JONSN
PUMPS & TECHNOLOGY



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CE

桶泵操作手册

Drum Pump Operating Instructions

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：桶泵
This manual applies to: Drum Pump

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 situations 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: indicates instructions that must be observed to avoid damage to the device.

注意：表示会引起产品性能变化或设备故障，并提供相关信息。

Notice: May cause changes in product performance or equipment failure; relevant information is provided below.

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一、声明 / Statement

本手册是 JONSN 桶泵使用手册。

任何人在使用，安装，维护，维修 JONSN 系列桶泵时，必须完整阅读本手册。

收到设备，投入使用前，请检查包装是否完好，桶泵是否有损坏，同时核对清单，任何配件的缺失，可能引起使用问题或安全问题。制造商不承担因此引起的设备损坏和人身伤害的责任。

使用者有责任遵守本手册提到的安全要求，同时使用者必须遵循相关法律，法规对安全的要求。制造商不承担违反此类要求而引起的设备损坏和人身伤害的责任。

本设备只适用于本手册规定的使用条件和使用范围，任何超范围使用所导致的设备损坏或人员伤害，制造商不对此承担责任。

I. Statement

This manual applies to JONSN series drum pumps.

All personnel involved in the operation, installation, maintenance and repair of JONSN drum pumps must read this manual thoroughly.

Upon receipt of the equipment and before putting it into service, please inspect the packaging for integrity and the drum pump for damage, and verify all items against the packing list. Missing accessories may lead to operational failures or safety risks. The manufacturer shall not be liable for any equipment damage or personal injury arising therefrom.

It is the user's responsibility to comply with all safety requirements specified in this manual, as well as relevant laws and regulations on occupational safety. The manufacturer shall not be liable for any equipment damage or personal injury resulting from violation of such requirements.

This equipment shall only be used under the conditions and within the application scope specified in this manual. The manufacturer assumes no liability for equipment damage or personal injury caused by out-of-scope use.

二、安全提示

任何使用者在操作 JONSN 系列桶泵前务必详细阅读并理解本安全提示。

➢ 使用前

1. 内有高速转动部件，非正常的操作可能会引起不可预见的人身伤害，务必严格按照本手册要求操作；
2. 在安装和开启桶泵之前，相关安装使用和维护的工程师必须熟悉操作和维修手册，并具有相当的资质；
3. 桶泵的安装与维修必须严格按照现有的机械、电气方面的规范或者标准操作；
4. 备件的使用寿命受到磨损、腐蚀的限制，故障受操作环境的影响。用户有责任按规定操作，定期的维护，需要的时候更换零部件。当泵工作不正常或者有明显的危险时，应该停止运行；
5. 桶泵安装在发生故障时可能危及人身安全或器材损坏的位置时，必须装配可靠的检测报警系统或备泵。

➢ 使用时

1. 操作腐蚀性和有害物质时，一定要穿防护衣服，防护眼镜和依照安全生产程序；
2. 输送易燃易爆液体时，禁止使用塑料泵管或非防爆电机；
3. 输送易燃易爆液体时，必须安装接地线，必须使用静电保护装置，输出软管使用导电软管；
4. 使用前确认泵管插入流体中，确保所有接头连接紧密，无泄漏，无脱落的危险；
5. 输送高温和腐蚀性液体时必须使用适合的软管；
6. 注意被泵送的液体的温度、粘度和密度不要超过泵的上限；
7. 当输送有杂质或颗粒的液体时，需在泵管底部安装过滤器，并定时检查清理，避免堵塞。
8. 通电前确保泵马达处于关闭的位置，输送时必须有人员监护，液体输送完后马上关掉马达，禁止让泵干转；
9. 不准在接通电源或气源的状态下接触泵管底部，高转速的叶轮可能引起的设备和人身的损坏；
10. 泵管必须保证在竖直位置工作，保证马达在上方。使用后必须保证泵管竖直摆放，禁止倒放或平放，建议放置在专用的支架上面，同时需要留意残留液体对环境和人身的危害。

II. Safety Instructions

All users must read and fully understand these safety instructions before operating JONSN series drum pumps.

Before Use

1.The unit contains high-speed rotating components. Improper operation may cause unforeseen personal injury. Operate strictly in accordance with this manual.
2.Personnel responsible for installation, operation and maintenance must be familiar with the operation and maintenance manuals and hold relevant qualifications before installing or starting the pump.
3.Installation and maintenance of the drum pump must comply with current mechanical and electrical codes and standards.
4.Service life of spare parts is limited by wear and corrosion; equipment performance is affected by operating conditions. Users are responsible for compliant operation, regular maintenance and timely component replacement. Stop operation immediately if the pump malfunctions or presents obvious hazards.
5.Where pump failure may endanger personnel or damage equipment, a reliable monitoring & alarm system or standby pump must be installed.

During Operation

1.Wear protective clothing, safety goggles and follow safe work procedures when handling corrosive or hazardous substances.
2.Plastic pump tubes and non-explosion-proof motors are strictly prohibited when conveying flammable or explosive liquids.
3.When conveying flammable or explosive liquids, install a grounding wire, use electrostatic protection devices, and adopt conductive delivery hoses.
4.Before operation, ensure the pump tube is fully immersed in the fluid, and all connections are tight, leak-free and secured against disconnection.
5.Use hoses rated for high-temperature and corrosive service when conveying such media.
6.Ensure the temperature, viscosity and density of the pumped liquid do not exceed the pump's rated limits.
7.Fit a strainer at the bottom of the pump tube when conveying liquids with impurities or particles, and inspect/clean it regularly to prevent clogging.
8.Confirm the pump motor is switched off before powering on. Operation must be attended by personnel; switch off the motor immediately after delivery is complete. Dry running is strictly prohibited.
9.Do not touch the bottom of the pump tube while power or air supply is connected — high-speed impellers may cause equipment damage or personal injury.
10. The pump tube must operate vertically with the motor on top. After use, store the pump vertically; do not lay it horizontally or upside down. A dedicated storage stand is recommended. Be aware of environmental and health hazards from residual liquid.

三、质量保证/Quality Assurance

我们保证所有产品在出厂前都经过检验测试，符合设计要求。保证对 6 个月内产品材质和工艺方面的问题将免费维修。在保修期内，产品出现问题，得到工厂调查确认后，产品将被维修或更换。用户须提供：产品购买日期证明。

质量保证下的义务仅仅为维修或更换部件。质量保证适应于产品或部件的正常磨损。不适应于由于人为因素，过载，化学品腐蚀等等造成的产品或部件的损坏，对产品更改导致的产品损坏或人员伤害，我们不承担任何责任，不在担保范围内的，用户应该承担由于实验、材质和运输产生的所有费用。我们不对任何连带或间接的损失负责，不仅仅限于加工时间、运费、实验费、安装费、利润损失，在任何情况下，费用不能超过产品或附件的价格。

III. Quality Assurance

We warrant that all products have been inspected and tested prior to delivery and conform to design specifications. Free repair service is provided for defects in material and workmanship within 6 months from purchase. During the warranty period, confirmed defective products (upon factory verification) will be repaired or replaced. Users shall provide proof of purchase date.

Our obligation under this warranty is limited solely to the repair or replacement of defective parts. **This warranty does not cover normal wear and tear** of products or components. It shall not apply to damage caused by human error, overload, chemical corrosion, etc. We assume no liability for product damage or personal injury resulting from unauthorized product modification. For non-warranty cases, the user shall bear all costs arising from testing, material handling and shipping.

We shall not be liable for any consequential or indirect losses, including but not limited to processing downtime, freight charges, testing fees, installation costs and lost profits. Under no circumstances shall our total liability exceed the purchase price of the product or its accessories.

四、运输保存

泵管和马达采用纸箱包装，内部有足够保护设备安全的防护辅助包装材料，但不能承受非正常外力敲击，重压，请按照外包装指示运输、堆放。长期贮藏时，存放地必须确保防腐蚀和保持干燥。腐蚀和潮湿会损坏泵管和马达零件。

IV. Transportation & Storage

The pump tube and motor are packed in cartons with sufficient internal protective materials to safeguard the equipment during transit. However, they cannot withstand abnormal impact, heavy crushing or excessive loads. Please transport and stack packages in accordance with the markings on the outer carton.

For long-term storage, keep the storage area corrosion-free and dry. Corrosion and moisture will dam

五、产品概述

1. 产品简介

PT 系列

JONSN PT 系列高性能无泄漏桶泵是一款通用性很强的桶泵，可以满足 80%的应用。共有 PP、 PVDF、304SS、316SS 材质泵管，适用于绝大部分中低粘度液体的输送；高性能闭式叶轮同时满足更高的扬程和流量。泵管采用高压屏蔽式无泄漏结构设计，液体不会从轴端泄漏，真正的无泄漏桶泵， PT 系列桶泵出口采用标准快装接头，可以方便地连接各类标准接口。

V. Product Overview

1. Product Introduction

PT Series

The JONSN PT series high-performance leak-free drum pump is a highly versatile model covering 80 % of typical applications. Pump tubes are available in PP, PVDF, 304SS and 316SS materials, suitable for transferring most low-to-medium viscosity liquids. Its high-efficiency closed impeller delivers both higher head and flow capacity.

The pump tube adopts a high-pressure canned leak-free structure, eliminating shaft-end leakage for truly leak-free operation. The outlet is fitted with a standard quick-connect coupling for easy connection to various standard interfaces.

TB 系列

JONSN TB 系列中型桶泵流量适中，更加轻便，适合用于小口径容器液体取样输送。特别适合低粘度介质，如溶剂，漂白液，盐酸，硝酸，硫酸等介质。

共有 304SS 、316SS、PP、PVDF 材质，外径分别是 42mm，

TB Series

The JONSN TB series medium-duty drum pump offers moderate flow rates in a lightweight form factor, ideal for liquid sampling and transfer from small-bore containers. It is particularly suited to low-viscosity media such as solvents,

模块化设计。

HT 系列

JONSN HT 系列高粘度桶泵专为中高等粘度液体设计，输送如：胶水，油漆，乳胶，各类树脂，聚合物等。配合不同的马达可以输送不同粘度，最高输送粘度可以达到 20000cps。

JONSN HT 系列桶泵可以使用电动和气动 2 种马达驱动方式，泵管和马达通过 IEC 标准接口连接，可以配套 IEC 标准单相或三相，普通或防爆电机，也适合中国标准 Y 或 YB 系列 B14 法兰安装电机。或配合标准接口的气动马达。

2. 型号说明

泵管型号说明

PT	P	S	10	X
①	②	③	④	⑤

① 泵系列: PT 系列；TB 系列；HT 系列

② 泵管材质: P：聚丙烯；F：PTFE；S：不锈钢；V：PVDF

③ 主轴材质: S：不锈钢 H：哈氏合金

④ 泵管长度: 07：700mm；10：1000mm；12：1200mm；15：1500mm；18：1800mm；SXX：非标

⑤ 特殊配置.

3. 结构配置

JONSN 桶泵由泵管和马达组成，根据输送的液体选择不同材质的泵管，主要分为金属和非金属材质；根据桶

bleaching solutions, hydrochloric acid, nitric acid and sulfuric acid.

Available materials include 304SS, 316SS, PP and PVDF, with an outer diameter of 42 mm. The unit features a modular design.

HT Series

The JONSN HT series high-viscosity drum pump is engineered for medium-to-high viscosity liquids, including glues, paints, latex, various resins and polymers. When paired with different motors, it can handle viscosities up to 20 000 cps.

The HT series supports both electric and pneumatic motor drives. The pump tube connects to the motor via an IEC standard interface, compatible with IEC standard single-/three-phase, standard or explosion-proof motors, as well as Chinese standard Y or YB series B14 flange-mounted motors and standard-interface pneumatic motors.

2. Model Designation

Pump Tube Model Coding
Example: PT P S 10 X ① ② ③ ④ ⑤
① Pump series: PT series; TB series; HT series
② Pump tube material:
P: Polypropylene (PP)
F: PTFE
S: Stainless steel
V: PVDF

③ Shaft material:
S: Stainless steel
H: Hastelloy

④ Pump tube length:
07: 700 mm
10: 1000 mm
12: 1200 mm
15: 1500 mm
18: 1800 mm

SXX: Customized (non-standard)

⑤ Special configuration

3. Structure & Configuration

The JONSN drum pump consists of a pump tube and a drive motor. Pump tubes are available in metallic and non-metallic materials, selected based on the liquid to be conveyed. Tube lengths can be specified to match different drum heights.

的高度需要，可以选择不同长度的泵管。

马达是驱动部件，包括电动和气动两种类型，根据输送液体的特性和使用场合可以选择不同功率和防爆等级的马达。

泵管材质（表一）

型号 Model	泵管 Tube	轴 Shaft	密封 Seal	轴衬 Bushing
PTPS	PP	SS	VITON	PTFE
PTPH	PP	HC	VITON	PTFE
PTVH	PVDF	HC	VITON	PTFE
PTSS	SS	SS	PTFE	PTFE
TBVH	PVDF	HC	PTFE	PTFE
TBSS	SS	SS	PTFE	PTFE
TBPH	PP	HC	PTFE	PTFE
HTSS	SS	SS	Mechanical Seal*	PTFE
HTSS-A	SS	SS	Mechanical Seal	-

*部分液体需要使用特殊的 0 型圈。

六、特性

1. 操作条件

液体（输送介质）

JONSN 系列桶泵可以输送各类液体，由于液体多样性，选型必须考虑到液体和泵管材质的相容性，泵管材质参见表（一）。

温度

泵的使用温度受材料限制。最高使用温度如下：

PP：71℃； PVDF：49℃；

PTFE：110℃， SS：150℃

电动马达使用环境温度：-25-40℃。

粘度

PT 系列桶泵选用调速电机可以输送最大粘度 800cps 的液体；电动马达输送高粘度液体时可能引起过载，配气动马达时最高输送粘度为 300cps。

The motor is the driving component, available in electric and pneumatic versions. Motors with different power ratings and explosion-proof grades can be selected according to liquid properties and operating scenarios.

Pump Tube Materials (Table 1)

Model	Tube	Shaft	Seal	Bushing
PTPS	PP	SS	VITON	PTFE
PTPH	PP	HC	VITON	PTFE
PTVH	PVDF	HC	VITON	PTFE
PTSS	SS	SS	PTFE	PTFE
TBVH	PVDF	HC	PTFE	PTFE
TBSS	SS	SS	PTFE	PTFE
TBPH	PP	HC	PTFE	PTFE
HTSS	SS	SS	Mechanical Seal*	PTFE
HTSS-A	SS	SS	Mechanical Seal	-

*Special O-rings shall be used when handling certain liquids.

VI. Performance Characteristics

1. Operating Conditions

Pumped Medium

JONSN series drum pumps are designed for transferring various liquids. Given the wide diversity of liquid properties, material compatibility between the medium and pump tube must be evaluated during pump selection. Refer to Table 1 for pump tube material specifications.

Temperature

The pump's operating temperature is limited by its construction materials. Maximum allowable operating temperatures are as follows:

PP: 71 °C
PVDF: 49 °C
PTFE: 110 °C
Stainless steel (SS): 150 °C

Ambient temperature range for electric motors: –25 °C to 40 °C.

Viscosity

PT series: Equipped with a variable-speed electric motor, it can convey liquids up to 800 cps. Electric motors may overload when handling highly viscous liquids; when paired with a pneumatic motor, the maximum viscosity is 300 cps.

TB 系列桶泵最高输送粘度为 100cps。

HT 系列桶泵选用不同电机可以输送不同粘度，最大可以是输送粘度 20000cps 的液体。

配合 PM750（BM750）电机：1-800 CPS

配合 PM1500（BM1500）电机：800-7000CPS

配合 PM2200（BM2200）电机：7000-20000CPS

➲输送有粘度液体时候，需要配置相当的电机，超过额定输送粘度，电机有过载的危险，严重时会损坏电机。

比重

JONSN 系列桶泵可以输送最高比重 1.8。

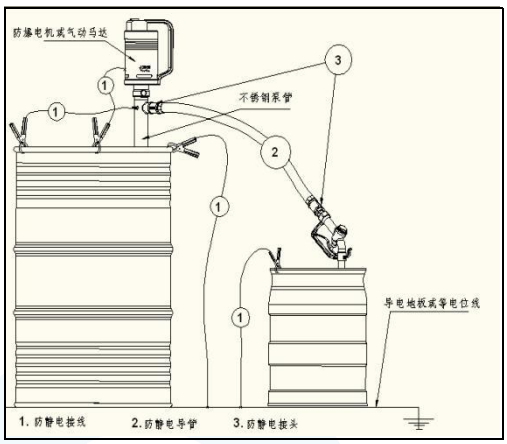
➲输送高比重液体时候，桶泵的输送流量和扬程都会有所下降。

颗粒

JONSN 系列桶泵只能用于清洁的液体，如果液体含有颗粒必须安装过滤器。否则会损坏轴和滑动轴承。

防爆区域

输送易燃易爆液体时，只有防爆电机或者气动马达配合不锈钢泵管才可以用于防爆区域，同时需要安装防静电装置（图一）。



图一（防静电装置示意图）

2. 性能

流量

JONSN PT 系列桶泵最大流量可以达到 160l/min 左右；TB 系列桶泵最大流量可以达到 80 l/min 左右；HT 系列

TB series: Maximum conveying viscosity: 100 cps.

HT series: Viscosity capacity varies with motor selection, with a maximum of 20000 cps:

PM750 (BM750) motor: 1–800 cps
PM1500 (BM1500) motor: 800–7 000 cps
PM2200 (BM2200) motor: 7 000–20000 cps

➲Motors with appropriate ratings must be selected for viscous liquids. Exceeding the rated viscosity may cause motor overload and even permanent motor damage in severe cases.

Specific Gravity

JONSN series drum pumps can handle liquids with a maximum specific gravity of 1.8. ➲When transferring high- specific- gravity liquids, both the pump's flow rate and head will be reduced.

Particulates

JONSN series drum pumps are intended for clean liquids only. A strainer must be fitted at the pump inlet if the liquid contains solid particles; otherwise, the shaft and sliding bearings will be damaged.

Explosion-Proof Areas

When transferring flammable or explosive liquids, only explosion-proof motors or pneumatic motors with stainless steel pump tubes can be used in explosion-proof areas. Anti-static devices must also be installed (see Figure 1).

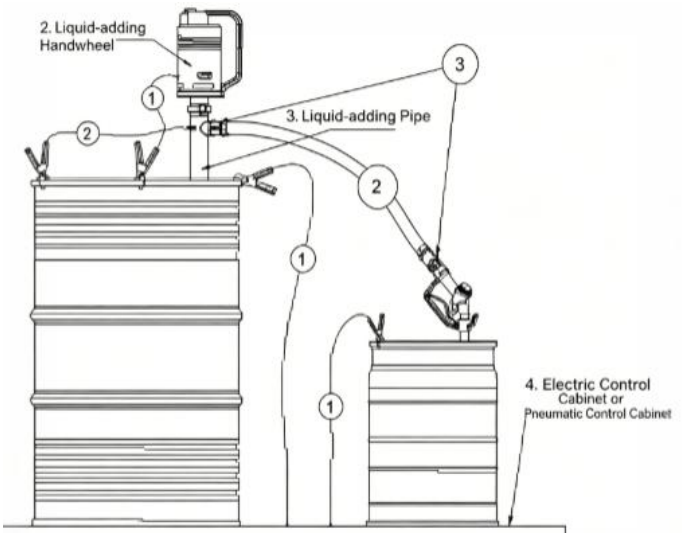


Figure 1: Anti-static Device Diagram

2. Performance

Flow Rate

The JONSN PT series drum pump achieves a maximum flow rate of approximately 160 L/min; the TB series reaches around 80 L/min; the HT series delivers up to 64 L/min.

桶泵最大流量可以达到 64 l/min 左右。

实际流量会受液体粘度，比重，输出管路阻力及选用的马达的影响而下降。调整流量：可以通过调节出口阀门；调节调速电机转速；调节气动马达气源压力来调节流量。

Actual flow rate will decrease under the influence of liquid viscosity, specific gravity, discharge line resistance and the selected motor. Flow adjustment can be realized by regulating the outlet valve, adjusting the speed of the variable-speed motor, or modifying the air supply pressure of the pneumatic motor.

扬程

JONSN PT 系列桶泵最大扬程可以达到 25m 左右；TB 系列桶泵最大扬程可以达到 11m 左右；HT 系列桶泵最大扬程可以达到 120m 左右。

实际扬程会受液体粘度，比重，输出流量及选用的马达的的影响而下降。

Head

The JONSN PT series drum pump has a maximum head of approximately 25 m; the TB series reaches around 11 m; the HT series delivers up to 120 m.

Actual head will be reduced by liquid viscosity, specific gravity, discharge flow rate and the selected motor.

转速

PT 系列桶泵电动马达采用高性能单相串激电机，空载转速在 17000-20000rpm，负载后转速为 10000rpm 左右。

TB 系列桶泵电动马达采用高性能单相串激电机，空载转速在 17000-20000rpm，负载后转速为 10000rpm 左右。

HT 系列桶泵电动马达采用 IEC 标准电机，转速为 3000rpm 或 1500rpm。

气动马达转速在 300-10000rpm 左右，实际转速受气源压力影响。

转速的变化会直接影响到输送的流量和扬程。

Rotational Speed

PT series: Equipped with high-performance single-phase universal motors, with a no-load speed of 17 000–20 000 rpm and a loaded speed of approximately 10 000 rpm.

TB series: Adopts the same high-performance single-phase universal motors, featuring a no-load speed of 17 000–20 000 rpm and a loaded speed of around 10 000 rpm.

HT series: Uses IEC standard motors with rated speeds of 3 000 rpm or 1 500 rpm.

Pneumatic motors operate at approximately 300–10 000 rpm; actual speed is subject to air supply pressure.

Changes in rotational speed directly affect the delivered flow rate and head.

性能曲线

查阅性能曲线可以获得一定转速下的流量和扬程。

Performance Curves

Flow rate and head values at a given speed can be referenced from the performance curves.

噪音

使用不同电机在不同负载时噪音值会有所不同，以下是 1 米以外最大噪音值。

- TM750 < 80 dB(A)
- BM800 < 80 dB(A)
- AM330 < 85 dB(A)
- AM600 < 85 dB(A)

Noise

Noise levels vary with motor model and operating load. Below are the maximum noise values measured at a distance of 1 meter:

- TM750: ＜ 80 dB(A)
- BM800: ＜ 80 dB(A)
- AM330: ＜ 85 dB(A)
- AM600: ＜ 85 dB(A)

七、安装

VII. Installation

Inspect the package for damage before opening it, then

打开包装前检查包装是否有损坏,并检查随机物品清单,确认没有缺失零部件。

安全检查

- **电源：**电源电压必须符合铭牌上规定的电压；
- **气源：**气源气压必须符合铭牌上规定的气压，满足马达的耗气量；
- **温度：**介质温度必须符合泵管型号的要求；
- **粘度和比重：**介质的粘度和比重必须符合泵管型号的要求；
- **耐腐蚀性：**检查泵的材质是否与所输送的介质具有化学耐受性。

1. 安装马达

1. 检查泵管：各连接部位没有松动，转动联轴器泵轴可以灵活转动；
2. 检查电动马达（如是）：检查电源接线完整，开关状态良好，可以先通电空转一下电机检查是否正常，空转时候要确认联轴器橡胶块不在联轴器上，不能把手伸入电机输出轴端；但应避免长时间空转马达。
3. 检查气动马达（如是）：检查气源是否安装空气过滤润滑二联件，如没有安装，对气动马达供气前必须安装；检查气源入口调压阀和消音器是否完好；
4. 安装联轴器橡胶块到泵管联轴器上；
5. 观察马达端联轴器位置，对准泵管联轴器，把泵管插入马达快速接口，确定泵管头部完全插入快速接口；
6. 马达和泵管的位置可以 360 度调整，安装时把泵管出口调整到适合使用的位置后锁紧螺母即完成安装。建议让泵出口远离马达电源线。

2. 安装桶泵

1. 把连接好马达的桶泵放入输送的桶或容器中，为了保证桶泵在桶或容器中的位置，需要使用桶口固定器或类似措施固定好桶泵；
2. 输送易燃易爆液体时，检查泵管，必须是不锈钢材质，并安装接地线，使用防爆电机或气动马达。（参见图一）
3. 安装出口管：出口管路可以根据实际需要安装塑料软管或金属管，JONSN PT 系列桶泵金属泵标准出口是 1”快装软管接头，非金属泵出口是 G1 1/4”配备了 1”软管接头。非金属管出口螺纹不能直接配接金属螺纹管，以免损坏出口。
4. 出口管路较长时出口必须有支撑，不能由桶泵来承受

check the accessory list to confirm all components are complete.

Safety Pre-Check

Power Supply: Input voltage must match the rated voltage marked on the nameplate.
Air Supply: Air pressure must comply with the rated pressure on the nameplate and meet the air consumption requirement of the motor.
Temperature: Process medium temperature shall satisfy the specification of the pump tube model.
Viscosity & Specific Gravity: Viscosity and specific gravity of the medium shall conform to the pump tube model requirements.
Chemical Resistance: Verify that pump construction materials are chemically compatible with the conveyed medium.

1. **Motor Mounting**

1.Inspect the pump tube: All connections shall be tight; the pump shaft shall rotate freely when turning the coupling.
2.For electric motors: Check intact power wiring and functional switches. Conduct a short no-load test to verify normal operation. Remove the coupling rubber insert before the test; never reach into the motor output shaft end during running. Prolonged no-load operation of the motor is prohibited.
3.For pneumatic motors: Confirm a filter-regulator-lubricator (FRL) unit is installed on the air supply line; fit one if missing before supplying air to the pneumatic motor. Inspect the air inlet pressure regulator and muffler for intact condition.
4.Fit the coupling rubber insert onto the pump tube coupling half.
5.Align the motor-side coupling with the pump tube coupling, insert the pump tube fully into the motor quick-disconnect fitting, and ensure complete seating of the pump tube head.
6.The motor and pump tube assembly can be rotated 360°. Adjust the pump outlet to a convenient position for operation, then tighten the lock nut to finish installation. It is recommended to route the pump outlet away from the motor power cable.

2. **Barrel Pump Assembly**

1.Lower the motor-equipped barrel pump into the target drum or vessel. Secure the pump with a barrel port retainer or equivalent fixture to fix its position inside the container.
2.When transferring flammable and explosive liquids: The pump tube must be stainless steel, fitted with an earthing cable, and paired with an explosion-proof electric motor or pneumatic motor. (See Figure 1)
3.Outlet piping installation: Fit plastic hoses or metal pipes as required. JONSN PT series metal barrel pumps feature a standard 1” quick-disconnect hose adapter at the outlet; non-metallic pump outlets adopt G1 1/4” thread with a matching 1” hose connector. Do not directly thread metal pipes onto non-metallic pump outlets to avoid thread damage.
4.For long outlet pipelines, provide independent pipe supports. The barrel pump shall not bear the weight of piping, which may deform the pump tube or topple the drum/vessel.

管路的重量，以免泵管变形或拉倒桶或容器。
5. 检查电动马达或气动马达开关处于关闭状态，接通电源或气源即完成安装。

5.Confirm the electric/pneumatic motor switch is in the OFF position, then connect power or air supply to complete installation.

八、启动

检查所有连接部位没有泄漏，出口管的出液口不能是自由状态必须固定好，否则压力会把管路甩出来。
手扶住马达或者泵管，启动电源或气源。运转稳定或泵管固定后放手。

VIII. Startup

Check all joints for leaks. Secure the discharge end of the outlet pipe firmly; unsecured piping may whip out under fluid pressure. Hold the motor or pump tube steady, then switch on power or air supply. Release your grip only after stable operation or full fixture of the pump tube.

九、运转

桶泵输送时必须有人员监护，液体输送完后马上关掉马达，禁止让泵干转。桶泵不能把桶或容器中液体完全抽空，桶底部会残留 7cm 左右液体，如果把桶倾斜后抽吸可以最大限度地减少残留液体。不能把运转的泵从液体中取出转到其它桶内继续工作。

IX. Operation

A dedicated operator must supervise the barrel pump during transfer. Shut down the motor immediately once liquid transfer is finished; dry running is strictly forbidden. Do not fully drain liquid from the drum/vessel—approximately 7 cm of residual liquid will remain at the bottom. Tilt the drum during suction to minimize leftover liquid volume. Never lift a running pump out of liquid and transfer it to another drum for continuous pumping.

十、停止

当一桶液体抽完后，必须马上切断电源或气源，停泵。如果需要在别的桶继续使用，必须等泵管内液体回流后取出，取出时要避免泵管内液体污染环境。

X. Shutdown

Cut off power or air supply instantly once one drum is emptied to stop the pump. If reusing the pump on another drum, wait for liquid inside the pump tube to drain back before removal. Handle carefully to prevent residual liquid from contaminating the surrounding environment.

十一、存放

如果暂时不使用桶泵，要把桶泵从桶或容器内取出，对于腐蚀性或其他有害液体需要及时清洗。
必须保证泵管马达朝上竖直摆放，禁止倒放，倒放会使泵管内的液体倒流到马达部位，腐蚀轴承和马达建议放置在专用的支架上面，随意摆放可能造成意外的摔撞而导致泵管和电机的损坏。
保持存放地点干燥，湿气和腐蚀性气体对电动和气动马达都会造成损坏。

XI. Storage

Remove the barrel pump from the drum/vessel if it will not be used temporarily. Thoroughly clean the pump tube immediately after conveying corrosive or hazardous media. Store the pump vertically with the motor facing upward; inverted storage is forbidden. Inversion causes residual liquid in the pump tube to flow back into the motor, corroding bearings and motor internals. Storage on a dedicated stand is recommended—casual placement risks impact damage to the pump tube and motor. Keep the storage area dry. Humidity and corrosive vapors will damage both electric and pneumatic motors.

十二、维护

泵管维护

泵管维护前必须清洗泵管！保证泵管出口附近的进气孔畅通，否则会造成泄漏；当泵管使用一段时间后需要检查轴衬的磨损情况，及时更换轴和轴承可以很好延长桶泵的使用寿命，特别是液体有磨蚀性或颗粒

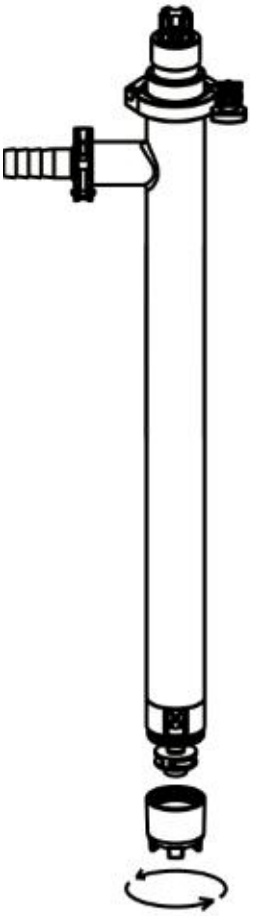
XII. Maintenance

Pump Tube Maintenance

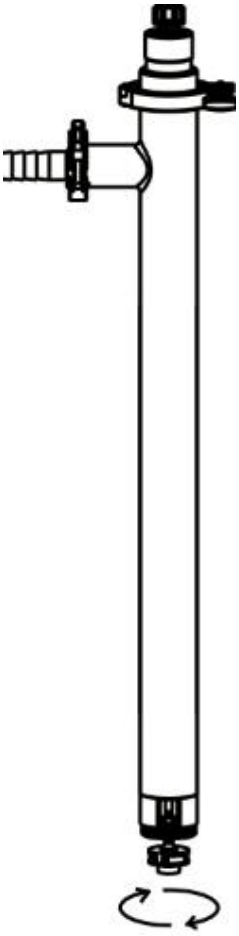
Clean the pump tube thoroughly before any maintenance work! Ensure the air intake hole near the pump outlet remains unobstructed; blockage will cause fluid leakage. Inspect wear of shaft bushes after prolonged operation. Timely replacement

时候；建议至少每 100-150 小时更换一套滑动轴承和密封圈

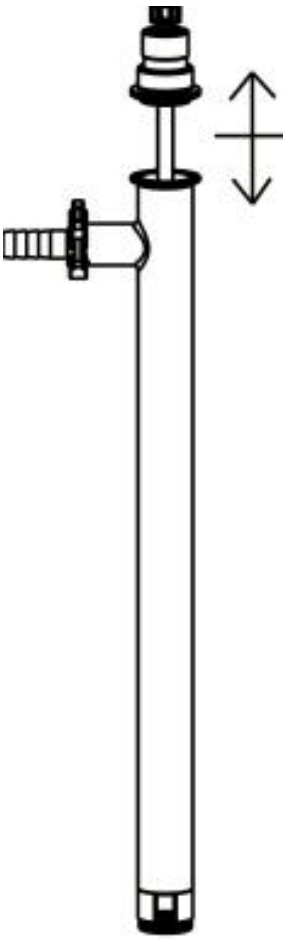
of shafts and bearings significantly extends barrel pump service life, especially when pumping abrasive or particle-laden media. It is advised to replace one set of sliding bearings and sealing rings at least every 100–150 operating hours.



第一步：打开下泵腔



第二步：拆卸叶轮



第三步：拆卸卡箍

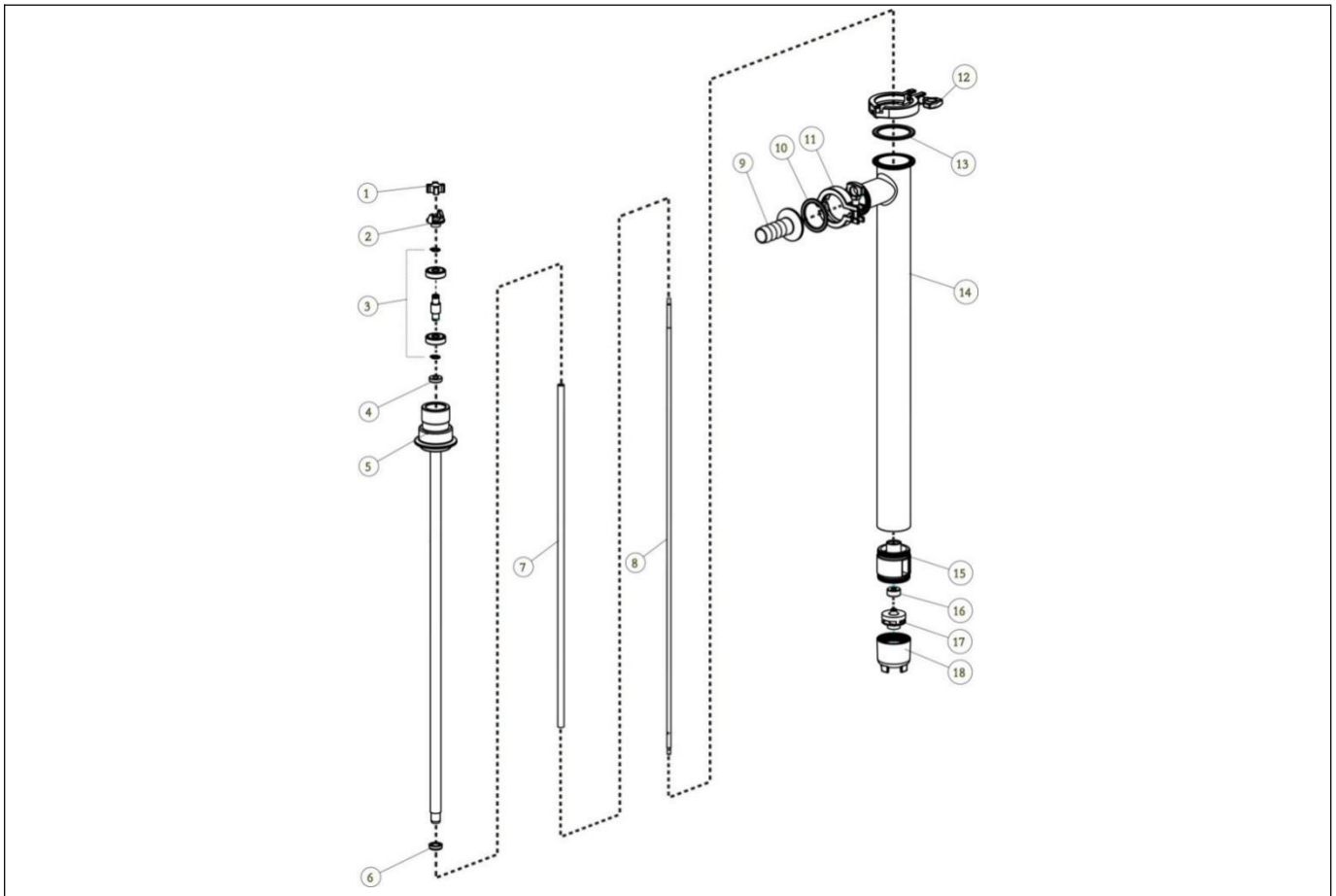
十三、故障判断与处理/Fault Diagnosis & Troubleshooting

故障	原因	处理方法
没有流量，或流量很小	电源（气源）没有打开； 马达故障，不能转动； 出口关闭； 扬程太大； 液体粘度太大； 液体排空； 入口堵塞。 叶轮损坏	打开电源（气源）； 检查马达； 打开出口阀门； 缩短输送距离和高度； 联系供应商检查选型； 停泵； 清理入口； 更换叶轮
震动，噪音很大	液体排空； 电机过载； 滑动轴承磨损； 联轴器橡胶块磨损；	停泵； 检查液体粘度，扬程； 更换滑动轴承，密封圈； 更换联轴器橡胶块。
泵管泄漏	内管密封圈腐蚀。 轴衬磨损	更换密封圈 更换轴衬
泵轴卡死	球轴承磨损 轴衬磨损	更换球轴承 更换轴衬

Fault	Cause	Solution
No flow, or very low flow	Power (air supply) is not turned on Motor failure, unable to rotate Outlet is closed Head is too high Liquid viscosity is too high Liquid is drained (empty) Inlet is blocked Impeller is damaged	Turn on the power (air supply) Check the motor Open the outlet valve Reduce the delivery distance and head Contact the supplier to review the model selection Stop the pump Clean the inlet Replace the impeller
Vibration, very loud noise	Liquid is drained (empty) Motor overload Sliding bearing worn Coupling rubber block worn	Stop the pump Check liquid viscosity and head Replace sliding bearing and seal Replace coupling rubber block
Pump tube leakage	Inner tube seal corroded Bushing worn	Replace the seal Replace the bushing
Pump shaft stuck	Ball bearing worn Bushing worn	Replace the ball bearing Replace the bushing

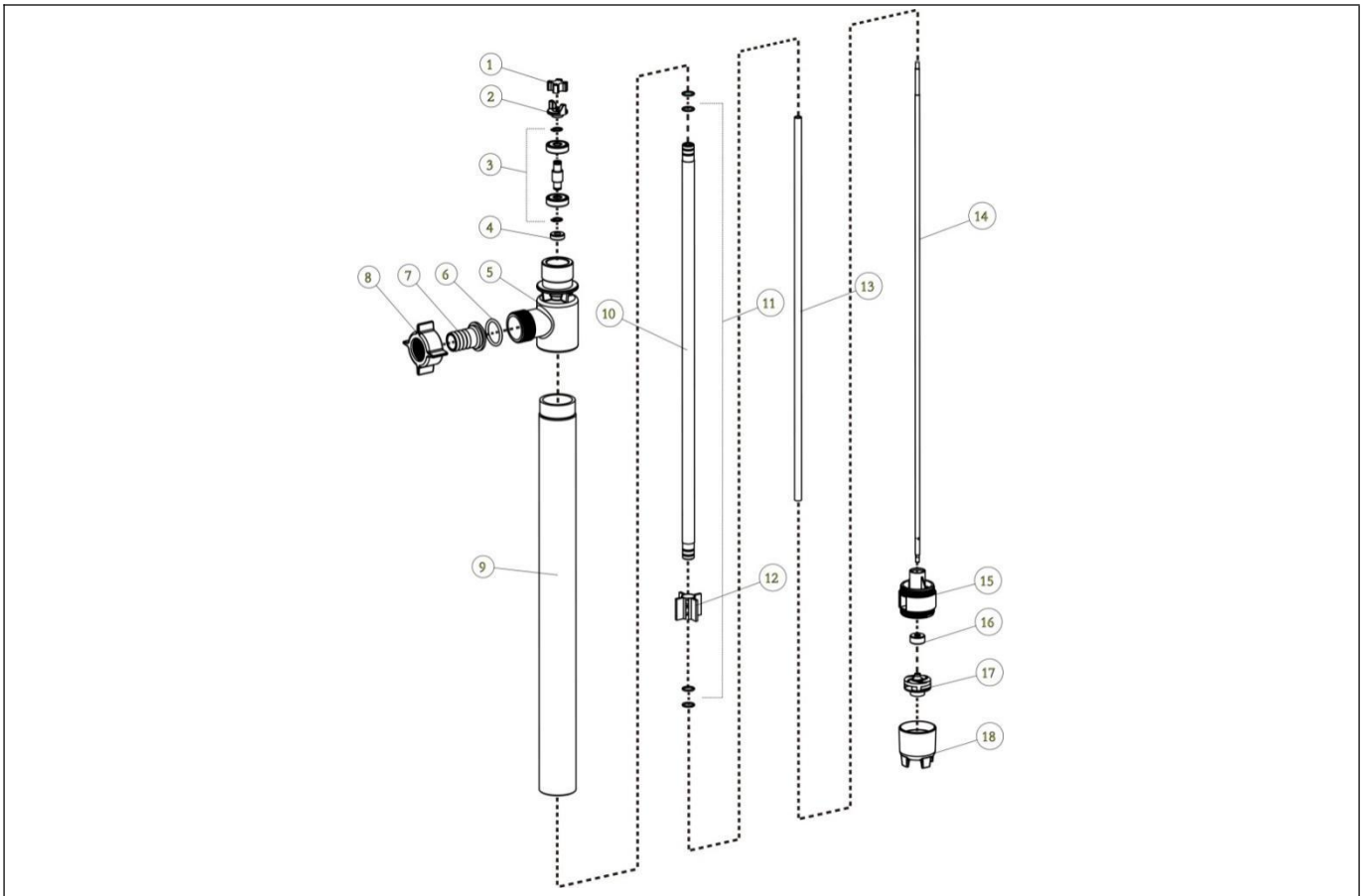
十四、零部件清单/ Parts List

型号 Model：PTSS



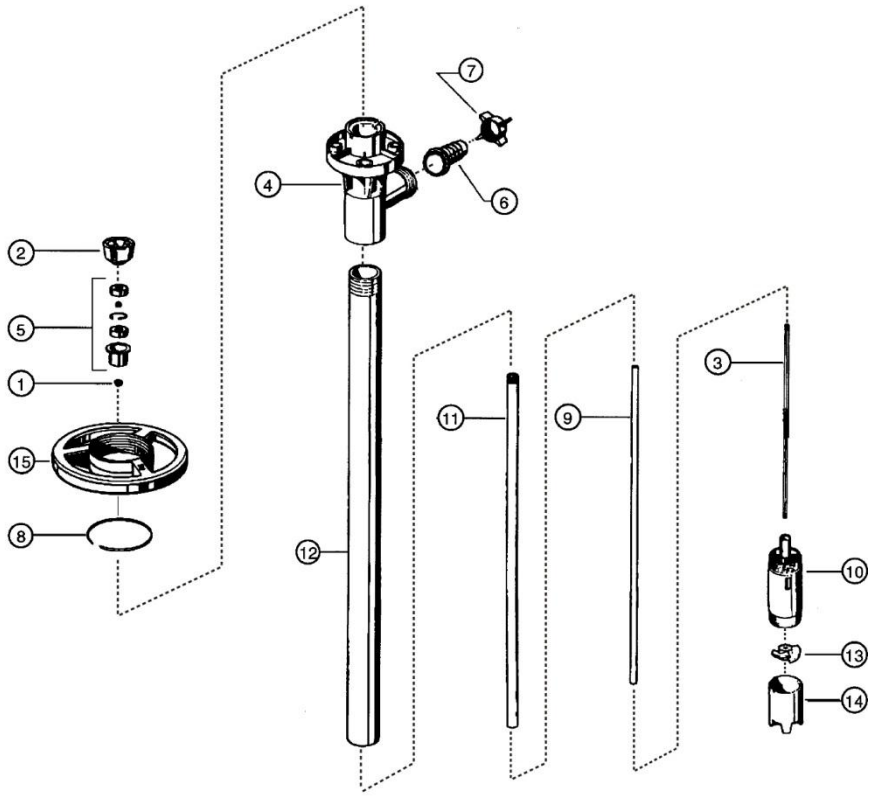
序号 NO	名称 Part Name	订货号 Model No	序号 NO	名称 Part Name	订货号 Model No
1	弹性块 Elastic Cushion	1N-0001	9	软管接头 Hose Fitting	1N-0018
2	联轴器 Coupling	1J-0002	10	密封垫 Gasket	1N-0019
3	轴承组件 Bearing Assembly	1R-0003	11	快装卡箍 Tri-Clamp	1N-0020
4	蒸汽密封 Steam Seal	1J-0004	12	快装卡箍 Quick Clamp	1N-0021
5	泵头-07 Pump Head-07	1J-0005	13	密封垫 Gasket	1N-0022
	泵头-10 Pump Head-10	1J-0006	14	外管-07 Outer Tube-07	1J-0023
	泵头-12 Pump Head-12	1J-0007		外管-10 Outer Tube-10	1J-0024
	泵头-15 Pump Head-15	1J-0008		外管-12 Outer Tube-12	1J-0025
6	V 型圈 V-Ring Seal	1J-0009		外管-15 Outer Tube-15	1J-0026
7	轴衬-07 Shaft Bushing-07	1J-0010	15	上泵腔 Upper Pump Housing	1J-0027
	轴衬-10 Shaft Bushing-10	1J-0011	16	滑动轴承 Plain Bearing	1J-0028
	轴衬-12 Shaft Bushing-12	1J-0012	17	叶轮 Impeller	1J-0029
	轴衬-15 Shaft Bushing-15	1J-0013	18	下泵腔 Lower Pump Housing	1J-0030
8	主轴-07 Main Shaft-07	1J-0014			
	主轴-10 Main Shaft-10	1J-0015			
	主轴-12 Main Shaft-12	1J-0016			
	主轴-15 Main Shaft-15	1J-0017			

型号：PTPS、PTPH、PTVH



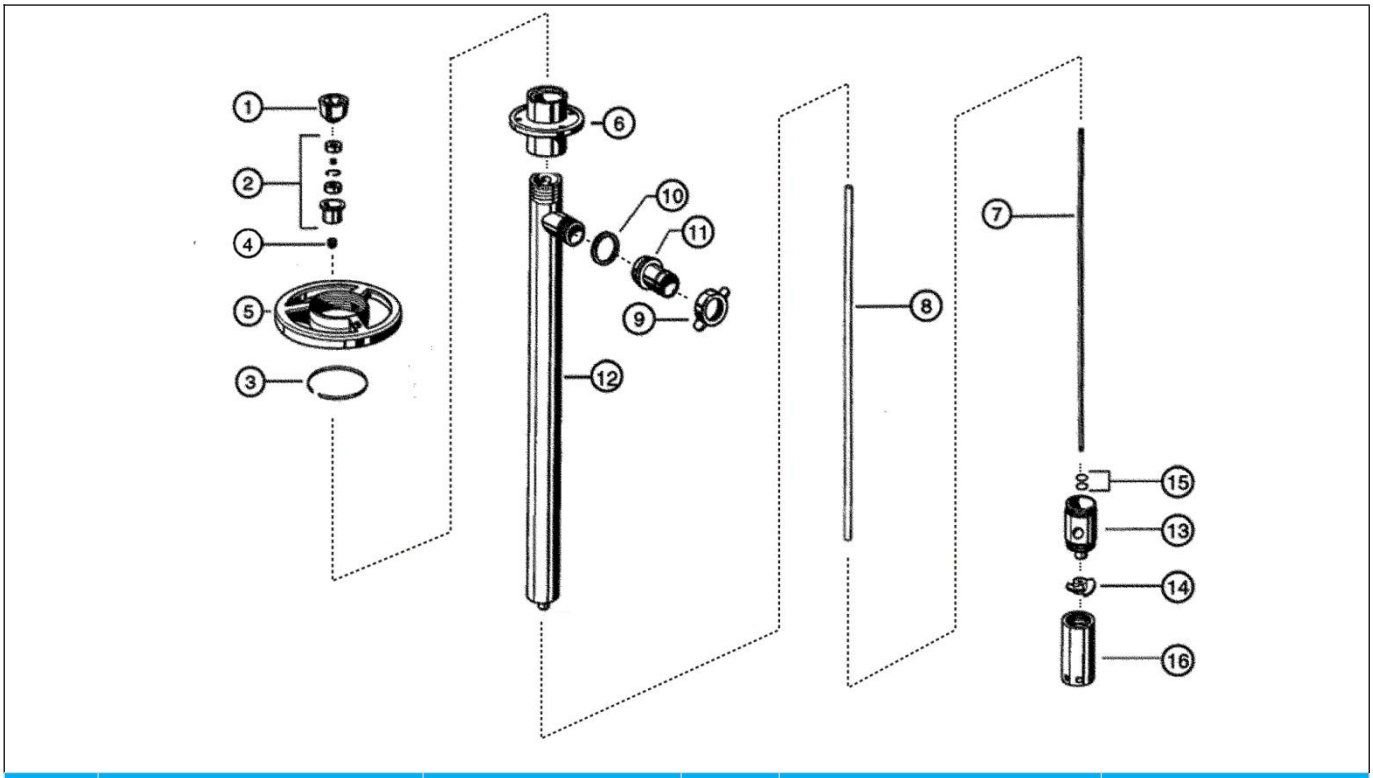
序号 NO	名称 Part Name	订货号 Model No	序号 NO	名称 Part Name	订货号 Model No
1	弹性块 Elastic Cushion	1N-0001	12	中心支架 Center Support	1J-0044
2	联轴器 Coupling	1J-0002	13	轴衬-07 Bushing-07	1J-0045
3	轴承组件 Bearing Assembly	1R-0003		轴衬-10 Bushing-10	1J-0046
4	蒸汽密封 Steam Seal	1J-0004		轴衬-12 Bushing-12	1J-0047
5	泵头 Pump Head	1J-0031		轴衬-15 Bushing-15	1J-0048
6	密封圈 Sealing Ring	1N-0032	14	主轴-07 Main Shaft-07	1J-0049
7	软管接头 Hose Connector	1J-0033		主轴-10 Main Shaft-10	1J-0050
8	活接螺母 Union Nut	1J-0034		主轴-12 Main Shaft-12	1J-0051
9	外管-07 Outer Tube-07	1J-0035		主轴-15 Main Shaft-15	1J-0052
	外管-10 Outer Tube-10	1J-0036	15	上泵腔 Upper Pump Chamber	1J-0053
	外管-12 Outer Tube-12	1J-0037	16	滑动轴承 Sliding Bearing	1J-0054
	外管-15 Outer Tube-15	1J-0038	17	叶轮 Impeller	1J-0055
10	内管-07 Inner Tube-07	1J-0039	18	下泵腔 Lower Pump Chamber	1J-0056
	内管-10 Inner Tube-10	1J-0040			
	内管-12 Inner Tube-12	1J-0041			
	内管-15 Inner Tube-15	1J-0042			
11	泵头 Pump Head	1J-0043			

型号：TBPH、TBVH



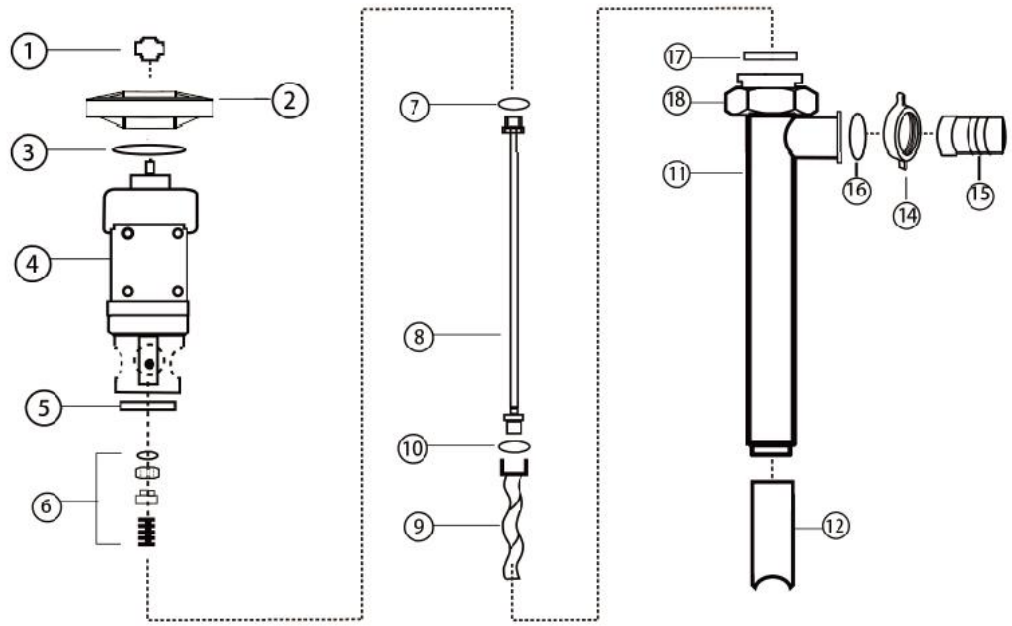
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1	骨架油封 Oil Seal	1R-0057	11	内管-07 Inner Tube-07	1R-0073
2	联轴器 Coupling	1R-0058		内管-10 Inner Tube-10	1R-0074
3	主轴-07 Main Shaft-07	1R-0059		内管-12 Inner Tube-12	1R-0075
	主轴-10 Main Shaft-10	1R-0060		内管-15 Inner Tube-15	1R-0076
	主轴-12 Main Shaft-12	1R-0061	12	外管-07 Outer Tube-07	1R-0078
	主轴-15 Main Shaft-15	1R-0062		外管-10 Outer Tube-10	1R-0079
4	泵头-12 Pump Head-12	1R-0063		外管-12 Outer Tube-12	1R-0080
5	轴承组件 Bearing Assembly	1R-0064		外管-15 Outer Tube-15	1R-0081
6	软管接头 Hose Connector	1R-0065		叶轮 Impeller	1R-0082
7	活接螺母 Union Nut	1R-0066	13	上泵腔 Upper Pump Chamber	1R-0083
8	卡簧 Retaining Ring	1R-0067	14	下泵腔 Lower Pump Chamber	1R-0084
9	轴衬-07 Bushing-07	1R-0068	15	连接螺母 Connection Nut	1R-0085
	轴衬-10 Bushing-10	1R-0069			
	轴衬-12 Bushing-12	1R-0070			
	轴衬-15 Bushing-15	1R-0071			
10	上泵腔 Upper Pump Chamber	1R-0072			

型号：TBSS



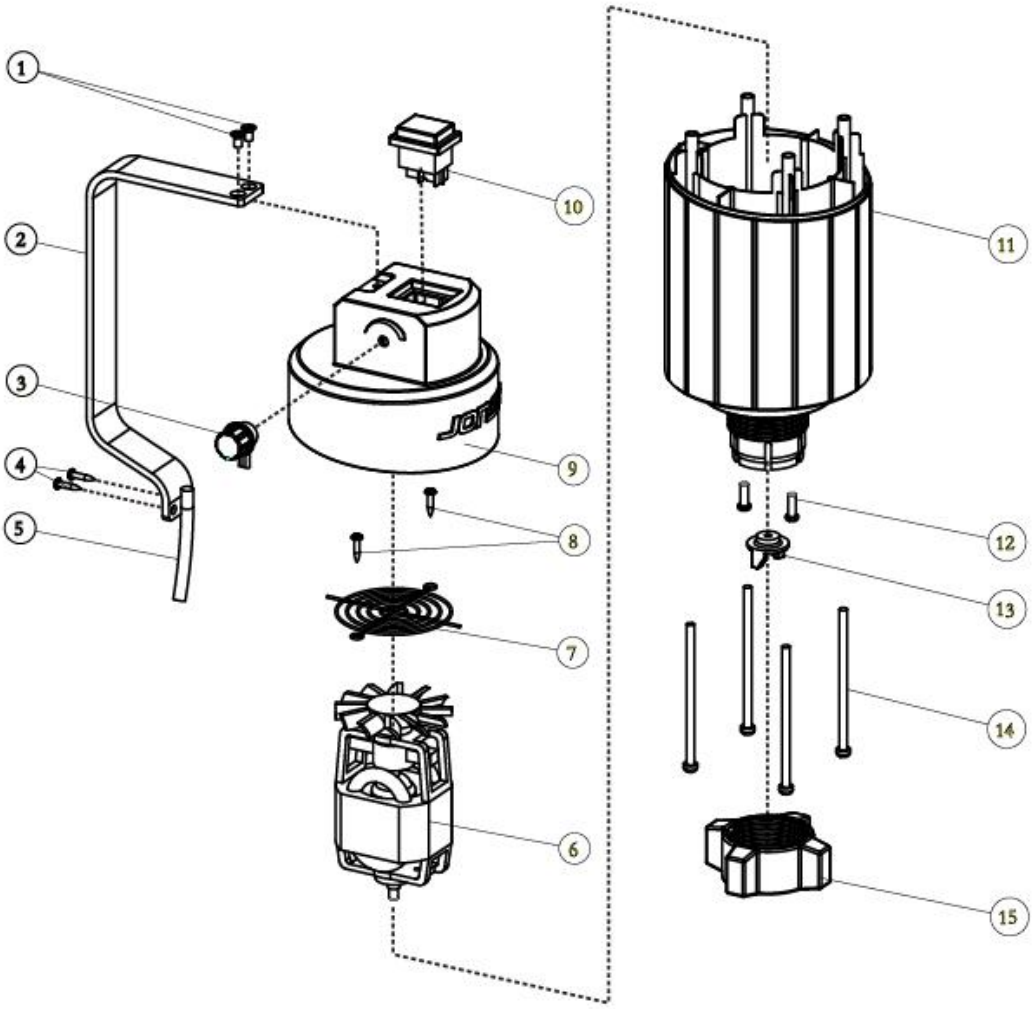
序号 NO	名称 Part Name	订货号 Model No	序号 NO	名称 Part Name	订货号 Model No
1	联轴器 Coupling	1R-0086	9	活接螺母 Union Nut	1R-0100
2	轴承组件 Bearing Assembly	1R-0087	10	密封垫 Gasket	1R-0101
3	卡簧 Retaining Ring	1R-0088	11	软管接头 Hose Connector	1R-0102
4	骨架油封 Oil Seal	1R-0089	12	外管-07 Outer Tube-07	1R-0103
5	连接螺母 Connection Nut	1R-0090		外管-10 Outer Tube-10	1R-0104
6	泵头 Pump Head	1R-0091		外管-12 Outer Tube-12	1R-0105
7	主轴-07 Main Shaft-07	1R-0092		外管-15 Outer Tube-15	1R-0106
	主轴-10 Main Shaft-10	1R-0093	13	上泵腔 Upper Pump Chamber	1R-0107
	主轴-12 Main Shaft-12	1R-0094	14	叶轮 Impeller	1R-0082
	主轴-15 Main Shaft-15	1R-0095	15	O 形密封圈 O-ring	1R-0171
8	轴衬-07 Bushing-07	1R-0096	16	下泵腔 Lower Pump Chamber	1R-0172
	轴衬-10 Bushing-10	1R-0097			
	轴衬-12 Bushing-12	1R-0098			
	轴衬-15 Bushing-15	1R-0099			

型号：HTSS-A



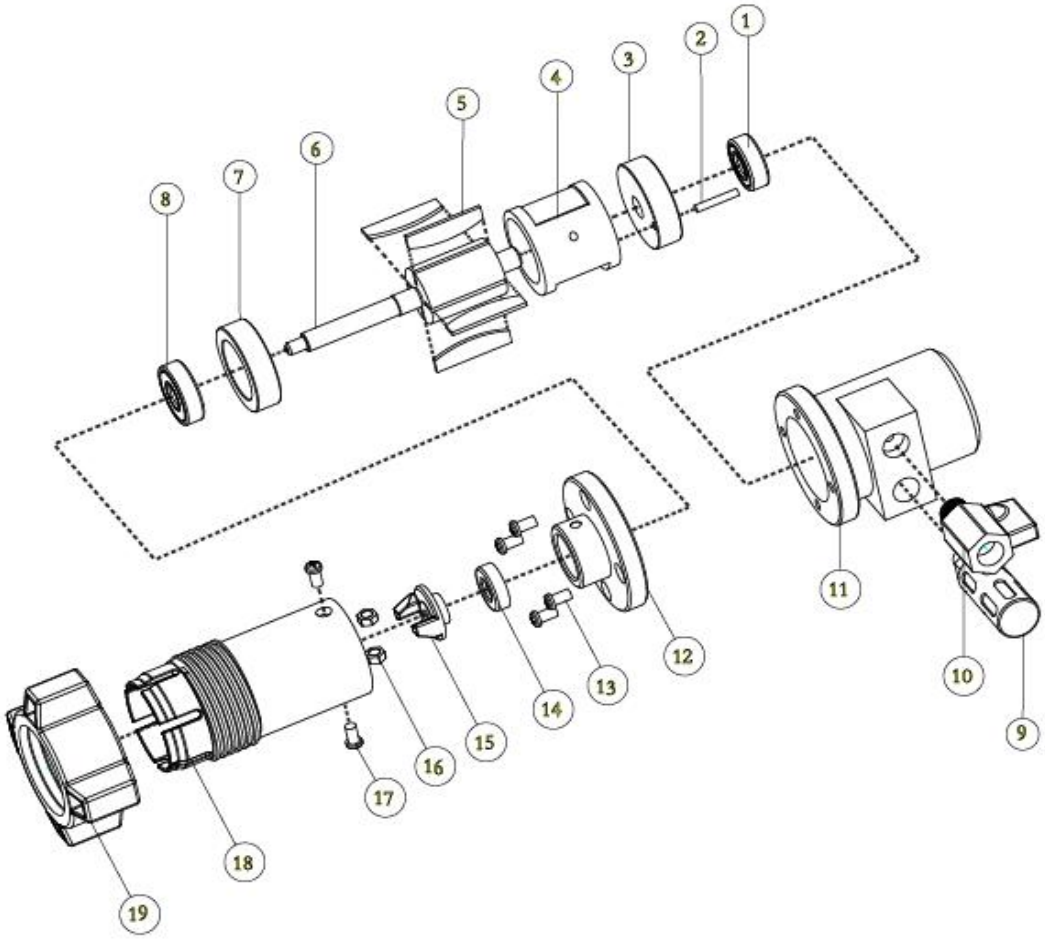
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1	联轴器 Coupling	1R-0108	11	外管 Outer Tube	1R-0118
2	连接螺母 Connection Nut	1R-0109	12	螺杆定子 Screw Stator	1R-0119
3	卡簧 Retaining Ring	1R-0110	14	活接螺母 Union Nut	1R-0120
4	减速器 Reducer	1R-0111	15	软管接头 Hose Connector	1R-0121
5	机械密封静环 Mechanical Seal Stationary Ring	1R-0112	16	密封圈 Sealing Ring	1R-0122
6	机械密封动环 Mechanical Seal Rotating Ring Assembly	1R-0113	17	密封圈 Sealing Ring	1R-0123
7	垫片 Gasket	1R-0114	18	锁紧螺母 Lock Nut	1R-0124
8	传动轴 Drive Shaft	1R-0115			
9	螺杆 Screw	1R-0116			
10	垫片 Gasket	1R-0117			

型号：TM750



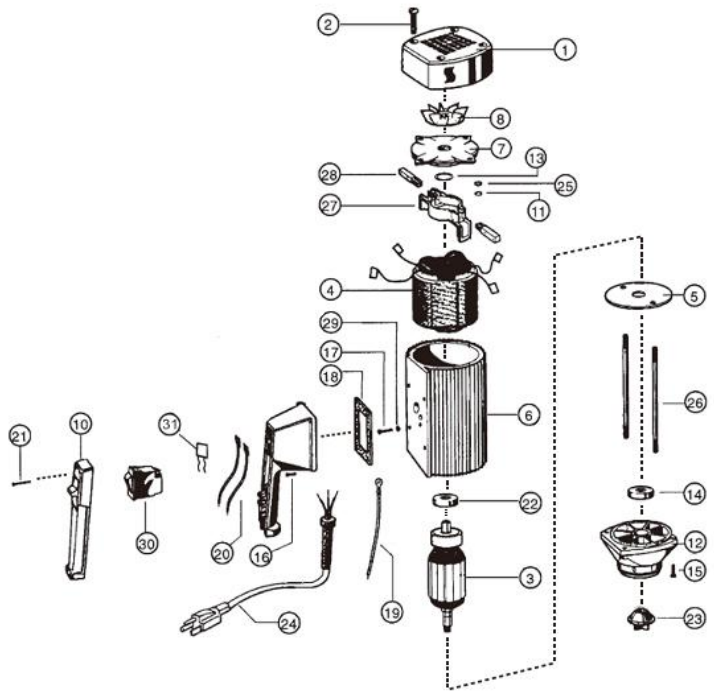
序号 NO	名称 Part Name	订货号 Model No	序号 NO	名称 Part Name	订货号 Model No
1	沉头螺丝 Countersunk Screw	1N-0125	9	上端盖 Upper End Cap	1J-0133
2	手柄 Handle	1J-0126	10	电源开关 Power Switch	1D-0134
3	调速器 Speed Controller	1Y-0127	11	外壳 Housing	1J-0135
4	自攻螺丝 Self-tapping Screw	1N-0128	12	螺丝 Screw	1N-0136
5	电源线 Power Cord	1X-0129	13	联轴器 Coupling	1J-0137
6	马达 Motor	1R-0130	14	螺栓 Bolt	1N-0138
7	网罩 Mesh Guard	1N-0131	15	锁紧螺母 Lock Nut	1J-0139
8	自攻螺丝 Self-tapping Screw	1N-0132			

型号：AM640



序号 NO	名称 Part Name	订货号 Model No	序号 NO	名称 Part Name	订货号 Model No
1	轴承 Bearing	1N-0140	11	外壳 Housing	1J-0149
2	定位销 Dowel Pin	1N-0141	12	端盖 End Cap	1J-0150
3	轴承座 Bearing Seat	1N-0142	13	螺丝 Screw	1N-0151
4	偏心套 Eccentric Sleeve	1N-0143	14	油封 Oil Seal	1N-0152
5	叶片 Vane	1N-0144	15	联轴器 Coupling	1J-0137
6	转子 Rotor	1N-0145	16	螺母 Nut	1N-0153
7	轴承座 Bearing Seat	1N-0146	17	螺丝 Screw	1N-0154
8	轴承 Bearing	1R-0003-B	18	支架 Bracket	1J-0155
9	消音器 Silencer	1S-0147	19	锁紧螺母 Lock Nut	1J-0139
10	进气球阀 Intake Ball Valve	1S-0148			

型号：TM800V、 BM800V



序号 NO	名称 Part Name	订货号 Model No	序号 NO	名称 Part Name	订货号 Model No
1	上端盖 Top End Cover	1R-0156	17	螺丝 Screw	1R-0172
2	螺丝 Screw	1R-0157	18	手把垫片 Handle Gasket	1R-0173
3	转子 Rotor	1R-0158	19	地线 Ground Wire	1R-0174
4	定子 Stator	1R-0159	20	输出电线 Output Cable	1R-0175
5	垫圈 Washer	1R-0160	21	螺丝 Screw	1R-0176
6	外壳 Housing	1R-0161	22	轴承 Bearing	1R-0177
7	垫圈 Washer	1R-0162	23	联轴器 Coupling	1R-0178
8	叶片 Vane	1R-0163	24	电源线 Power Cord	1R-0179
10	开关推杆 Switch Push Rod	1R-0165	25	螺母 Nut	1R-0180
11	垫圈 Washer	1R-0166	26	螺栓 Bolt	1R-0181
12	下端盖 Bottom End Cover	1R-0167	27	碳刷架 Carbon Brush Holder	1R-0182
13	垫圈 Washer	1R-0168	28	碳刷 Carbon Brush	1R-0183
14	轴承 Bearing	1R-0169	29	螺母 Nut	1R-0184
15	螺丝 Screw	1R-0170	30	开关 Switch	1R-0185
16	上端盖 Top End Cover	1R-0171	31	调速器 Speed Controller	1R-0186



用心、专注做好每一台泵就是我们的创业初心

Concentrate and focus on making every precision pump well.

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