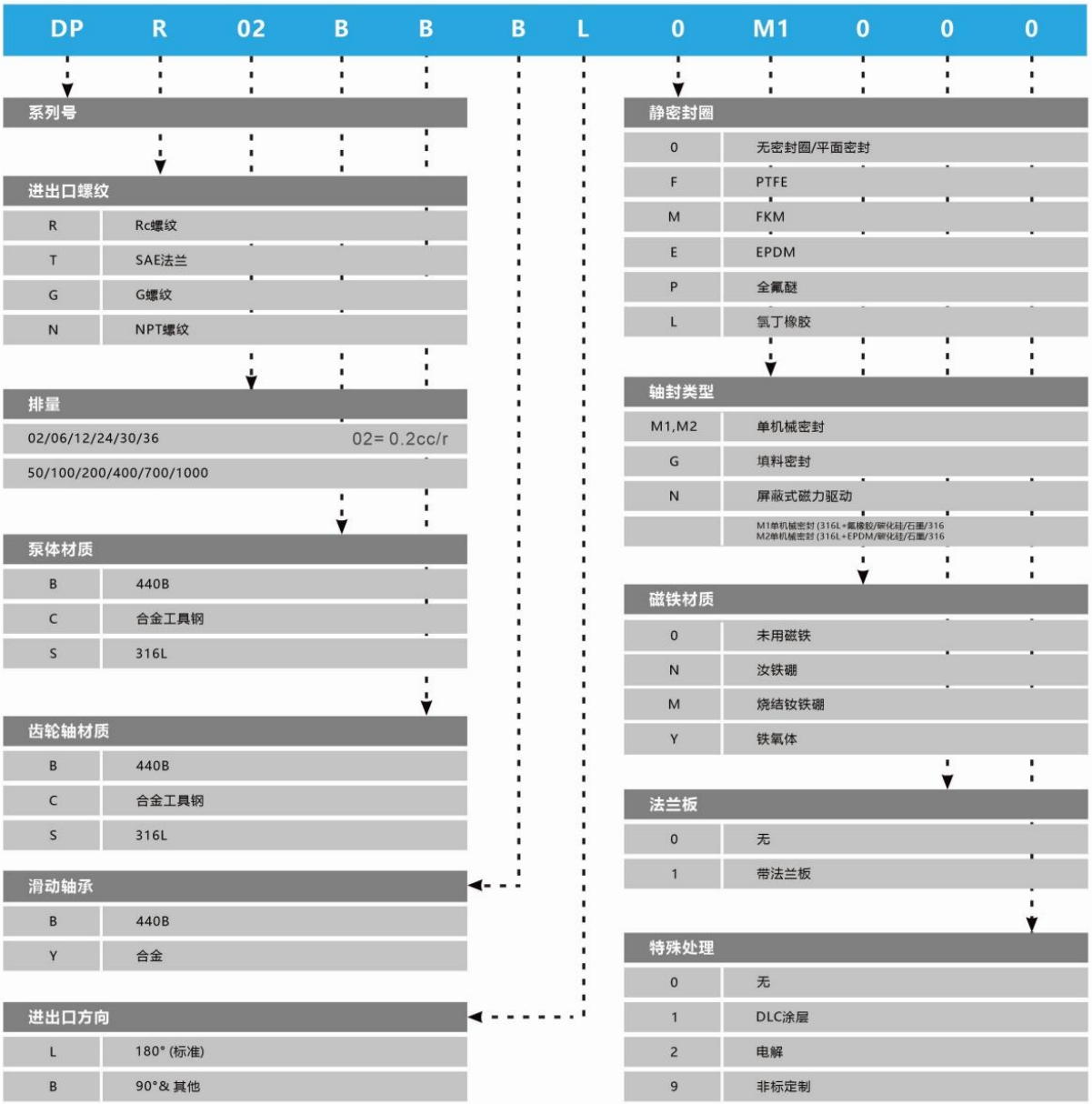
9. 技术参数 / Technical Parameters

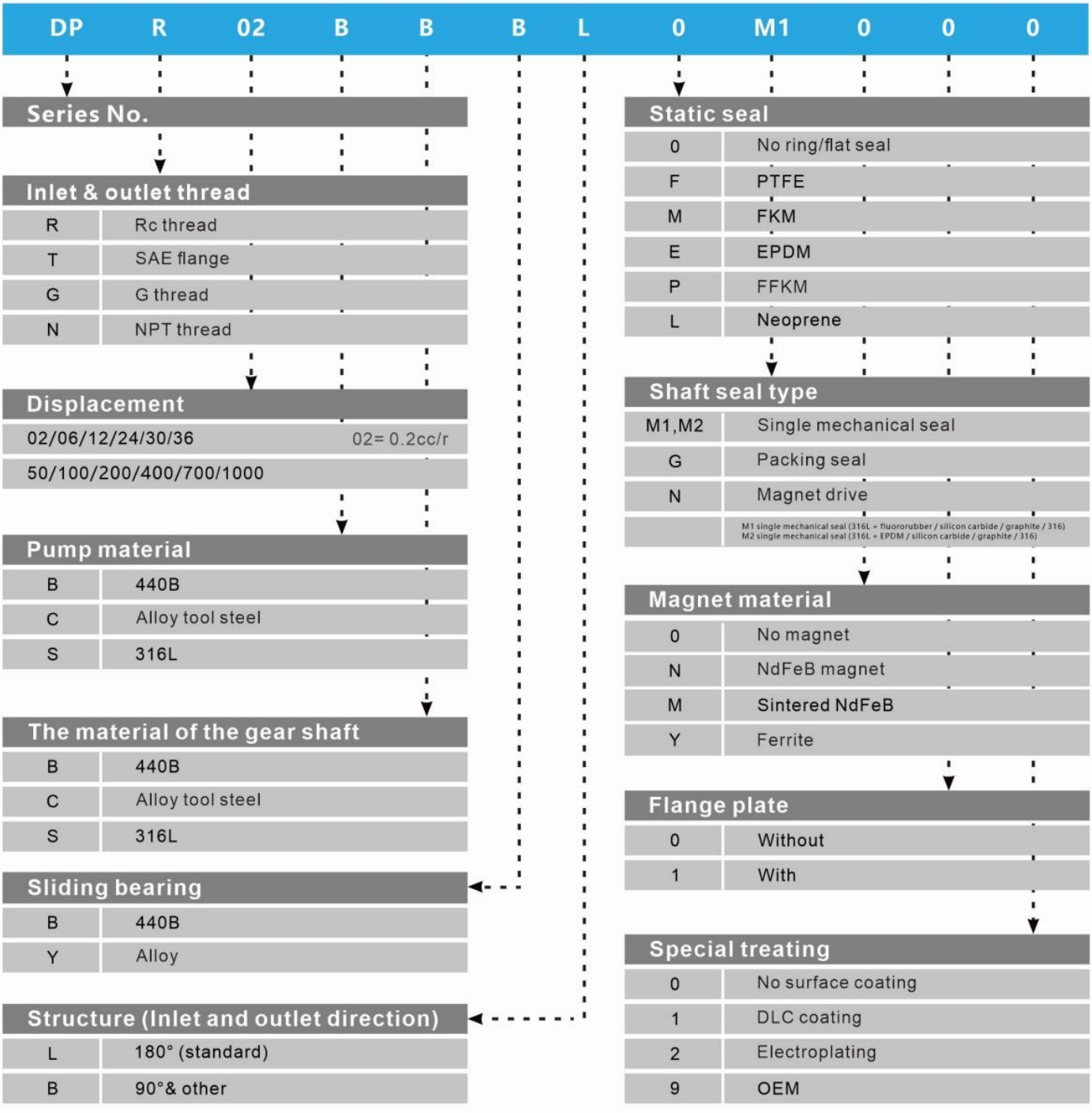
技术参数（Parameter）	规格说明（Specification）
排量（Displacement）	0.2 / 0.6 / 1.2 / 2.4 / 3 / 3.6 / 5 / 10 / 20 / 30 / 40 / 70 / 100 cc/rev
粘度范围（Viscosity range）	100~500,000 mPa·s
速度范围（Speed range）	0-100 rpm
流量范围（Flow rate range）	排量 × 电机转速（Displacement × motor speed rpm）
出口压力（Outlet pressure）	70 bar（1000 psi）（取决于粘度 / depends on viscosity）
温度范围（Temperature range）	-18° C ~ 150° C；其他温度可定制，可选装电加热和热电偶系统（Other temperatures can be customized; optional electric heating and thermocouple system available）
密封（Seals）	机械密封、唇型密封、填料密封、磁力联轴器密封（Mechanical seals, lip seals, packing seals, magnetic coupling seals）

DP 系列扭紧力
Tightening Torque for DP Series Pumps

型号 Model（cc/r）	DPR02	DPR06	DPR12	DPR24	DPR30	DPR36	DPT50	DPT100	DPT200	DPT300	DPT400	DPT700	DPT1000
泵盖端拧紧扭矩 Pump cover end tightening torque (Nm)	15	15	15	15	15	15	30	30	30	30	30	30	30
主动轴端拧紧扭矩 Drive shaft end tightening torque (Nm)	6	6	6	6	6	6	10	10	10	10	10	10	10

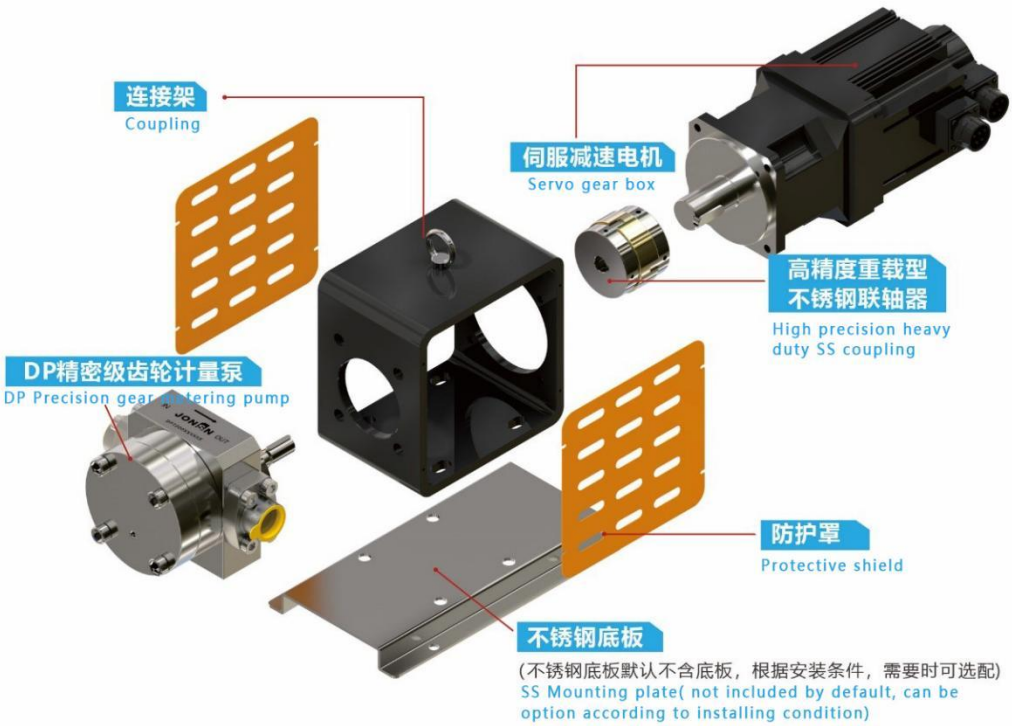
10.配置编码/ Configure encoding




DP R 02 B B B L 0 M1 0 0 0
Series No.
Inlet & outlet thread
R Rc thread
T SAE flange
G G thread
N NPT thread
Displacement
02/06/12/24/30/36 02= 0.2cc/r
50/100/200/400/700/1000
Pump material
B 440B
C Alloy tool steel
S 316L
The material of the gear shaft
B 440B
C Alloy tool steel
S 316L
Sliding bearing
B 440B
Y Alloy
Structure (Inlet and outlet direction)
L 180° (standard)
B 90°& other
Static seal
0 No ring/flat seal
F PTFE
M FKM
E EPDM
P FFKM
L Neoprene
Shaft seal type
M1,M2 Single mechanical seal
G Packing seal
N Magnet drive
M1 single mechanical seal (316L + fluororubber / silicon carbide / graphite / 316)
M2 single mechanical seal (316L + EPDM / silicon carbide / graphite / 316)
Magnet material
0 No magnet
N NdFeB magnet
M Sintered NdFeB
Y Ferrite
Flange plate
0 Without
1 With
Special treating
0 No surface coating
1 DLC coating
2 Electroplating
9 OEM

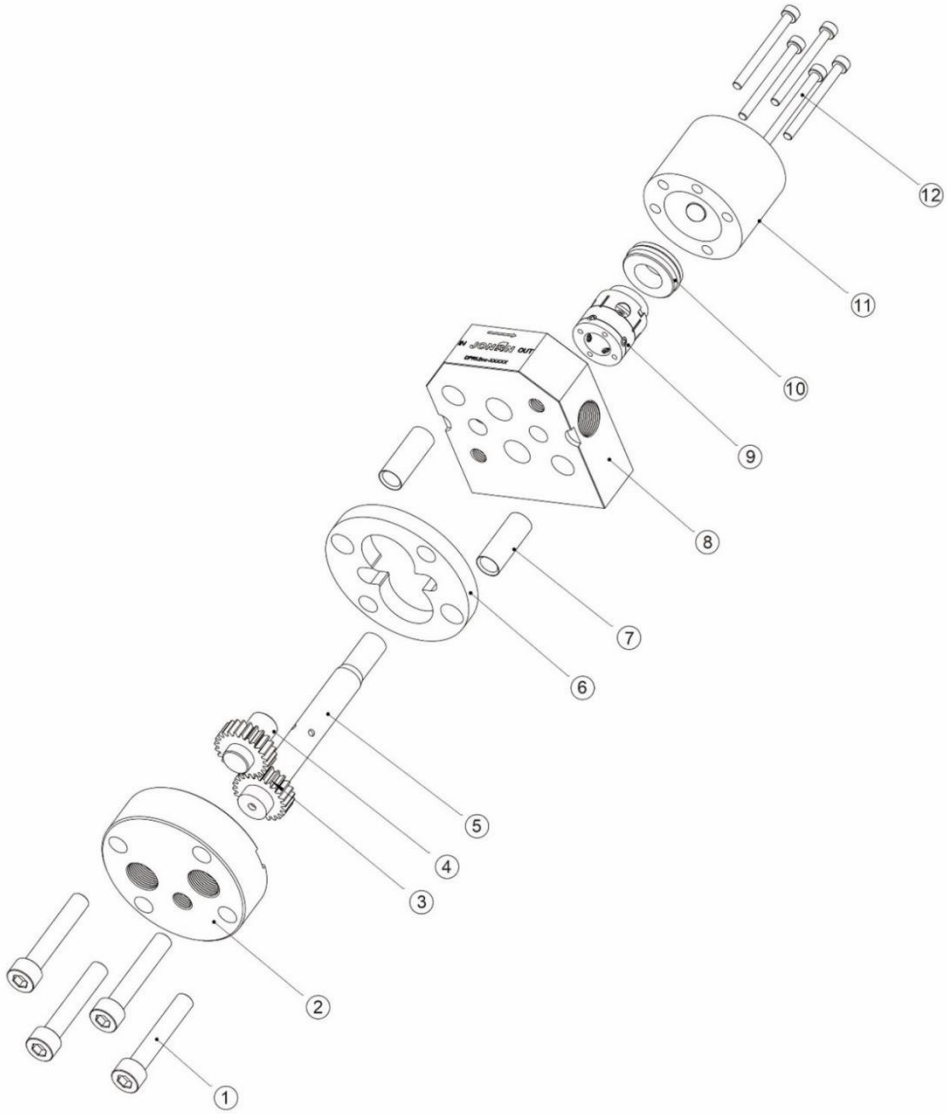
11. 分解图/ Exploded View





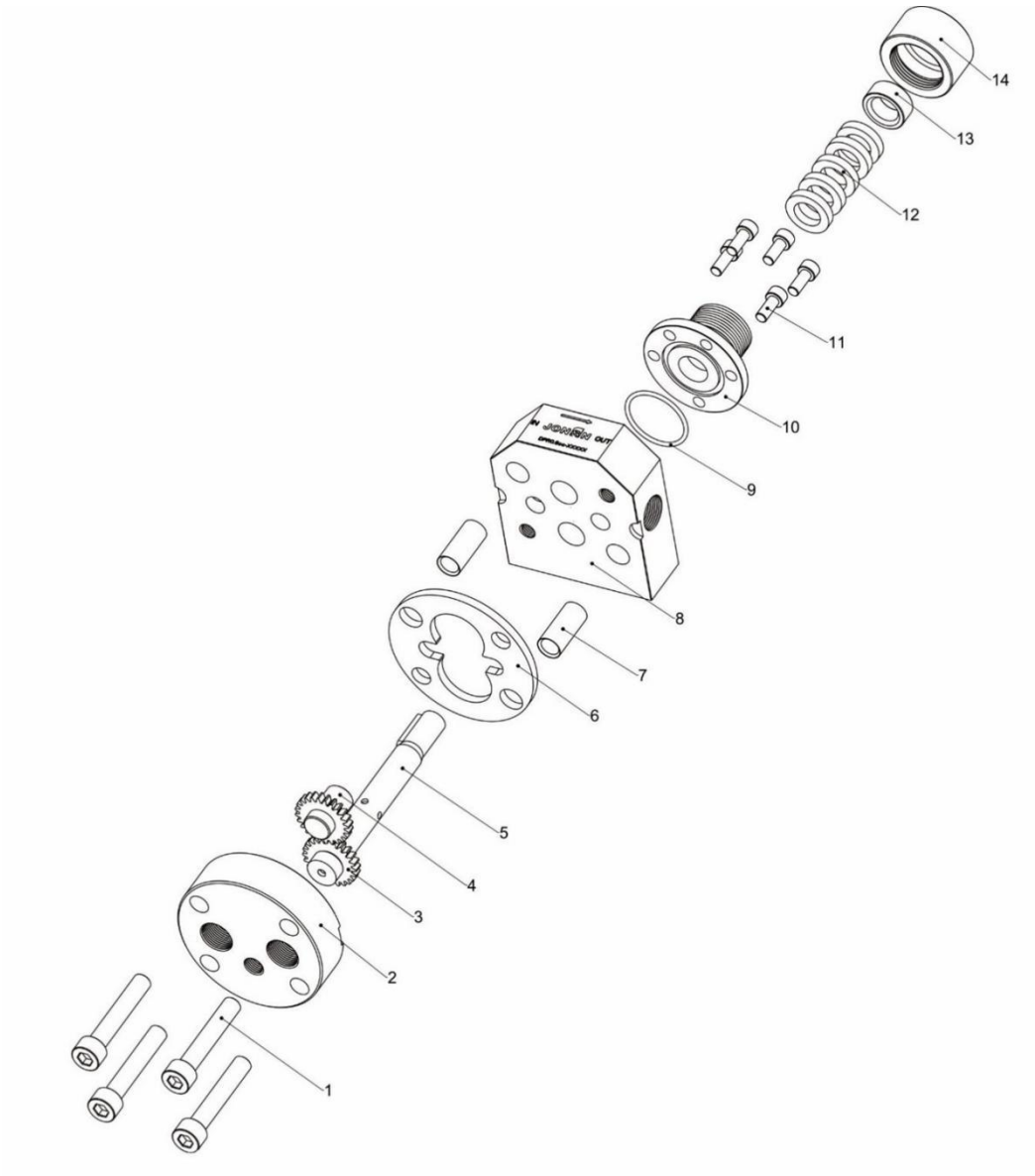


12. 机械密封结构/ Mechanical seal structure



序号 / NO.	零件名 / Part Name	数量 / Pcs.	序号 / NO.	零件名 / Part Name	数量 / Pcs.
1	M8 螺栓 M8 Bolt	4	2	泵盖 Pump cover	1
3	齿轮 Gear	2	4	从动轴 Idle shaft	1
5	主动轴 Drive shaft	1	6	泵腔 Pump cavity	1
7	定位销 Position pin	2	8	泵体 Pump casing	1
9	机械密封动环 Mechanical seal dynamic ring	1	10	机械密封静环 Mechanical seal static ring	1
11	机封腔 Mechanical seal cavity	1	12	M5 螺栓 M5 bolt	5

13. 填料密封结构/ Packing seal structure.



序号 / NO.	零件名 / Part Name	数量 / Pcs.	序号 / NO.	零件名 / Part Name	数量 / Pcs.
1	M8 螺栓 M8 Bolt	4	2	泵盖 Pump cover	1
3	齿轮 Gear	2	4	从动轴 Idle shaft	1
5	主动轴 Drive shaft	1	6	泵腔 Pump cavity	1
7	定位销 Position pin	2	8	泵体 Pump casing	1
9	密封圈 Seal ring	1	10	填料密封腔 Packing seal chamber	1
11	M5 螺栓 M5 Bolt	4	12	四氟填料 PTFE packing	5
13	填料压块 Gland follower	1	14	填料密封盖 Packing seal cover	1

14. 齿轮计量泵伺服驱动系统快速操作使用说明

提示：安装前请务必仔细阅读此使用说明书。如有任何问题，请与供货厂家及时联系。

一、计量泵安装及接线（请参见附图）

1. 首先将计量泵及控制箱按预先布置安装就位（注意电缆长度）
2. 将电控箱中的两根黑色线缆从电控箱下部（或上部）出口引出，按对应的插头与电机相连。并将地线接至箱内端子。
3. 将电加热套上的电线接至控制箱内接线端子 1、2（无正负极之分）。
4. 将测温电阻上的电线接至控制箱内接线端子 4、5（无正负极之分）。
5. 将 220VAC 电源线接至控制箱内双联开关上部。此时不要接通开关。
6. 全部接好后，请再次检查确认接线正确。

二、计量泵转速设定及操作

1. 首先接通电源开关，几秒后触摸屏上会出现如下画面<1>：

14.Quick Operation Guide for Gear Metering Pump Servo Drive System

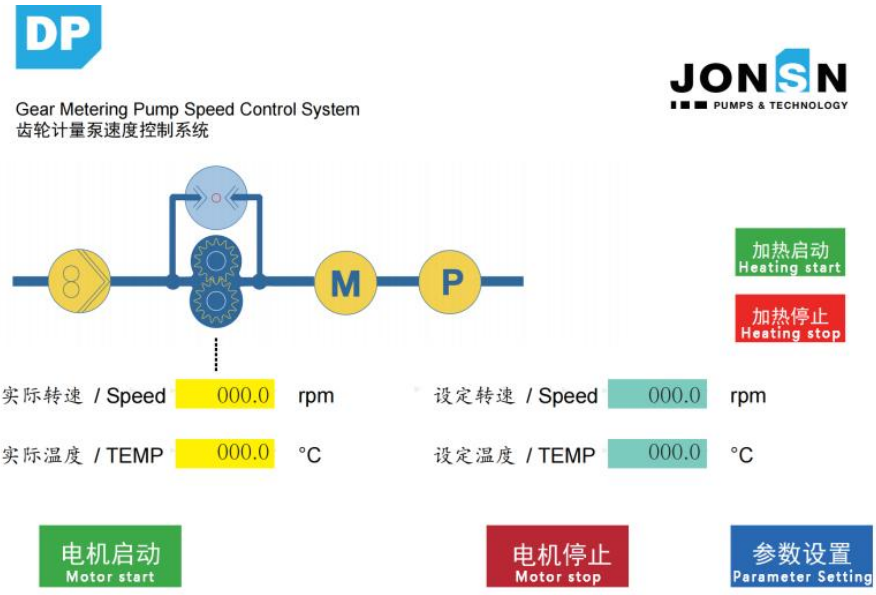
Note: Read this manual carefully before installation. Contact the supplier promptly for any questions.

I. Metering Pump Installation & Wiring (Refer to attached drawings)

1.Mount the metering pump and control cabinet at the prearranged positions (observe cable length limits).
2.Route the two black cables through the lower (or upper) outlet of the control cabinet, plug them into the motor via matching connectors, and connect the ground wire to the internal terminal block.
3.Connect the electric heating jacket leads to terminals 1 and 2 in the control cabinet (no polarity).
4.Connect the temperature sensor leads to terminals 4 and 5 in the control cabinet (no polarity).
5.Connect the 220 VAC power supply to the upper side of the dual switch in the control cabinet. Do not switch on power at this stage.
6.Double-check and verify all wiring is correct after completion.

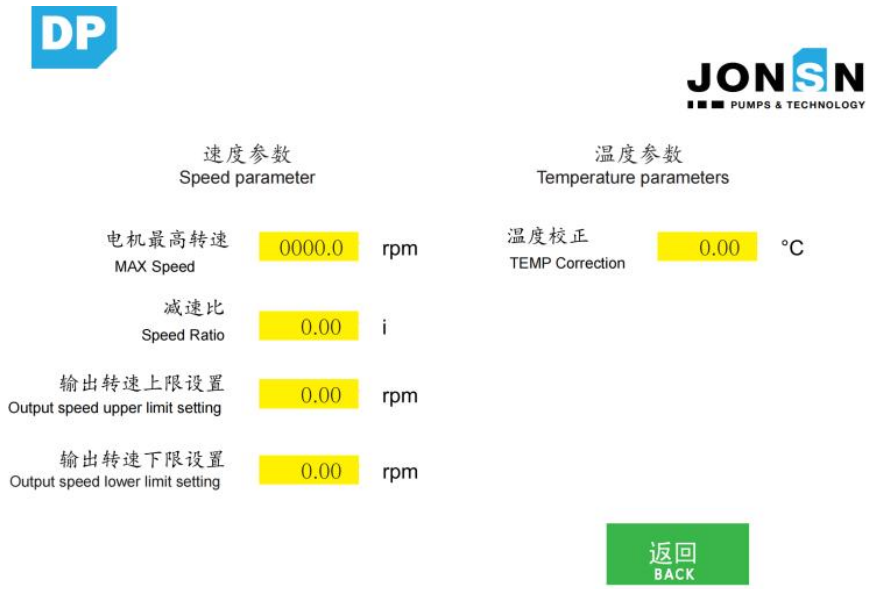
II. Speed Setting & Operation of the Metering Pump

• Switch on the power supply. The touchscreen will display Screen <1> after a few seconds.



2. 按<参数设置>键，会出现如下画面<2>：

2) Press the <Parameter Setting> key and the following screen <2> will appear:



3. 在画面<2>上输入减速机的减速比，最高转速则会自动生成（3000/减速比）。而后输入上限转速值，此值作为安全措施，需依工艺而定，不得大于最高转速值。

4. 设定完成后，按<完成>键，返回画面<1>。注意：出厂时相关参数已按用户工艺设定完毕，用户一般不需进行第 3 步的重新设定。

5. 在画面<1>上，可通过触摸屏输入转速来改变泵的运转速度。注意泵的最高速度不得大于在画面<2>上设定的上限转速。

6. 如欲停止泵的运转，可按<停止>键，即可停止泵的运转。

3.On Screen <2>, enter the gear reducer reduction ratio; the maximum speed will be generated automatically (3000 ÷ reduction ratio). Then set the upper speed limit as a safety measure based on process requirements. This value must not exceed the calculated maximum speed.

4.Press **<Complete>** to return to Screen <1>. Note: Relevant parameters are factory-configured to match user process conditions; reconfiguration in step 3 is normally unnecessary.

5.On Screen <1>, adjust the pump operating speed by entering a value on the touchscreen. The actual pump speed must not exceed the upper speed limit set on Screen <2>.

6.Press **<Stop>** to shut down the pump.

三、温度设定操作

1. 将控制箱内温控模块上的开关置于 RUN 的位置，然后在画面 1 上的温度设定值栏内设定温度值。

2. 此时泵体开始被加热，温度实际值栏内的数值会缓慢接近设定值，并最终稳定在设定值上（可能会有微量偏差）。

3. 可用测温表实际测量泵头温度，如与设定值有偏差，可通过画面 2 上的温度修订进行补偿设置。

4. 画面 2 上的自动调节按钮是用于初次使用时对加热过程进行整定之用，设备出厂时已整定完毕，不需再次使用。

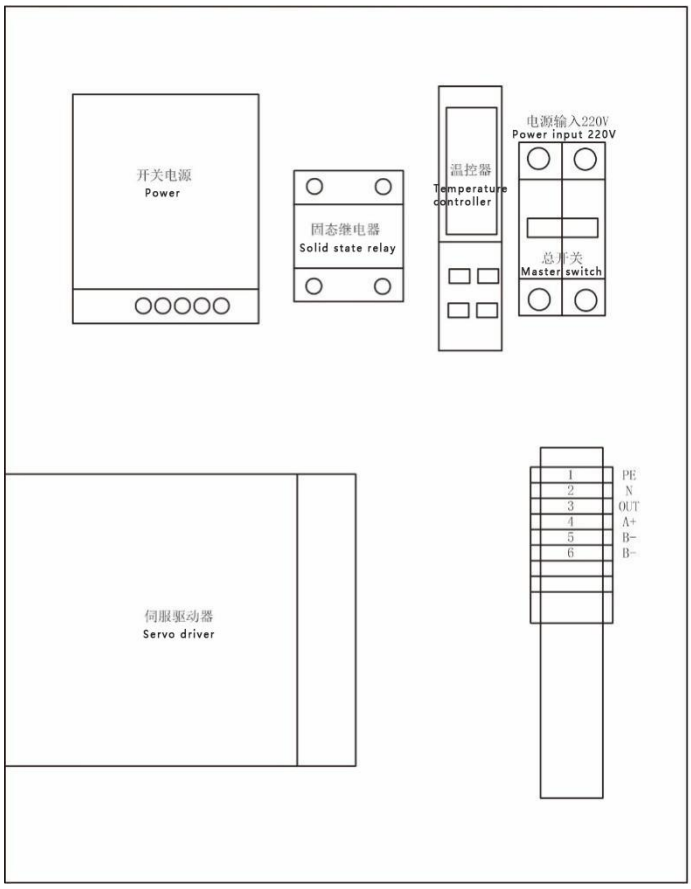
III. Temperature Setting & Operation

1.Set the switch on the temperature control module inside the cabinet to the RUN position, then enter the target temperature in the temperature setpoint field on Screen 1.

2.The pump body will begin heating. The actual temperature reading will rise gradually toward the setpoint and eventually stabilize (minor deviation may occur).

3.Measure the actual pump head temperature with a thermometer. If a deviation from the setpoint exists, apply compensation via the temperature correction function on Screen 2.

4.The auto-tuning button on Screen 2 is used for initial heating calibration. The unit is factory-calibrated and does not require re-tuning.



接线说明：
电源进线接开关上端
端子排PE 接地
N和OUT 接加热器
A+/B-/B-接温度传感器

Wiring instruction:
Power input connect to switch upper end
PE of terminal end connect to ground
N & OUT connect to heater
A+/B-/B- connect to temperature sensor

如欲对伺服驱动系统或温控系统做进一步的调整设置，请参阅产品使用手册。使用过程中，如出现任何问题，敬请随时与我们取得联系。

If you'd like to make further adjustments to the servo drive system or temperature control system, please refer to the product manual. If any problems arise during use, please feel free to contact us.

用心、专注做好每一台齿轮泵就是我们的创业初心

Concentrate and focus on making every precision gear pump well.

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