CHANGYU
PUMP CUSTOMIZATION EXPERT

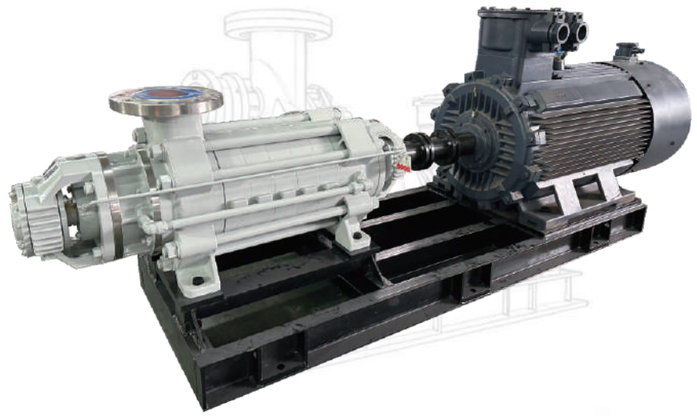
Innovative fluid solutions.

The choice of trust in the chemical industry

DF系列鼓式平衡多级离心泵

DF series drum type balancing multi-stage centrifugal pump

PRODUCT CATALOG



Anhui Changyu pump and valve manufacturing Co., LTD

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CORPORATE INTRO

Anhui Changyu Pump & Valve Manufacturing Co., Ltd. was established in 2006 and has more than 20 years of industry experience. It integrates R&D, production, sales and service, Concentrating on the corrosion resistance and safe transportation of valuable fluids, with an annual output of 20,000 units.

Changyu is an industrial enterprise supported by the Xuancheng Municipal Government, covering an area of 20,000 square meters, and ranks among the top four industrial manufacturing enterprises in the region.

The company has passed ISO 9001, CE, CQC, KC and other certifications. It is a national high-tech enterprise with more than 50 patents and has won the titles of Xuancheng City's "Specialized, Refined and New" Enterprise (SRII), "Famous Trademark of Anhui Province" and "Contract-abiding and Credit-worthy".

Changyu products are sold to 30 regions in China and exported to more than 20 countries including Europe, Africa, and Central Asia.

At present, the new factory has been successfully completed. The total investment of this factory amounts to 100 million yuan, with a total area of 20,000 square meters. It has over 70 employees and is a digital factory integrating 5G technology and intelligence.

20000+ square meter

floor area

3500 Ten thousand yuan

Total investment

20000 Table

Annual production capacity

100+ indivual

Enterprise certificate

Development History

2006

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

2008

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

2009

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

2010

The innovation and research and development of UHB-ZK type double-end face modular mechanical seal have been realized, and the mechanical seal can be interchanged to the working conditions, and the installation dimensions are consistent.

2011

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

2012

Develop and mass-produce CYQ type fluoroplastic magnetic pump, and the technical level has reached a new

2014

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

2015

The company renamed to "Anhui Changyu Pump and Valve Manufacturing Co., Ltd." and embarked on the road of brand upgrading. It was honored the title of National High-tech Enterprise and won the title of "Anhui Province Special Small and Medium-sized Enterprises" for the first time. The products were selected the "Five Hundred" recommendation catalog of the national industrial field energy-saving and environmental protection industry.

2019

Develop 100UHB-400 type high-efficiency pump body and impeller, and innovate low-speed and high-lift pump.

2020

UHB series high temperature resistant non-leak fluoroplastic chemical corrosion pump won the new product certificate of Anhui Province.

2021

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

2022

Firstly obtained the "A-level Certificate of Two-Industrialization Integration Management System".

2023

Awarded the "Energy Management System Certification Certificate", further enhancing the green manufacturing capability.

2024

Successfully passed the ISO 14001 environmental management system and ISO 45001 occupational health and safety management system certification

ENTERPRISE QUALIFICATIONS

The recognition from professional institutions interprets the wisdom and efforts of Changyu over the years. After years of hardship and tempering, and in the process of continuous innovation and expansion, we have gained the approval of a large number of users and the society.

The recognition of professional institutions explains Changyu's continuous investment in products and technologies. After ten years of efforts, Changyu pumps are accelerating their emergence in the niche market of acid and alkali resistant chemical pumps.

CATALOG

目 录 Catalog

DF系列鼓式平衡多级离心泵

DF series drum type balancing multi-stage centrifugal pump

概 述

该系列为卧式单吸多级节段式鼓环结构多级离心泵，采用目前最先进可靠的水力模型，具备优异的综合性能与广泛的工况适应性。

在轴向力平衡方面，水泵采用经十几年实践验证的先进环鼓结构四级平衡系统，结合轴向间隙精准定位技术，实现轴向力的完全平衡，确保运行稳定。该技术属于我司完全自主知识产权，在变频运行、输送有少量含固液体、易腐蚀或易汽蚀介质等复杂工况中表现卓越，抗干扰能力强，可靠性高。

该系列泵还具有高效区宽、效率衰退周期长、性能范围广、运行平稳、噪音低、使用寿命长及安装维护便捷等优点，可满足多种工业场景对高效节能与稳定耐用的双重需求。

根据输送介质的不同，产品可选配相应材质，确保在腐蚀、磨损等苛刻条件下仍能安全可靠运行，是新一代高效、稳定、节能、维护周期长的理想工业泵设备。

为了提高综合效率，水力模型设计时采用合适的比转速降低圆盘损失、多流线变线等技术手段提高水力效率。转子和定子之间采用不同材质不同硬度摩擦副减小运动间隙提高容积效率。采用四级平衡技术提高机械效率和延长效率衰退周期。此结构泵综合效率提高3%以上，全生命周期综合节电率可达15%以上。

订货时需说明泵进口压力，以便选择合适的密封形式。

四级平衡原理：

平衡鼓和平衡套相互配合为第一级正推平衡，

Overview

This series is a horizontal single-suction multi-stage segmented drum ring structure multi-stage centrifugal pump, adopting the most and reliable hydraulic model at present, with excellent comprehensive performance and wide adaptability to working conditions.

In terms of axial force balance, the pump adopts an advanced four-stage system with ring drum structure, which has been verified by more than ten years of practice, combined with precise positioning technology of axial clearance, to achieve complete balance of axial force and ensure operation. This technology belongs to our company's completely independent intellectual property rights, and it performs excellently in complex conditions such as variable frequency operation, conveying a small amount solid-containing liquid, corrosive or easy to vaporize medium, etc., with strong anti-interference ability and high reliability.

This series of pumps also has advantages of wide efficient area, long efficiency decay cycle, wide performance range, stable operation, low noise, long service life, and convenient installation and maintenance, which can meet the dual of high efficiency and energy saving and stable and durable in various industrial scenarios.

According to the different conveying medium, the product can be equipped with corresponding materials to ensure safe reliable operation under harsh conditions such as corrosion and wear, and it is an ideal industrial pump equipment for the new generation of high efficiency, stability, energy saving, and long maintenance cycle.

In order to improve overall efficiency, the hydraulic model design adopts appropriate techniques such as reducing disc loss at specific speed and multi streamline transformation to enhance hydraulic efficiency. Friction pairs of different materials and hardness are used between the rotor and stator to reduce motion clearance and improve volumetric efficiency. Adopting four level balancing technology to improve mechanical efficiency and prolong efficiency degradation cycles. The comprehensive efficiency of this structure pump is increased by more than 3%, and the comprehensive energy-saving rate throughout the entire life cycle can reach more than 15%.

可平衡掉70%左右的不平衡轴向力。平衡鼓和压力调整环相互配合为二级反推平衡，和平衡掉20%左右的不平衡轴向力。压力调整环和节流盘相互配合可平衡掉10%左右的不平衡轴向力。精准定位系统为四级平衡，根据泵的级数不同调整各平衡室运动间隙，并承担水泵压力瞬时变化时承担瞬间不平衡轴向力。

水泵安装尺寸和平衡盘结构形式的泵完全相同，可以在不动基础、管线的情况下完成水泵的更换。

When placing an order, it is necessary to specify the inlet pressure of the pump in order to select the appropriate sealing form.

Four level balance principle: The balance drum and balance sleeve work together to form the first stage forward thrust balance, which can balance about 70% of the unbalanced axial force. The balance drum and pressure adjustment ring cooperate to form a two-stage reverse thrust balance, which balances about 20% of the unbalanced axial force. The pressure adjustment ring and throttle plate can work together to balance out about 10% of the unbalanced axial force. The precise positioning system is a four level balance system, which adjusts the movement clearance of each balance chamber according to the different stages of the pump, and bears the instantaneous unbalanced axial force when the pressure of the water pump changes instantaneously.

The installation size and balance plate structure of the water pump are exactly the same, and the replacement of the water pump can be completed without moving the foundation or pipeline.

鼓式自平衡泵的优势

该产品属于鼓式平衡结构，水泵完全无轴向窜动，运行过程中能确保叶轮与导叶的对中性不会造成偏磨，叶轮始终在高效区运行，工况偏离和变频运行对泵没有丝毫影响。适用于各种特殊工况条件，鼓式平衡结构采用新的材料工艺完全规避了常规多级泵易磨损、维修频率极高的弱点，该产品广泛应用于海水淡化、采卤、盐化工、锅炉给水、低汽蚀疏水、油田原油输送、隧道盾构作业含泥砂量极高的介质输送，以及矿山井下排水等复杂工况。

Advantage

The product belongs to drum type balancing structure, the water pump has no axial movement, and the impeller and guide vane can maintain their neutrality during without causing wear, the impeller always operates in the high efficiency zone, and the working condition deviation and frequency conversion operation have no effect on the pump. It is suitable for various working conditions, and the drum type balancing structure completely avoids the weakness of conventional multi-stage pumps that are prone to wear and have a high frequency of maintenance. This product is used in seawater desalination, brine mining, salt chemical industry, boiler feed water, low cavitation drainage, crude oil transportation in oilfields, tunnel shield construction high content of mud and sand, and drainage in mineshafts under complex working conditions.

技术特点

高效节能

坚持专业化生产，在产品的模型选择、模具的制作、水力部件的铸造工艺方面均有独特的方法，所有过流部件均采用精密铸造，保证流道尺寸与流道光洁度，比市场上普通的多级泵实测效率平均高出2%以上，具有很 好的节能效果。

先进的工艺设备

我公司为保证产品的装配性能，从国外进口了先进的零件清洗设备，每个零件在最终装配前均进行认真清洗。除正常的材质检测、水静压试验、静平衡试验外，所有6级以上的泵转子部件均进行小装后检查轴的跳 动，并控制跳动值在5丝内，然后按G2.5 级做动平衡试验。总装后再次检查轴与联轴器的跳动和轴向窜动，保证产品的装配质量。

材质选择

针对海水淡化、盐化工及采卤等强腐蚀并含固量较高等复杂工况，科学的材料选择及最先进的机械性能是保障设备寿命的核心。我们依据介质浓度与腐蚀性强弱，提供阶梯化的不锈钢解决方案：

- 316/316L：适用于中等腐蚀性环境，是许多化工流程设备的经济之选。
- 2205双相钢：凭借优异的耐氯化物应力腐蚀性能，广泛用于海水淡化及高浓度卤水工况。
- 2507超级双相钢：作为顶级选择，用于耐受极端高浓度、高温的苛刻介质，确保最大安全性与耐久性。

Technical Features

High efficiency and Energy saving

We have developed our unique technology for manufacturing, model designing and making, foundry techniques of hydraulic parts in that we take advantage of precise foundry on all wets parts to assure their brightness, cleanliness, and accurate dimensions. So the actual efficiency are at least 2% higher than other general multistage centrifugal pumps.

Advanced process equipment

Every single processed part will have cleaned by means of advanced imported cleaning equipment for better assembling concern. Besides material inspection, hydraulic test, static balancing testing, all pump rotors beyond 6 grades will have axial movement tested controlled within 5 millisecond, and then the balancing test shall be made according to G2.5 grade. Recheck axial movements of all shafts after assembly to assure the quality of the pump.

Selection of materials

For complex working conditions such as seawater desalination, salt chemical industry, and brine mining, which are highly corrosive and contain high, scientific material selection and the most advanced mechanical properties are the core to ensure the service life of equipment. We provide a ladderized stainless steel solution based on the concentration of the medium the strength of corrosion:

- 316/316L: Suitable for moderately corrosive environments, it is an economical choice for many chemical process equipment.
- 2205 duplex steel: Widely used in seawater desalination and high-concentration brine working conditions, it is known for its excellentide stress corrosion resistance.
- 2507 super duplex steel: As a top choice, it is used to withstand extreme high-concentration, high-temperature media, ensuring maximum safety and durability.

机封选择

在海水淡化、盐化工及采卤领域，机械密封的选型需充分考虑介质的强腐蚀性与易结晶特性。为此，我们优选集装式单端面或双端面机械密封作为核心结构，以确保运行稳定与维护便捷。在冲洗方案上，可应用PLAN 54（内外冲洗）、PLAN 21或PLAN 23（外接冷却）等多种方案，有效控制密封腔体的温度和压力。此外，针对性的材质选择——如采用高等级不锈钢、碳化硅及特种合金——是保障机封在恶劣工况下长周期安全运行的关键。

平衡系统材质选择

为应对严苛介质的磨损与腐蚀，该系统核心平衡组件（含平衡鼓、压力调整环、节流环、平衡鼓套）均采用2205双相不锈钢，并经过等离子低温渗氮处理，以实现基体耐腐蚀性与表面耐磨性的最佳结合。

常规多级泵的平衡原理

常规多级泵平衡机构是用平衡盘和平衡环来平衡轴向力，在一般工况的情况下，平衡盘和平衡环之间随着整个转子部件往两端自由游动会自动产生一个最佳的间隙来平衡轴向力。泵在工作中不是不是恒定的，随着工况不停的改变，使得泵的平衡力也不停的发生变化，整个转子部件往两端不停的窜动而引起平衡盘和平衡环两个面之间不停的开合，改变的频率越高，磨损就越快，转子部件的窜动量越来越大，当轴向间隙达到设备允许的最大值时，如果不及时更换平衡系统就会导致整个设备无法运行，甚至烧死，同时也改变了叶轮和导叶流道的对中性，泵的效率降低会明显，泵的震动和轴功率也会增加，电机温度也会随着平衡系统的磨损量上升，磨损量超过了叶轮和前盖板的理论间隙，叶轮前盖板和中段摩擦，轴功率大大增加，电机温度急剧升高，最后可能被烧毁。

Mechanical seal selection

In the fields of seawater desalination, salt chemical industry and brine mining, the selection of mechanical seals needs to fully consider the strongiveness and easy crystallization characteristics of the medium. To this end, we prefer to use modular single or double-end mechanical seals as the core structure to ensure stable operation and convenient. In terms of flushing scheme, a variety of schemes such as PLAN 54 (inner and outer flushing), PLAN 21 or PLAN 3 (external cooling) can be applied to effectively control the temperature and pressure of the sealing cavity. In addition, targeted material selection, such as the use of high-grade stainless, silicon carbide and special alloys, is the key to ensuring the safe operation of the mechanical seal in harsh conditions for a long period of time.

Material selection for balanced system

In order to deal with the wear and corrosion of harsh media, the core balancing components of the system (including the balancing drum, pressure regulating ring, throttle, and balancing drum sleeve) are all made of 2205 duplex stainless steel and treated with plasma low-temperature nitriding to achieve the best combination of corrosion resistance the matrix and abrasion resistance of the surface.

The principle of balancing in a conventional multistage pump

The balancing mechanism of the conventional multi-stage pump is to balance the axial force with the balance disk and the balance ring. In general working, a best gap is automatically generated between the balance disk and the balance ring to balance the axial force as the whole rotor component moves freely to both ends. The pump is not constant operation. With the continuous change of working conditions, the balancing force of the pump is also constantly changing, and the whole rotor component moves back and forth, causing the two faces of balance disk and the balance ring to open and close continuously. The higher the frequency of change, the faster the wear. The amount of the rotor component's movement becomes larger larger. When the axial clearance reaches the maximum allowable value of the equipment, if the balancing system is not replaced in time, it will lead to the failure of the entire equipment operate, or even burn out. It also changes the alignment of the impeller and guide vane passages, the pump efficiency will be significantly reduced, and the pump vibration and shaft will also increase. The motor temperature will also rise with the wear of the balancing system. If the wear amount exceeds the theoretical clearance of the impeller and the front cover plate, impeller front cover plate and the middle section will rub, the shaft power will increase greatly, the motor temperature will rise sharply, and it may be burned out in the end

自平衡系统的平衡原理

此平衡系统的基本结构是：随着系统一起工作的自平衡系统与函体之间平衡腔里的压力调节环之间建立了压力调节室。迷宫平衡体在运行过程中抵抗转子产生不平衡轴向力，使之往平衡室一端微动，同时节流环也相应打开，迷宫平衡体与压力调整环环轴向间隙变小，当压力调整环的压力腔压力大于平衡鼓与叶轮之间的压力时，迷宫平衡体会往叶轮方向微动，同时节流环维持了最佳的轴向平衡力，整个平衡系统中的轴向力实现了自然完全平衡。

通过调整定位轴承位置来实现自平衡系统最佳轴向间隙，为了适应设备在运行之中参数发生变化而打破平衡力，瞬间变化的不平衡轴向力由定位轴承承受。以保证泵能正常运行。

通过两个球轴承固定在轴承衬套里，衬套装在轴承体上，通过轴承体上的8个调整螺丝来调整整个转子部件的最近轴向间隙，它不受多级泵工况的微观变化，在工况微观变化的那一瞬间发生的轴向力由这两个轴承承受，所产生的热量通过轴承体冷却腔里面的循环冷却水来冷却（常温介质也可以不接冷却水）。调整间隙的方法是：开机达到泵所工作的工况3-5分钟后，松开连接轴承体的4个调整螺丝，泵的自平衡系统会自动运行到一个最佳位置，此时轴承的温升最低（用红外温度仪就可以测量），再固定这4个调整螺丝就可以了。整套系统操作维护非常简单实用，泵的使用寿命大大延长。

The principle of equilibrium of self-balancing system

The basic structure of this balancing system is: an automatic balancing system that works with the system establishes a pressure regulating chamber between the regulating ring and the balance cavity in the housing. The maze balance body resists the unbalanced axial force generated by the rotor during operation, causing it to move slightly towards the balance, and the throttle ring also opens correspondingly, reducing the axial clearance between the maze balance body and the pressure regulating ring, When the pressure in the pressure chamber of the pressure regulating is greater than the pressure between the balance drum and the impeller, the maze balance body will move slightly towards the impeller, and the throttle ring maintains the optimal axial balancing force and the axial force in the entire balancing system is naturally and completely balanced.

The optimal axial clearance of the self-balancing system is achieved by adjusting the position of the bearings. In order to adapt to the change of parameters in the equipment during operation and break the balancing force, the instantaneous change of the unbalanced axial force is borne by the locating. To ensure that the pump can operate normally.

The two ball bearings are fixed in the bearing liner, the liner is installed on the bearing body, and the entire rotor components closest axial clearance is adjusted by the 8 adjusting screws on the bearing body, which is not affected by the micro changes in the working conditions of the multistage pump, the axial force that occurs at the moment of micro changes in the working conditions is borne by these two bearings, and the heat generated is cooled by circulating cooling water in the cooling cavity the bearing body (room temperature medium can also not connect cooling water). The method of adjusting the clearance is: start the machine to reach the working conditions of the pump for -5 minutes, loosen the 4 adjusting screws connecting the bearing body, the self-balancing system of the pump will automatically run to the best position, when the temperature of the bearing is the lowest (can be measured with an infrared thermometer), and then fix these 4 adjusting screws. The whole system is very simple and practical to operate maintain, and the service life of the pump is greatly extended.

性能范围

泵吸入、排出口径 40~300mm
流量 Q=3.75~850m³/h
扬程 H=19~816m
液体温度 T=0~80℃
转速 n=2980 / 1480r/min
（注：本册中所列性能参数值为常温清水测试所得的值。）

Performance Range

Inlet and outlet diameter of the pump:40~300mm
Capacity Q=3.75~850m³/h
Head H=19~816m
Liquid temperature T=0~80℃
Speed n=2980 / 1480r/min
Note: The performance parameters in this book and the normal temperature water testing values.

型号说明

DF600-60×6

DF —耐腐鼓式多级离心泵
600 — 表示设计点流量为600m³ /h
60 — 表示设计点单级扬程为60m
6 — 表示级数为6级

如150 DF 30×7
150 — 表示泵吸入口直径为150mm
DF — 表示耐腐鼓式多级离心泵
30 — 表示泵设计点单级扬程为30m
7 — 表示级数为7级

Model description

EX:DF600 - 60×6

DF — Corrosion-resistant drum-type multi-stage centrifugal pump
600 — The design point of capacity is 600m³/h
60 — The design point of single-stage head is 60m
6 — The pump stage is 6

EX:150 DF 30×7
150 — the pump inlet diameter is 150mm
DF — Corrosion-resistant drum-type multi-stage centrifugal pump
30 — The design point of single-stage head is 30m
7—The pump stage is 7

配套电机

电机常规配置为Y 系列电机。对用于含有可燃易 爆气体的矿井下运行的泵，必须采用防爆电机并要求具 有相应的防护等级和防爆标志。

Auxiliary Molar

Y series of motors are for common use. Explosive-proof motor is a must under circumstances of inflammable and explosive while insulation class and explosive-proof mark shall be indicated.

执行标准

GB/T 5657-2013《离心泵技术条件(Ⅲ类)》
JB/T 1051-2006《多级离心泵型式与基本参数》
MT/T 114-2005《煤矿用多级离心泵》
GB/T 13006-2013《离心泵、混流泵、轴流泵、汽蚀余量》
GB/T 13007-2011《离心泵效率》

Executive Standard

GB/T5657-2013 Technical specification for centrifugal pumps (class Ⅲ)
JB/T1051-2006 Multistage centrifugal pump-Types and basic parameters
MT/T114-2005 Multi-stage centrifugal pumps for coal mines
GB/T13006-2013 NPSH for centrifugal, mixed flow and axial flow pumps
GB/T13007-2011 Centrifugal pump – Efficiency

产品特点

DF 型泵系卧式、单吸、分段式多级离心泵，吸入口为水平方向，吐出口为垂直向上。泵的进水段、中段、出水段等泵壳体部分通过拉紧螺栓联结成一 体，两端设有轴承部件，并根据泵的扬程选择泵的级数。

该系列泵转子部分主要由轴及安装在轴上的叶轮、轴套、平衡系统等零件组成，其中叶轮的数量根据泵的级数而定。轴上零件通过平键和轴螺母紧固使之与轴联为一体。整个转子驱动端一个滚柱轴承和非驱动端两个滚珠轴承支撑，如果采用滑动轴承，非驱动端滑动轴承还需增加精准定位支承。轴承均不承受轴向力，其不平衡轴向力由鼓式平衡系统平衡。

泵的进水段、中段、出水段之间的密封面均采用密封胶或“O”形圈密封，转子部分与固定部分之间装有密封环、导叶套等进行密封，当密封环和导叶套的磨损程度已影响泵的工作性能时应及时予以更换。

轴的密封形式有机械密封和填料密封两种。泵采用填料密封时，填料环的位置安放要正确，填料松紧程度必须适当，以液体能一滴一滴渗出为宜。

Product features

The DF type pumps are horizontal, single-suction, segmented multi-stageifugal pumps with the suction inlet in the horizontal direction and the discharge outlet in the vertical upward direction. The pump's suction section, middle section, discharge section,., are connected as a whole by tightening bolts, with bearings at both ends, and the number of pump stages is selected according to the pump's head.

The rotor of this series of pumps mainly consists of shafts and parts such as impellers, shaft sleeves, and balance systems installed on the shafts. The number of impellers depends on number of pump stages. The parts on the shaft are fastened together with the shaft by means of flat keys and shaft nuts. The entire rotor is supported by a roller bearing at driven end and two ball bearings at the non-driven end. If sliding bearings are used, a precise positioning support is also required at the non-driven end. The bearings do bear axial force, and the unbalanced axial force is balanced by the drum-type balancing system.

The sealing surfaces between the pump's suction section, section, and discharge section are sealed with sealant or "O" rings, and seals such as seal rings and guide vane sleeves are installed between the rotor part and the fixed. When the wear of the

泵的各种密封元件装在密封腔内，腔内要通入一定压力的水，起水封、水冷或水润滑作用。在轴封处装有可更换的轴套，以保护泵轴。

此系列型号泵转子部件无窜动量，当该型泵一般采用滚动轴承、干油润滑结构（D85-67、D155-67型泵也可采用滑动轴承、稀油润滑结构）

该系列泵通过弹性联轴器由原动机直接驱动。从原动机方向看，泵为顺时针方向旋转。

（用户如对泵的材料和结构有特殊要求，可与本公司协商解决，本公司可根据用户需求变换水泵进出口方向，并可实现该系列泵的多出口结构和功能。）

seal ring and guide vane sleeve has affected the pump's working performance, they should be replaced in time.

There are two types of shaft seals: mechanical seals and stuffing box seals. When the pump uses a stuffing box seal, the position of the stuffing ring must be correct, and the tightness of the stuffing must appropriate, so that the liquid can seep out drop by drop. Various sealing elements of the pump are installed in the seal chamber, and the chamber is filled with water under a pressure, which plays the role of water seal, water cooling, or water lubrication. A replaceable shaft sleeve is installed at the shaft seal to protect the pump shaft.

This series of pumps has no axial movement in the rotor components. When this type of pump is generally used, it adopts a rolling bearing, dry oil lubrication structure (D8567, D155-67 type pumps can also adopt a sliding bearing, thin oil lubrication structure).

This series of pumps is directly driven by the mover through an elastic coupling. Looking from the direction of the prime mover, the pump rotates clockwise.

(If the user has special requirements for the material and of the pump, it can be negotiated with our company to solve it. Our company can change the inlet and outlet direction of the water pump according to the user's needs, can also achieve the multi-outlet structure and function of this series of pumps.)

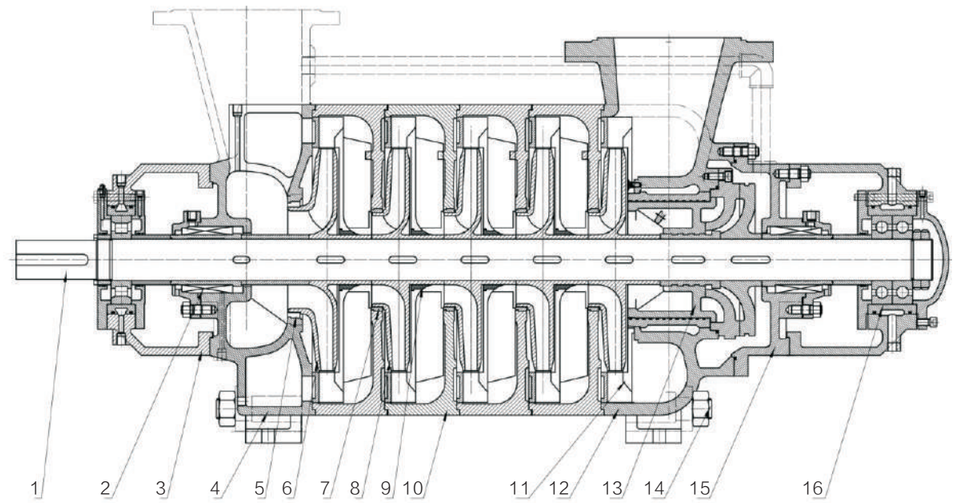
过流部件材质

技术协议可要求过流部件材质有：铸铁、球墨铸铁、耐磨合金钢、耐磨合金铸铁、耐热钢、各种牌号不锈钢、钛合金、陶瓷等材料。

Material of wet Parts

The technical agreement may require the following materials for the components subject to flow: cast iron, ductile iron, wear-resistant alloy steel, wear-resistant alloy cast iron, heat-resistant steel, various grades of stainless steel, titanium alloys, ceramics, etc.

结构图
Structure diagram



1	主轴 Main shaf	5	首级密封环 Front-stage seal ring	9	导叶密封环 Guide vanes seal ring	13	平衡系统 Balancing system
2	机械密封 Mechanical seal	6	首级叶轮 Front-stage impeller	10	中段 Stage casing	14	拉紧螺栓 Tie bolt
3	轴承体甲 Bearing housing	7	密封环 Seal ring	11	末级导叶 End of guide vanes	15	尾盖 End gland
4	进水段 Suction casing	8	叶轮 Impeller	12	出水段 Discharge casing	16	精准定位系统 Precision positioning system

性能参数
Performance parameters

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 6-25×(2~12)	2	3.75 6.3 7.5	1.04 1.75 2.08	51 50 49	2950	35 46.5 48	1.49 1.84 2.08	3	Y100L-2	2.0 2.0 2.5	Φ139.5	77.2	33
	3	3.75 6.3 7.5	1.04 1.75 2.08	76.5 75 73.5	2950	35 46.5 48	2.23 2.77 3.12	5.5	Y132S1-2	2.0 2.0 2.5	Φ139.5	85.5	64
	4	3.75 6.3 7.5	1.04 1.75 2.08	102 100 98	2950	35 46.5 48	2.98 3.69 4.16	7.5	Y132S2-2	2.0 2.0 2.5	Φ139.5	94.4	70
	5	3.75 6.3 7.5	1.04 1.75 2.08	127.5 125 122.5	2950	35 46.5 48	3.73 4.61 5.20	7.5	Y132S2-2	2.0 2.0 2.5	Φ139.5	102.9	70
	6	3.75 6.3 7.5	1.04 1.75 2.08	153 150 147	2950	35 46.5 48	4.47 5.53 6.24	11	Y160M1-2	2.0 2.0 2.5	Φ139.5	111.5	117
	7	3.75 6.3 7.5	1.04 1.75 2.08	178.5 175 171.5	2950	35 46.5 48	5.22 6.45 7.28	11	Y160M1-2	2.0 2.0 2.5	Φ139.5	120.0	117
	8	3.75 6.3 7.5	1.04 1.75 2.08	204 200 196	2950	35 46.5 48	5.96 7.37 8.32	15	Y160M2-2	2.0 2.0 2.5	Φ139.5	128.6	125
	9	3.75 6.3 7.5	1.04 1.75 2.08	229.5 225 220.5	2950	35 46.5 48	6.71 8.29 9.36	15	Y160M2-2	2.0 2.0 2.5	Φ139.5	137.1	125
DF 6-25×(2~12)	10	3.75 6.3 7.5	1.04 1.75 2.08	255 250 245	2950	35 46.5 48	7.45 9.21 10.40	18.5	Y160L-2	2.0 2.0 2.5	Φ139.5	145.7	147
	11	3.75 6.3 7.5	1.04 1.75 2.08	280.5 275 269.5	2950	35 46.5 48	8.20 10.13 11.44	18.5	Y160L-2	2.0 2.0 2.5	Φ139.5	154.2	147
	12	3.75 6.3 7.5	1.04 1.75 2.08	306 300 294	2950	35 46.5 48	8.94 11.05 12.48	18.5	Y160L-2	2.0 2.0 2.5	Φ139.5	162.8	147
DF 6-50×(2~14)	2	3.75 6.3 7.5	1.04 1.75 2.08	104 100 96	2950	28 30 29	3.79 5.72 6.76	11	Y160M1-2	3.0 3.0 3.5	Φ198	142.0	117
	3	3.75 6.3 7.5	1.04 1.75 2.08	156 150 144	2950	28 30 29	5.69 8.58 10.1	15	Y160M2-2	3.0 3.0 3.5	Φ198	156.0	125
	4	3.75 6.3 7.5	1.04 1.75 2.08	208 200 192	2950	28 30 29	7.58 11.4 13.5	18.5	Y160L-2	3.0 3.0 3.5	Φ198	170.0	147
	5	3.75 6.3 7.5	1.04 1.75 2.08	260 250 240	2950	28 30 29	9.48 14.3 16.9	22	Y180M-2	3.0 3.0 3.5	Φ198	183.6	180
	6	3.75 6.3 7.5	1.04 1.75 2.08	312 300 288	2950	28 30 29	11.4 17.2 20.3	30	Y200L1-2	3.0 3.0 3.5	Φ198	197.2	240
	7	3.75 6.3 7.5	1.04 1.75 2.08	364 350 336	2950	28 30 29	13.3 20.0 23.7	30	Y200L1-2	3.0 3.0 3.5	Φ198	210.9	240
	8	3.75 6.3 7.5	1.04 1.75 2.08	416 400 384	2950	28 30 29	15.2 22.9 27.0	37	Y200L2-2	3.0 3.0 3.5	Φ198	224.5	260
	9	3.75 6.3 7.5	1.04 1.75 2.08	468 450 432	2950	28 30 29	17.1 25.7 30.4	37	Y200L2-2	3.0 3.0 3.5	Φ198	238.1	260
	10	3.75 6.3 7.5	1.04 1.75 2.08	520 500 480	2950	28 30 29	19.0 28.6 33.8	45	Y225M-2	3.0 3.0 3.5	Φ198	251.7	325

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 6-50×(2~14)	11	3.75 6.3 7.5	1.04 1.75 2.08	572 550 528	2950	28 30 29	20.8 31.4 37.2	45	Y225M-2	3.0 3.0 3.5	Φ198	265.3	325
	12	3.75 6.3 7.5	1.04 1.75 2.08	624 600 576	2950	28 30 29	22.7 34.3 40.6	55	Y250M-2	3.0 3.0 3.5	Φ198	279.0	395
	13	3.75 6.3 7.5	1.04 1.75 2.08	676 650 624	2950	28 30 29	24.6 37.1 43.9	55	Y250M-2	3.0 3.0 3.5	Φ198	293.0	395
	14	3.75 6.3 7.5	1.04 1.75 2.08	728 700 672	2950	28 30 29	26.5 40.0 47.4	55	Y250M-2	3.0 3.0 3.5	Φ198	308.0	395
DF 12-25×(2~12)	2	7.5 12.5 15	2.08 3.47 4.17	56.4 50 46	2950	44 54 53	2.62 3.15 3.55	5.5	Y132S1-2	2.0 2.0 2.5	Φ146	78.7	64
	3	7.5 12.5 15	2.08 3.47 4.17	84.6 75 69	2950	44 54 53	3.93 4.73 5.32	7.5	Y132S2-2	2.0 2.0 2.5	Φ146	87.3	70
	4	7.5 12.5 15	2.08 3.47 4.17	112.8 100 92	2950	44 54 53	5.24 6.30 7.09	11	Y160M1-2	2.0 2.0 2.5	Φ146	95.9	117
	5	7.5 12.5 15	2.08 3.47 4.17	141 125 115	2950	44 54 53	6.55 7.88 8.86	11	Y160M1-2	2.0 2.0 2.5	Φ146	104.4	117
	6	7.5 12.5 15	2.08 3.47 4.17	169.2 150 138	2950	44 54 53	7.85 9.46 10.64	15	Y160M2-2	2.0 2.0 2.5	Φ146	113.0	125
	7	7.5 12.5 15	2.08 3.47 4.17	197.4 175 161	2950	44 54 53	9.16 11.0 12.41	15	Y160M2-2	2.0 2.0 2.5	Φ146	121.5	125
	8	7.5 12.5 15	2.08 3.47 4.17	225.6 200 184	2950	44 54 53	10.47 12.61 14.18	18.5	Y160L-2	2.0 2.0 2.5	Φ146	130.1	147
	9	7.5 12.5 15	2.08 3.47 4.17	253.8 225 207	2950	44 54 53	11.78 14.18 15.95	18.5	Y160L-2	2.0 2.0 2.5	Φ146	138.6	147

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 12-25×(2~12)	10	7.5 12.5 15	2.08 3.47 4.17	282 250 230	2950	44 54 53	13.09 15.76 17.73	22	Y180M-2	2.0 2.0 2.5	Φ146	147.2	180
	11	7.5 12.5 15	2.08 3.47 4.17	310.2 275 253	2950	44 54 53	14.4 17.34 19.5	22	Y180M-2	2.0 2.0 2.5	Φ146	155.7	180
	12	7.5 12.5 15	2.08 3.47 4.17	338.4 300 276	2950	44 54 53	15.7 18.9 21.3	30	Y200L1-2	2.0 2.0 2.5	Φ146	164.3	240
DF 12-50×(2~14)	2	7.5 12.5 15	2.08 3.47 4.17	108 100 93	2950	29 36 37.8	7.6 9.5 10.1	15	Y160M2-2	2.0 2.0 2.5	Φ198	142.0	125
	3	7.5 12.5 15	2.08 3.47 4.17	162 150 139.5	2950	29 36 37.8	11.4 14.2 15.1	18.5	Y160L-2	2.0 2.0 2.5	Φ198	156.0	147
	4	7.5 12.5 15	2.08 3.47 4.17	216 200 186	2950	29 36 37.8	15.2 18.9 20.1	30	Y200L1-2	2.0 2.0 2.5	Φ198	170.0	240
	5	7.5 12.5 15	2.08 3.47 4.17	270 250 232.5	2950	29 36 37.8	19.9 23.6 25.1	30	Y200L1-2	2.0 2.0 2.5	Φ198	183.6	240
	6	7.5 12.5 15	2.08 3.47 4.17	324 300 279	2950	29 36 37.8	22.8 28.4 30.2	37	Y200L2-2	2.0 2.0 2.5	Φ198	197.2	260
	7	7.5 12.5 15	2.08 3.47 4.17	378 350 325.5	2950	29 36 37.8	26.6 33.1 35.2	45	Y225M-2	2.0 2.0 2.5	Φ198	210.9	325
	8	7.5 12.5 15	2.08 3.47 4.17	432 400 372	2950	29 36 37.8	30.4 37.8 40.2	45	Y225M-2	2.0 2.0 2.5	Φ198	224.5	325
	9	7.5 12.5 15	2.08 3.47 4.17	486 450 418.5	2950	29 36 37.8	34.3 42.6 45.3	55	Y250M-2	2.0 2.0 2.5	Φ198	238.1	395
	10	7.5 12.5 15	2.08 3.47 4.17	540 500 465	2950	29 36 37.8	38.1 47.3 50.3	55	Y250M-2	2.0 2.0 2.5	Φ198	251.7	395

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 12-50×(2~14)	11	7.5 12.5 15	2.08 3.47 4.17	594 550 511.5	2950	29 36 37.8	41.9 52.0 55.3	75	Y280S-2	2.0 2.0 2.5	Φ198	265.3	500
	12	7.5 12.5 15	2.08 3.47 4.17	648 600 558	2950	29 36 37.8	45.7 56.8 60.3	75	Y280S-2	2.0 2.0 2.5	Φ198	279.0	500
	13	7.5 12.5 15	2.08 3.47 4.17	702 650 604.5	2950	29 36 37.8	49.5 61.5 65.4	75	Y280S-2	2.0 2.0 2.5	Φ198	293.0	500
	14	7.5 12.5 15	2.08 3.47 4.17	756 700 651	2950	37.8 45 45.9	53.3 66.2 70.4	75	Y280S-2	2.0 2.0 2.5	Φ198	307.0	500
DF 15-50×(2-12)	2	12 15 18	3.33 4.16 5	104 100 96	2980	47 50 51	7.23 8.17 9.22	15	Y160M2-2	2.0 2.2 2.7	Φ199	200	125
	3	12 15 18	3.33 4.16 5	156 150 144	2980	47 50 51	10.84 12.25 13.84	18.5	Y160L-2	2.0 2.2 2.7	Φ199	225	147
	4	12 15 18	3.33 4.16 5	208 200 192	2980	47 50 51	14.46 16.33 18.45	22	Y180M-2	2.0 2.2 2.7	Φ199	250	180
	5	12 15 18	3.33 4.16 5	261 250 240	2980	47 50 51	18.14 20.42 23.06	30	Y200L1-2	2.0 2.2 2.7	Φ199	275	240
	6	12 15 18	3.33 4.16 5	313 300 288	2980	47 50 51	21.75 24.50 27.67	30	Y200L1-2	2.0 2.2 2.7	Φ199	300	240
	7	12 15 18	3.33 4.16 5	365 350 336	2980	47 50 51	25.37 28.58 32.28	37	Y200L2-2	2.0 2.2 2.7	Φ199	325	260
	8	12 15 18	3.33 4.16 5	317 400 384	2980	47 50 51	28.98 32.67 36.89	45	Y225M-2	2.0 2.2 2.7	Φ199	350	325
	9	12 15 18	3.33 4.16 5	469 450 432	2980	47 50 51	32.60 36.75 41.51	45	Y225M-2	2.0 2.2 2.7	Φ199	375	325

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 15-50×(2-12)	10	12 15 18	3.33 4.16 5	521 500 480	2980	47 50 51	36.21 40.83 46.12	55	Y250M-2	2.0 2.2 2.7	Φ199	400	395
	11	12 15 18	3.33 4.16 5	573 550 528	2980	47 50 51	39.83 44.92 50.73	55	Y250M-2	2.0 2.2 2.7	Φ199	425	395
	12	12 15 18	3.33 4.16 5	625 600 578	2980	47 50 51	43.44 49.00 55.34	75	Y280S-2	2.0 2.2 2.7	Φ199	450	500
DF 25-30×(2~10)	2	15 25 30	4.17 6.94 8.33	68 60 55	2950	50 62 63	5.56 6.58 7.14	11	Y160M1-2	2.2 2.2 2.4	Φ160	150.7	117
	3	15 25 30	4.17 6.94 8.33	102 90 82.5	2950	50 62 63	8.33 9.88 10.7	15	Y160M2-2	2.2 2.2 2.4	Φ160	166.3	125
	4	15 25 30	4.17 6.94 8.33	136 120 110	2950	50 62 63	11.11 13.1 14.26	18.5	Y160L-2	2.2 2.2 2.4	Φ160	181.8	147
	5	15 25 30	4.17 6.94 8.33	170 150 137.5	2950	50 62 63	13.89 16.47 17.83	22	Y180M-2	2.2 2.2 2.4	Φ160	197.3	180
	6	15 25 30	4.17 6.94 8.33	204 180 165	2950	50 62 63	16.67 19.77 21.4	30	Y200L1-2	2.2 2.2 2.4	Φ160	212.9	240
	7	15 25 30	4.17 6.94 8.33	238 210 192.5	2950	50 62 63	19.44 23.1 24.96	30	Y200L1-2	2.2 2.2 2.4	Φ160	228.4	240
	8	15 25 30	4.17 6.94 8.33	272 240 220	2950	50 62 63	22.22 26.4 28.53	37	Y200L2-2	2.2 2.2 2.4	Φ160	244.0	260
	9	15 25 30	4.17 6.94 8.33	306 270 247.5	2950	50 62 63	25.0 29.65 32.1	37	Y200L2-2	2.2 2.2 2.4	Φ160	259.5	260
	10	15 25 30	4.17 6.94 8.33	340 300 275	2950	50 62 63	27.8 32.9 35.7	45	Y225M-2	2.2 2.2 2.4	Φ160	275.0	325

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 25-50×(2~12)	2	15 25 30	4.17 6.94 8.33	103 100 93	2950	44 54 53	9.6 12.6 14.3	18.5	Y160L-2	2.4 2.7 2.8	Φ196	261.2	147
	3	15 25 30	4.17 6.94 8.33	154.5 150 139.5	2950	44 54 53	14.3 18.9 21.5	30	Y200L1-2	2.4 2.7 2.8	Φ196	280.0	240
	4	15 25 30	4.17 6.94 8.33	206 200 186	2950	44 54 53	19.1 25.2 28.7	30	Y200L1-2	2.4 2.7 2.8	Φ196	298.8	240
	5	15 25 30	4.17 6.94 8.33	257.5 250 232.5	2950	44 54 53	23.9 31.5 35.8	45	Y225M-2	2.4 2.7 2.8	Φ196	317.7	325
	6	15 25 30	4.17 6.94 8.33	309 300 279	2950	44 54 53	28.7 37.8 43.0	55	Y250M-2	2.4 2.7 2.8	Φ196	336.5	395
	7	15 25 30	4.17 6.94 8.33	360.5 350 325.5	2950	44 54 53	33.5 44.1 50.2	55	Y250M-2	2.4 2.7 2.8	Φ196	355.3	395
	8	15 25 30	4.17 6.94 8.33	412 400 372	2950	44 54 53	38.3 50.4 57.3	75	Y280S-2	2.4 2.7 2.8	Φ196	374.2	500
	9	15 25 30	4.17 6.94 8.33	463.5 450 418.5	2950	44 54 53	43.0 56.7 64.5	75	Y280S-2	2.4 2.7 2.8	Φ196	393.0	500
	10	15 25 30	4.17 6.94 8.33	515 500 465	2950	44 54 53	47.8 63.0 71.7	90	Y280M-2	2.4 2.7 2.8	Φ196	411.8	550
	11	15 25 30	4.17 6.94 8.33	566 550 511.5	2950	44 54 53	52.5 69.3 78.8	90	Y280M-2	2.4 2.7 2.8	Φ196	430.7	550
	12	15 25 30	4.17 6.94 8.33	618 600 558	2950	44 54 53	57.4 75.6 86.0	110	Y315S-2	2.4 2.7 2.8	Φ196	449.5	875
DF 46-30×(2~10)	2	30 46 55	8.33 12.8 15.3	68 60 54	2950	64 70 68	8.68 10.74 11.89	15	Y160M2-2	2.4 3.0 4.6	Φ162	152.2	125

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 46-30×(2~10)	3	30 46 55	8.33 12.8 15.3	102 90 81	2950	64 70 68	13.02 16.11 17.84	22	Y180M-2	2.4 3.0 4.6	Φ162	167.8	180
	4	30 46 55	8.33 12.8 15.3	136 120 108	2950	64 70 68	17.36 21.48 23.79	30	Y200L1-2	2.4 3.0 4.6	Φ162	183.3	240
	5	30 46 55	8.33 12.8 15.3	170 150 135	2950	64 70 68	21.7 26.85 29.74	37	Y200L2-2	2.4 3.0 4.6	Φ162	198.8	260
	6	30 46 55	8.33 12.8 15.3	204 180 162	2950	64 70 68	26.04 32.21 35.68	37	Y200L2-2	2.4 3.0 4.6	Φ162	214.4	260
	7	30 46 55	8.33 12.8 15.3	238 210 189	2950	64 70 68	30.38 37.58 41.63	45	Y225M-2	2.4 3.0 4.6	Φ162	229.9	325
	8	30 46 55	8.33 12.8 15.3	272 240 216	2950	64 70 68	34.72 42.95 47.58	55	Y250M-2	2.4 3.0 4.6	Φ162	245.5	395
	9	30 46 55	8.33 12.8 15.3	306 270 243	2950	64 70 68	39.06 48.32 53.53	55	Y250M-2	2.4 3.0 4.6	Φ162	261.0	395
	10	30 46 55	8.33 12.8 15.3	340 300 270	2950	64 70 68	43.4 53.69 59.47	75	Y280S-2	2.4 3.0 4.6	Φ162	276.5	500
DF 46-50×(2~12)	2	30 46 55	8.33 12.78 15.28	111 100 92	2950	54 63 64	16.78 19.88 21.52	30	Y200L1-2	2.5 2.8 3.2	Φ208	262.7	240
	3	30 46 55	8.33 12.78 15.28	166.5 150 138	2950	54 63 64	25.19 29.83 32.28	37	Y200L2-2	2.5 2.8 3.2	Φ208	281.5	260
	4	30 46 55	8.33 12.78 15.28	222 200 184	2950	54 63 64	33.59 39.77 43.04	45	Y225M-2	2.5 2.8 3.2	Φ208	300.3	325
	5	30 46 55	8.33 12.78 15.28	277.5 250 230	2950	54 63 64	41.98 49.71 53.80	75	Y280S-2	2.5 2.8 3.2	Φ208	319.2	395

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight t	电机重 Moter Weight
		m³/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 46-50×(2~12)	6	30 46 55	8.33 12.78 15.28	333 300 276	2950	54 63 64	50.38 59.65 64.56	75	Y280S-2	2.5 2.8 3.2	Φ208	338.0	500
	7	30 46 55	8.33 12.78 15.28	388.5 350 322	2950	54 63 64	58.78 69.60 75.32	90	Y280M-2	2.5 2.8 3.2	Φ208	356.8	550
	8	30 46 55	8.33 12.78 15.28	444 400 368	2950	54 63 64	67.20 79.52 86.08	90	Y280M-2	2.5 2.8 3.2	Φ208	375.7	550
	9	30 46 55	8.33 12.78 15.28	499.5 450 414	2950	54 63 64	75.56 89.48 96.84	110	Y315S-2	2.5 2.8 3.2	Φ208	394.5	875
	10	30 46 55	8.33 12.78 15.28	555 500 460	2950	54 63 64	83.97 99.42 107.60	132	Y315M-2	2.5 2.8 3.2	Φ208	412.3	950
	11	30 46 55	8.33 12.78 15.28	610.5 550 506	2950	54 63 64	92.37 109.36 118.36	132	Y315M-2	2.5 2.8 3.2	Φ208	432.2	950
	12	30 46 55	8.33 12.78 15.28	666 600 552	2950	54 63 64	100.8 119.28 129.12	160	Y315L1-2	2.5 2.8 3.2	Φ208	451.0	1070
DF 48-50×(2-12)	2	35 48 60	9.7 13.3 16.7	110 100 84	2980	56 67 68	18.72 19.50 20.18	30	Y200L1-2	2.5 2.8 3.2	Φ205	267	240
	3	35 48 60	9.7 13.3 16.7	165 150 126	2980	56 67 68	28.07 29.25 30.26	37	Y200L2-2	2.5 2.8 3.2	Φ205	286	260
	4	35 48 60	9.7 13.3 16.7	220 200 168	2980	56 67 68	37.43 39.00 40.35	45	Y225M-2	2.5 2.8 3.2	Φ205	305	325
	5	35 48 60	9.7 13.3 16.7	275 250 210	2980	56 67 68	46.79 48.76 50.44	55	Y250M-2	2.5 2.8 3.2	Φ205	324	395
	6	35 48 60	9.7 13.3 16.7	330 300 252	2980	56 67 68	56.15 58.51 60.53	75	Y280S-2	2.5 2.8 3.2	Φ205	343	500

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight t	电机重 Moter Weight
		m³/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 48-50×(2-12)	7	35 48 60	9.7 13.3 16.7	385 350 294	2980	56 67 68	65.50 68.26 70.62	90	Y280M-2	2.5 2.8 3.2	Φ205	365	550
	8	35 48 60	9.7 13.3 16.7	440 400 336	2980	56 67 68	74.86 78.01 80.71	90	Y280M-2	2.5 2.8 3.2	Φ205	390	550
	9	35 48 60	9.7 13.3 16.7	495 450 378	2980	56 67 68	84.22 87.76 90.79	110	Y315S-2	2.5 2.8 3.2	Φ205	420	875
	10	35 48 60	9.7 13.3 16.7	550 500 420	2980	56 67 68	93.58 97.51 100.88	132	Y315M-2	2.5 2.8 3.2	Φ205	450	950
	11	35 48 60	9.7 13.3 16.7	605 550 462	2980	56 67 68	102.93 107.26 110.97	132	Y315M-2	2.5 2.8 3.2	Φ205	480	950
	12	35 48 60	9.7 13.3 16.7	660 600 504	2980	56 67 68	112.29 117.01 121.06	160	Y315L1-2	2.5 2.8 3.2	Φ205	510	1070
DF 60-50×(2~12)	2	40 60 75	11.11 16.67 20.83	109 100 90	2950	56 67 68	21.22 24.40 27.05	30	Y200L1-2	3.8 4.0 4.2	Φ210	310	240
	3	40 60 75	11.11 16.67 20.83	163 150 136	2950	56 67 68	31.73 36.60 40.88	45	Y225M-2	3.8 4.0 4.2	Φ210	332	325
	4	40 60 75	11.11 16.67 20.83	218 200 183	2950	56 67 68	42.43 48.81 55.00	75	Y280S-2	3.8 4.0 4.2	Φ210	353	500
	5	40 60 75	11.11 16.67 20.83	272 250 228	2950	56 67 68	52.94 61.01 68.53	75	Y280S-2	3.8 4.0 4.2	Φ210	374	500
	6	40 60 75	11.11 16.67 20.83	327 300 272	2950	56 67 68	63.65 73.21 81.75	90	Y280M-2	3.8 4.0 4.2	Φ210	395	550
	7	40 60 75	11.11 16.67 20.83	381 350 320	2950	56 67 68	74.16 85.41 96.18	110	Y315S-2	3.8 4.0 4.2	Φ210	417	875

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight t	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 60-50×(2~12)	8	40 60 75	11.11 16.67 20.83	436 400 366	2950	56 67 68	84.96 97.61 110.00	132	Y315M-2	3.8 4.0 4.2	Φ210	428	950
	9	40 60 75	11.11 16.67 20.83	490 450 411	2950	56 67 68	95.38 109.81 123.53	132	Y315M-2	3.8 4.0 4.2	Φ210	459	950
	10	40 60 75	11.11 16.67 20.83	545 500 457	2950	56 67 68	106.08 122.01 137.35	160	Y3156L1-2	3.8 4.0 4.2	Φ210	480	1070
	11	40 60 75	11.11 16.67 20.83	600 550 503	2950	56 67 68	116.79 134.22 151.18	160	Y3156L1-2	3.8 4.0 4.2	Φ210	501	1070
	12	40 60 75	11.11 16.67 20.83	654 600 549	2950	56 67 68	127.30 146.42 165.00	185	Y3156L2-2	3.8 4.0 4.2	Φ210	522	1120
DF 85-45×(2~9)	2	55 85 100	15.3 23.6 27.8	102 90 78	2950	63 72 70	24.25 28.92 30.35	37	Y200L2-2	3.2 4.2 5.2	Φ200	210.7	260
	3	55 85 100	15.3 23.6 27.8	153 135 117	2950	63 72 70	36.38 43.37 45.52	55	Y250M-2	3.2 4.2 5.2	Φ200	232.0	395
	4	55 85 100	15.3 23.6 27.8	204 180 156	2950	63 72 70	48.5 57.82 60.7	75	Y280S-2	3.2 4.2 5.2	Φ200	253.3	500
	5	55 85 100	15.3 23.6 27.8	255 225 195	2950	63 72 70	60.63 72.28 75.86	90	Y280M-2	3.2 4.2 5.2	Φ200	274.6	550
	6	55 85 100	15.3 23.6 27.8	306 270 234	2950	63 72 70	72.75 86.73 91.04	110	Y315S-2	3.2 4.2 5.2	Φ200	295.9	875
	7	55 85 100	15.3 23.6 27.8	357 315 273	2950	63 72 70	84.88 101.2 106.2	132	Y315M-2	3.2 4.2 5.2	Φ200	317.2	950
	8	55 85 100	15.3 23.6 27.8	408 360 312	2950	63 72 70	97.0 115.6 121.4	132	Y315M-2	3.2 4.2 5.2	Φ200	338.5	950

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight t	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 85-45×(2~9)	9	55 85 100	15.3 23.6 27.8	459 405 351	2950	63 72 70	109.1 130.1 136.6	160	Y315L1-2	3.2 4.2 5.2	Φ200	359.8	1070
DF 85-67×(2~9)	2	55 85 100	15.3 23.6 27.8	148 134 122	2950	58 68 68	38.2 45.6 48.9	55	Y250M-2	3.3 4.0 4.4	Φ235	428	395
	3	55 85 100	15.3 23.6 27.8	222 201 183	2950	58 68 68	57.3 68.4 73.3	90	Y280M-2	3.3 4.0 4.4	Φ235	498	550
	4	55 85 100	15.3 23.6 27.8	296 268 244	2950	58 68 68	76.4 91.2 97.7	110	Y315S-2	3.3 4.0 4.4	Φ235	568	875
	5	55 85 100	15.3 23.6 27.8	370 335 305	2950	58 68 68	95.6 114 122.2	132	Y315M-2	3.3 4.0 4.4	Φ235	638	950
	6	55 85 100	15.3 23.6 27.8	444 402 366	2950	58 68 68	114.7 136.9 146.6	160	Y315L1-2	3.3 4.0 4.4	Φ235	708	1070
	7	55 85 100	15.3 23.6 27.8	518 469 427	2950	58 68 68	133.8 159.6 171	185	Y315L2-2	3.3 4.0 4.4	Φ235	778	915
	8	55 85 100	15.3 23.6 27.8	592 536 488	2950	58 68 68	152.9 182.4 195.4	220	Y355M1-2	3.3 4.0 4.4	Φ235	848	1350
	9	55 85 100	15.3 23.6 27.8	666 603 549	2950	58 68 68	172 205.2 219.9	250	Y355M2-2	3.3 4.0 4.4	Φ235	918	1450
DF 100-30×(2~10)	2	70 100 120	19.44 27.78 33.33	69 60 51	2950	70.5 75 70	18.67 21.80 23.92	30	Y200L1-2	4.1 4.5 5.0	Φ200	420	240
	3	70 100 120	19.44 27.78 33.33	104 90 77	2950	70.5 75 70	28.00 32.70 35.88	45	Y225M-2	4.1 4.5 5.0	Φ200	485	325
	4	70 100 120	19.44 27.78 33.33	138 120 102	2950	70.5 75 70	37.34 43.60 47.84	55	Y250M-2	4.1 4.5 5.0	Φ200	550	395

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight t	电机重 Moter Weight
		m³/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 100-30×(2~10)	5	70 100 120	19.44 27.78 33.33	173 150 128	2950	70.5 75 70	46.67 54.50 59.79	75	Y280S-2	4.1 4.5 5.0	Φ200	615	500
	6	70 100 120	19.44 27.78 33.33	207 180 154	2950	70.5 75 70	56.01 65.40 71.75	90	Y280M-2	4.1 4.5 5.0	Φ200	680	550
	7	70 100 120	19.44 27.78 33.33	242 210 179	2950	70.5 75 70	65.34 76.30 83.71	110	Y315S-2	4.1 4.5 5.0	Φ200	745	875
	8	70 100 120	19.44 27.78 33.33	276 240 205	2950	70.5 75 70	74.68 87.20 95.67	110	Y315S-2	4.1 4.5 5.0	Φ200	810	875
	9	70 100 120	19.44 27.78 33.33	311 270 230	2950	70.5 75 70	84.01 98.10 107.63	132	Y315M-2	4.1 4.5 5.0	Φ200	875	950
	10	70 100 120	19.44 27.78 33.33	345 300 256	2950	70.5 75 70	93.35 109.00 119.59	132	Y315M-2	4.1 4.5 5.0	Φ200	940	950
DF 120-50×(2~12)	2	96 120 140	26.7 33.3 38.9	110 100 84.6	2950	73 73.3 67.5	39.44 44.54 48.8	55	Y250M-2	3.2 5.1 6.7	Φ213	312	395
	3	96 120 140	26.7 33.3 38.9	165 150 126.9	2950	73 73.3 67.5	50.09 66.88 71.68	90	Y280M-2	3.2 5.1 6.7	Φ213	377	550
	4	96 120 140	26.7 33.3 38.9	220 200 169.2	2950	73 73.3 67.5	78.79 89.17 95.57	110	Y315S-2	3.2 5.1 6.7	Φ213	442	875
	5	96 120 140	26.7 33.3 38.9	275 250 211.5	2950	73 73.3 67.5	98.49 111.46 119.46	132	Y315M-2	3.2 5.1 6.7	Φ213	507	950
	6	96 120 140	26.7 33.3 38.9	330 300 253.8	2950	73 73.3 67.5	118.18 133.75 143.36	160	Y315L1-2	3.2 5.1 6.7	Φ213	572	1070
	7	96 120 140	26.7 33.3 38.9	385 350 296.1	2950	73 73.3 67.5	137.88 156.04 167.25	200	Y315L2-2	3.2 5.1 6.7	Φ213	637	1190

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight t	电机重 Moter Weight
		m³/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 120-50×(2~12)	8	96 120 140	26.7 33.3 38.9	440 400 338.4	2950	73 73.3 67.5	157.58 178.33 191.14	220	Y355M1-2	3.2 5.1 6.7	Φ213	702	1350
	9	96 120 140	26.7 33.3 38.9	495 450 380.7	2950	73 73.3 67.5	177.28 200.63 215.03	250	Y355M2-2	3.2 5.1 6.7	Φ213	767	1450
	10	96 120 140	26.7 33.3 38.9	550 500 423	2950	73 73.3 67.5	196.97 222.92 238.93	280	Y355L1-2	3.2 5.1 6.7	Φ213	832	1550
	11	96 120 140	26.7 33.3 38.9	605 550 465.3	2950	73 73.3 67.5	216.67 245.21 262.82	280	Y355L1-2	3.2 5.1 6.7	Φ213	897	1550
	12	96 120 140	26.7 33.3 38.9	660 600 507.6	2950	73 73.3 67.5	236.37 267.50 287.71	315	Y355L2-2	3.2 5.1 6.7	Φ213	962	1650
DF 150-50×(2~10)	2	100 150 200	27.78 41.67 55.56	110 100 86	1480	55 69 72	54.30 59.24 65.10	75	Y280S-4	3.7 3.9 4.2	Φ388	1250	500
	3	100 150 200	27.78 41.67 55.56	164 150 129	1480	55 69 72	81.45 88.85 97.65	110	Y315S-4	3.7 3.9 4.2	Φ388	1370	875
	4	100 150 200	27.78 41.67 55.56	219 200 172	1480	55 69 72	108.60 118.48 130.19	160	Y315L1-4	3.7 3.9 4.2	Φ388	1490	1135
	5	100 150 200	27.78 41.67 55.56	274 250 215	1480	55 69 72	135.75 148.10 162.74	185	Y315L2-4	3.7 3.9 4.2	Φ388	1610	1200
	6	100 150 200	27.78 41.67 55.56	329 300 258	1480	55 69 72	162.91 177.72 195.29	200	Y315L2-4	3.7 3.9 4.2	Φ388	1730	1255
	7	100 150 200	27.78 41.67 55.56	384 350 301	1480	55 69 72	190.06 207.34 227.84	250	Y355M-4	3.7 3.9 4.2	Φ388	1850	1450
	8	100 150 200	27.78 41.67 55.56	438 400 344	1480	55 69 72	217.21 236.96 260.39	280	Y355L1-4	3.7 3.9 4.2	Φ388	1970	1550

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 150-50×(2~10)	9	100 150 200	27.78 41.67 55.56	493 450 387	1480	55 69 72	244.36 266.58 292.94	315	Y355L-4	3.7 3.9 4.2	Φ388	2090	1650
	10	100 150 200	27.78 41.67 55.56	548 500 430	1480	55 69 72	271.51 296.20 325.49	355	Y4001-4 (IP23/6kV)	3.7 3.9 4.2	Φ388	2210	2480
DF 155-30×(2~10) /150 DF 30×(2~10)	2	119 155 190	33 43 52.8	64 60 54	1480	69.5 75 76	29.8 33.71 36.95	45	Y225M-4	3.2 3.9 4.8	Φ305	476	325
	3	119 155 190	33 43 52.8	96 90 81	1480	69.5 75 76	44.7 50.57 55.42	75	Y280S-4	3.2 3.9 4.8	Φ305	546	500
	4	119 155 190	33 43 52.8	128 120 108	1480	69.5 75 76	59.6 67.42 73.9	90	Y280M-4	3.2 3.9 4.8	Φ305	617	550
	5	119 155 190	33 43 52.8	160 150 135	1480	69.5 75 76	74.5 84.28 92.37	110	Y315S-4	3.2 3.9 4.8	Φ305	687	875
	6	119 155 190	33 43 52.8	192 180 162	1480	69.5 75 76	89.4 101.1 110.8	132	Y315M-4	3.2 3.9 4.8	Φ305	757	950
	7	119 155 190	33 43 52.8	224 210 189	1480	69.5 75 76	104.3 118.0 129.3	160	Y315L1-4	3.2 3.9 4.8	Φ305	827	1070
	8	119 155 190	33 43 52.8	256 240 216	1480	69.5 75 76	119.2 134.8 147.8	200	Y315L2-4	3.2 3.9 4.8	Φ305	897	1190
	9	119 155 190	33 43 52.8	288 270 243	1480	69.5 75 76	134.1 151.7 166.3	200	Y315L2-4	3.2 3.9 4.8	Φ305	968	1190
	10	119 155 190	33 43 52.8	320 200 270	1480	69.5 75 76	149 168.6 184.7	220	Y355M1-4	3.2 3.9 4.8	Φ305	1038	1350
DF 155-67×(2~9)	2	100 155 185	27.8 43.1 51.4	152 134 118	2950	64 74 72	64.7 76.5 82.6	90	Y280M-2	3.2 5.0 6.6	Φ235	432	550

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 155-67×(2~9)	3	100 155 185	27.8 43.1 51.4	228 201 177	2950	64 74 72	97.0 114.7 123.9	132	Y315M-2	3.2 5.0 6.6	Φ235	502	950
	4	100 155 185	27.8 43.1 51.4	304 268 236	2950	64 74 72	129.4 152.9 165.1	185	Y315L2-2	3.2 5.0 6.6	Φ235	572	915
	5	100 155 185	27.8 43.1 51.4	380 335 295	2950	64 74 72	161.7 191.2 206.4	220	Y355M1-2	3.2 5.0 6.6	Φ235	642	1350
	6	100 155 185	27.8 43.1 51.4	456 402 354	2950	64 74 72	194 229.5 247.7	280	Y355L1-2	3.2 5.0 6.6	Φ235	712	1550
	7	100 155 185	27.8 43.1 51.4	532 469 413	2950	64 74 72	226.4 267.7 288.9	315	Y355L2-2	3.2 5.0 6.6	Φ235	782	1650
	8	100 155 185	27.8 43.1 51.4	608 536 472	2950	64 74 72	258.8 305.9 330.2	355	Y3555-2 (IP23/6kV)	3.2 5.0 6.6	Φ235	852	1545
	9	100 155 185	27.8 43.1 51.4	684 603 531	2950	64 74 72	291.1 344.2 371.5	450	Y4001-2 (IP23/6kV)	3.2 5.0 6.6	Φ235	922	2750
DF 200-50×(2-10)	2	120 200 240	33.3 55.6 66.7	108 100 90	1480	68.5 74.4 72.6	51.52 73.21 81.02	110	Y315LS-4	2.6 3.1 3.9	Φ378	1250	875
	3	120 200 240	33.3 55.6 66.7	162 150 135	1480	68.5 74.4 72.6	77.29 109.81 121.54	132	Y315M-4	2.6 3.1 3.9	Φ378	1370	950
	4	120 200 240	33.3 55.6 66.7	216 200 180	1480	68.5 74.4 72.6	103.05 146.41 162.05	200	Y315L2-4	2.6 3.1 3.9	Φ378	1490	1190
	5	120 200 240	33.3 55.6 66.7	270 250 225	1480	68.5 74.4 72.6	128.81 183.02 202.56	220	Y355M1-4	2.6 3.1 3.9	Φ378	1610	1350
	6	120 200 240	33.3 55.6 66.7	324 300 270	1480	68.5 74.4 72.6	154.57 219.62 243.07	280	Y355L1-4	2.6 3.1 3.9	Φ378	1730	1550

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 200-50×(2-10)	7	120 200 240	33.3 55.6 66.7	378 350 315	1480	68.5 74.4 72.6	180.33 256.23 283.58	315	Y355L2-4	2.6 3.1 3.9	Φ378	1850	1650
	8	120 200 240	33.3 55.6 66.7	432 400 360	1480	68.5 74.4 72.6	206.10 292.83 324.10	355	Y4001-4 (IP23/6kV)	2.6 3.1 3.9	Φ378	1970	2480
	9	120 200 240	33.3 55.6 66.7	486 450 405	1480	68.5 74.4 72.6	231.86 329.43 364.61	400	Y4002-4 IP23/6kV	2.6 3.1 3.9	Φ378	2090	2560
	10	120 200 240	33.3 55.6 66.7	540 500 450	1480	68.5 74.4 72.6	257.62 366.04 405.12	450	Y4003-4 (IP23/6kV)	2.6 3.1 3.9	Φ378	2210	2640
DF 250-50×(2~10)	2	160 250 300	44.44 69.44 83.33	111 100 91	1480	65 77 75.5	74.59 88.47 98.75	110	Y315S-4	2.8 3.6 4.4	Φ398	700	912
	3	160 250 300	44.44 69.44 83.33	167 150 137	1480	65 77 75.5	111.88 132.71 148.12	160	Y315L1-4	2.8 3.6 4.4	Φ398	820	1080
	4	160 250 300	44.44 69.44 83.33	222 200 182	1480	65 77 75.5	149.18 176.95 197.50	220	Y355M1-4	2.8 3.6 4.4	Φ398	940	1350
	5	160 250 300	44.44 69.44 83.33	278 250 228	1480	65 77 75.5	186.47 221.19 246.87	280	Y355L-4	2.8 3.6 4.4	Φ398	1060	1550
	6	160 250 300	44.44 69.44 83.33	334 300 274	1480	65 77 75.5	223.77 265.42 296.25	315	Y355L2-4	2.8 3.6 4.4	Φ398	1180	1650
	7	160 250 300	44.44 69.44 83.33	389 350 319	1480	65 77 75.5	261.06 309.66 345.62	400	Y4002-4 (IP23/6kV)	2.8 3.6 4.4	Φ398	1300	2560
	8	160 250 300	44.44 69.44 83.33	445 400 365	1480	65 77 75.5	298.36 353.90 395.00	150	Y4003-4 (IP23/6kV)	2.8 3.6 4.4	Φ398	1420	2640
	9	160 250 300	44.44 69.44 83.33	500 450 410	1480	65 77 75.5	335.65 398.13 444.37	500	Y4004-4 (IP23/6kV)	2.8 3.6 4.4	Φ398	1540	2730

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m^3/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 250-50×(2~10)	10	160 250 300	44.44 69.44 83.33	556 500 456	1480	65 77 75.5	372.95 442.37 493.75	500	Y4005-4 (IP23/6kV)	2.8 3.6 4.4	Φ398	1660	2880
DF 280-43×(2~9) /200 DF 43×(2~9)	2	185 280 335	51.4 77.8 93.1	94 86 76	1480	69 77 75	68.6 85.2 92.5	110	Y315S-4	3.0 4.7 6.0	Φ360	667	875
	3	185 280 335	51.4 77.8 93.1	141 129 114	1480	69 77 75	102.9 127.7 138.8	160	Y315L1-4	3.0 4.7 6.0	Φ360	787	1135
	4	185 280 335	51.4 77.8 93.1	188 172 152	1480	69 77 75	137.7 170.3 185.0	200	Y315L2-4	3.0 4.7 6.0	Φ360	908	1255
	5	185 280 335	51.4 77.8 93.1	235 215 190	1480	69 77 75	171.6 212.9 231.3	250	Y355M2-4	3.0 4.7 6.0	Φ360	1028	1450
	6	185 280 335	51.4 77.8 93.1	282 258 228	1480	69 77 75	205.9 255.5 277.5	315	Y355L2-4	3.0 4.7 6.0	Φ360	1149	1650
	7	185 280 335	51.4 77.8 93.1	329 301 266	1480	69 77 75	240.2 298.1 323.8	355	Y4001-4 (IP23/6kV)	3.0 4.7 6.0	Φ360	1271	2480
	8	185 280 335	51.4 77.8 93.1	376 344 304	1480	69 77 75	274.5 340.7 370.0	450	Y4003-4 (IP23/6kV)	3.0 4.7 6.0	Φ360	1391	2640
	9	185 280 335	51.4 77.8 93.1	423 387 342	1480	69 77 75	308.8 383.3 416.3	450	Y4003-4 (IP23/6kV)	3.0 4.7 6.0	Φ360	1512	2640
DF 280-65×(2~12)	2	185 280 335	51.4 77.8 93.1	136 130 124	1480	67 73 71	102.2 135.8 159.3	185	Y315L2-4	2.8 3.7 5.0	Φ430	824	915
	3	185 280 335	51.4 77.8 93.1	204 195 186	1480	67 73 71	153.4 203.7 238.9	280	Y3555-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	1006	1890
	4	185 280 335	51.4 77.8 93.1	272 260 248	1480	67 73 71	204.5 271.6 318.6	355	Y4001-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	1188	2480

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 280-65×(2~12)	5	185 280 335	51.4 77.8 93.1	340 325 310	1480	67 73 71	255.7 339.5 398.3	450	Y4003-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	1370	2640
	6	185 280 335	51.4 77.8 93.1	408 390 372	1480	67 73 71	306.6 407.4 477.8	500	Y4004-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	1552	2730
	7	185 280 335	51.4 77.8 93.1	476 455 434	1480	67 73 71	357.9 475.3 557.7	630	Y4501-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	1734	3550
	8	185 280 335	51.4 77.8 93.1	544 520 496	1480	67 73 71	409.1 543.2 637.3	710	Y4502-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	1916	3670
	9	185 280 335	51.4 77.8 93.1	612 585 558	1480	67 73 71	460.2 611.1 716.9	800	Y4503-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	2098	3930
	10	185 280 335	51.4 77.8 93.1	680 650 620	1480	67 73 71	511.3 678.9 796.7	900	Y4504-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	2280	3960
	11	185 280 335	51.4 77.8 93.1	748 715 682	1480	67 73 71	562.5 746.9 876.3	900	Y4504-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	2460	3960
	12	185 280 335	51.4 77.8 93.1	816 780 744	1480	67 73 71	613.6 814.8 955.9	1000	Y5001-4 (IP23/6kV)	2.8 3.7 5.0	Φ430	2645	4660
DF 360-40×(2~10)	2	300 360 440	83.3 100 122.2	84 80 71	1480	77 80 77	89.1 98.1 110.5	132	Y315M-4	4.65 4.7 5.4	Φ360	676	1025
	3	300 360 440	83.3 100 122.2	126 120 106.5	1480	77 80 77	133.7 147.2 165.8	185	Y315L2-4	4.65 4.7 5.4	Φ360	807	915
	4	300 360 440	83.3 100 122.2	168 160 142	1480	77 80 77	178.2 196.2 221.1	250	Y355M2-4	4.65 4.7 5.4	Φ360	938	1450
	5	300 360 440	83.3 100 122.2	210 200 177.5	1480	77 80 77	222.8 245.3 276.3	315	Y355L2-4	4.65 4.7 5.4	Φ360	1069	1650

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 360-40×(2~10)	6	300 360 440	83.3 100 122.2	252 240 213	1480	77 80 77	257.4 294.1 331.5	400	Y4002-4 (IP23/6kV)	4.65 4.7 5.4	Φ360	1200	2560
	7	300 360 440	83.3 100 122.2	294 280 248.5	1480	77 80 77	311.9 343.1 386.7	450	Y4003-4 (IP23/6kV)	4.65 4.7 5.4	Φ360	1331	2640
	8	300 360 440	83.3 100 122.2	336 320 284	1480	77 80 77	356.5 392.2 441.9	500	Y4004-4 (IP23/6kV)	4.65 4.7 5.4	Φ360	1462	2730
	9	300 360 440	83.3 100 122.2	378 360 319.5	1480	77 80 77	401.1 441.2 497.2	560	Y4005-4 (IP23/6kV)	4.65 4.7 5.4	Φ360	1593	2880
	10	300 360 440	83.3 100 122.2	420 400 355	1480	77 80 77	445.6 490.2 552.4	630	Y4501-4 (IP23/6kV)	4.65 4.7 5.4	Φ360	1724	3550
DF 360-60×(2~12)	2	300 360 410	83.33 100.00 113.89	128 120 110	1480	74 75 74.5	141.41 156.96 164.96	185	Y315L2-4	3.1 4.0 5.3	Φ430	824	915
	3	300 360 410	83.33 100.00 113.89	192 180 165	1480	74 75 74.5	212.11 235.44 247.44	280	Y355L1-4	3.1 4.0 5.3	Φ430	1006	1890
	4	300 360 410	83.33 100.00 113.89	256 240 220	1480	74 75 74.5	282.81 313.92 329.93	400	Y4002-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	1188	2560
	5	300 360 410	83.33 100.00 113.89	320 300 275	1480	74 75 74.5	353.51 392.40 412.41	500	Y4004-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	1370	2730
	6	300 360 410	83.33 100.00 113.89	384 360 330	1480	74 75 74.5	424.22 470.88 494.89	560	Y4005-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	1552	2880
	7	300 360 410	83.33 100.00 113.89	448 420 385	1480	74 75 74.5	494.92 549.36 577.37	710	Y4502-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	1734	3670
	8	300 360 410	83.33 100.00 113.89	512 480 440	1480	74 75 74.5	565.62 627.84 659.85	800	Y4503-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	1916	3930

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m³/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 360-60×(2~12)	9	300 360 410	83.33 100.00 113.89	576 540 495	1480	74 75 74.5	636.32 706.32 742.33	900	Y4504-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	2098	3960
	10	300 360 410	83.33 100.00 113.89	640 600 550	1480	74 75 74.5	707.03 784.80 824.82	1000	Y5001-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	2280	4660
	11	300 360 410	83.33 100.00 113.89	704 660 605	1480	74 75 74.5	777.83 863.28 907.30	1000	Y5001-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	2460	4660
	12	300 360 410	83.33 100.00 113.89	768 720 660	1480	74 75 74.5	848.43 941.76 989.78	1120	Y5002-4 (IP23/6kV)	3.1 4.0 5.3	Φ430	2645	4830
DF 360-95×(2~10)	2	280 360 410	77.78 100.00 113.89	187 176 167	1480	70 73 71	203.29 236.52 263.10	280	Y355L-4	2.6 2.8 3.8	Φ500	970	1550
	3	280 360 410	77.78 100.00 113.89	280 264 251	1480	70 73 71	304.93 354.77 394.66	450	Y4003-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	1155	2640
	4	280 360 410	77.78 100.00 113.89	373 352 334	1480	70 73 71	406.57 473.03 526.21	560	Y4005-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	1335	2880
	5	280 360 410	77.78 100.00 113.89	466 440 418	1480	70 73 71	508.21 591.29 657.76	630	Y4501-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	1515	3550
	6	280 360 410	77.78 100.00 113.89	560 528 502	1480	70 73 71	609.86 709.55 789.31	800	Y4503-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	1695	3930
	7	280 360 410	77.78 100.00 113.89	653 616 585	1480	70 73 71	711.50 827.08 920.87	1000	Y5001-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	1875	4660
	8	280 360 410	77.78 100.00 113.89	746 704 669	1480	70 73 71	813.14 946.06 1052.42	1120	Y5002-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	2055	4830
	9	280 360 410	77.78 100.00 113.89	839 792 752	1480	70 73 71	914.78 1064.32 7783.97	1250	Y5003-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	2235	4930

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H	转速 Speed n	效率 Eff. η	轴功率 Shaft power	配带电动机 Motor		必需汽蚀余量 NPSHr	叶轮名义直径 Impeller Dia	泵重 Weight	电机重 Moter Weight
		m³/h	L/s	m	r/min	%	kW	功率 Power kW	型号 Type	m	mm	kg	kg
DF 360-95×(2~10)	10	280 360 410	77.78 100.00 113.89	933 880 836	1480	70 73 71	1016.43 1182.58 1315.52	1400	Y5003-4 (IP23/6kV)	2.6 2.8 3.8	Φ500	2415	4930
DF 450-60×(2~10)	2	335 450 500	93.1 125 138.9	130 120 113	1480	72 79 78	164.7 186.1 197.3	250	Y3554-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	1500	1820
	3	335 450 500	93.1 125 138.9	195 180 171	1480	72 79 78	247.1 279.2 296.0	355	Y4001-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	1750	2480
	4	335 450 500	93.1 125 138.9	260 240 228	1480	72 79 78	329.5 372.2 394.7	450	Y4003-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	2000	2730
	5	335 450 500	93.1 125 138.9	325 300 285	1480	72 79 78	411.8 465.4 493.4	630	Y4501-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	2250	3550
	6	335 450 500	93.1 125 138.9	390 360 342	1480	72 79 78	494.2 558.3 592.0	710	Y4502-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	2500	3670
	7	335 450 500	93.1 125 138.9	455 420 399	1480	72 79 78	576.5 651.5 690.7	800	Y4503-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	2750	3930
	8	335 450 500	93.1 125 138.9	520 480 456	1480	72 79 78	658.9 744.4 789.4	900	Y4504-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	3000	3960
	9	335 450 500	93.1 125 138.9	585 540 513	1480	72 79 78	741.2 837.5 888.0	1000	Y5001-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	3250	4660
	10	335 450 500	93.1 125 138.9	650 600 570	1480	72 79 78	823.6 930.8 995.1	1120	Y5002-4 (IP23/6kV)	4.1 5.2 6.3	Φ430	3500	4830
DF 500-57×(2~10)	2	450 500 550	125 138.9 152.7	120 114 108	1480	80 81 79	184 192 205	250	Y3554-4 (IP23/6kV)	4.4 5 5.8	Φ430	1500	1820
	3	450 500 550	125 138.9 152.7	180 171 162	1480	80 81 79	276 287.5 307.5	355	Y4001-4 (IP23/6kV)	4.4 5 5.8	Φ430	1750	2480

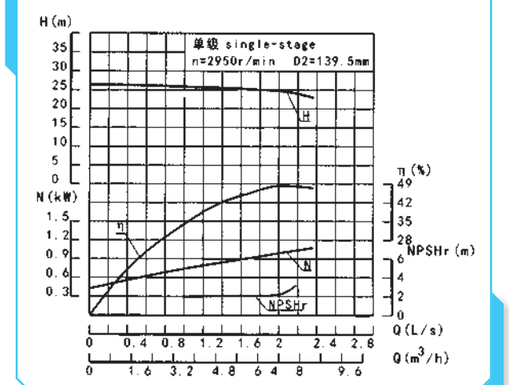
型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 500-57×(2~10)	4	450 500 550	125 138.9 152.7	240 228 216	1480	80 81 79	368 383.5 410	450	Y4003-4 (IP23/6kV)	4.4 5 5.8	Φ430	2000	2730
	5	450 500 550	125 138.9 152.7	300 285 270	1480	80 81 79	460 479.5 512	630	Y4501-4 (IP23/6kV)	4.4 5 5.8	Φ430	2250	3550
	6	450 500 550	125 138.9 152.7	360 342 324	1480	80 81 79	551.5 575 614.5	710	Y4502-4 (IP23/6kV)	4.4 5 5.8	Φ430	2500	3670
	7	450 500 550	125 138.9 152.7	420 399 378	1480	80 81 79	643.5 671 716.7	800	Y4503-4 (IP23/6kV)	4.4 5 5.8	Φ430	2750	3930
	8	450 500 550	125 138.9 152.7	480 456 432	1480	80 81 79	735.5 767 819	1000	Y5001-4 (IP23/6kV)	4.4 5 5.8	Φ430	3000	4660
	9	450 500 550	125 138.9 152.7	540 513 486	1480	80 81 79	827.5 862.5 921.5	1120	Y5002-4 (IP23/6kV)	4.4 5 5.8	Φ430	3250	4830
	10	450 500 550	125 138.9 152.7	600 570 540	1480	80 81 79	919.5 958.5 1024	1250	Y5003-4 (IP23/6kV)	4.4 5 5.8	Φ430	3500	4930
DF 500-85×(2~10)	2	375 500 550	104.17 138.98 152.78	194 170 150	1480	75 76 72	264.33 304.77 312.24	355	Y4001-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	1950	2480
	3	375 500 550	104.17 138.98 152.78	291 255 225	1480	75 76 72	396.49 457.15 468.36	560	Y4005-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	2150	2880
	4	375 500 550	104.17 138.98 152.78	399 340 300	1480	75 76 72	528.65 609.54 624.48	710	Y4502-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	2350	3670
	5	375 500 550	104.17 138.98 152.78	485 425 375	1480	75 76 72	660.81 761.92 780.60	900	Y4504-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	2550	3960
	6	375 500 550	104.17 138.98 152.78	582 510 450	1480	75 76 72	792.98 914.31 936.72	1120	Y5002-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	2750	4830

型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 500-85×(2~10)	7	375 500 550	104.17 138.98 152.78	679 595 525	1480	75 76 72	925.14 1066.69 1092.84	1250	Y5003-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	2950	4930
	8	375 500 550	104.17 138.98 152.78	776 680 600	1480	75 76 72	1057.30 1219.08 1248.96	1400	Y5003-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	3150	4930
	9	375 500 550	104.17 138.98 152.78	873 765 675	1480	75 76 72	1189.46 1371.46 1405.08	1600	Y5601-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	3350	5900
	10	375 500 550	104.17 138.98 152.78	970 850 750	1480	75 76 72	1321.63 1523.85 1561.20	1800	Y5602-4 (IP23/6kV)	3.5 5.0 5.8	Φ530	3550	7210
DF 580-60×(2~10)	2	450 580 638	125 161.1 177.2	130 120 110	1480	79 82 80	202 231 239	280	Y3555-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	1750	1890
	3	450 580 638	125 161.1 177.2	195 180 165	1480	79 82 80	302 346 359	450	Y4003-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	1950	2640
	4	450 580 638	125 161.1 177.2	260 240 220	1480	79 82 80	403 462 479	560	Y4005-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	2260	2880
	5	450 580 638	125 161.1 177.2	325 300 275	1480	79 82 80	504 578 599	710	Y4502-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	2570	3670
	6	450 580 638	125 161.1 177.2	390 360 330	1480	79 82 80	605 694 718	800	Y4503-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	2880	3930
	7	450 580 638	125 161.1 177.2	455 420 385	1480	79 82 80	706 809 838	1000	Y4504-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	3190	3960
	8	450 580 638	125 161.1 177.2	520 480 440	1480	79 82 80	806 924 958	1120	Y5002-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	3500	4830
	9	450 580 638	125 161.1 177.2	585 540 495	1480	79 82 80	907 1040 1077	1250	Y5003-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	3810	4930

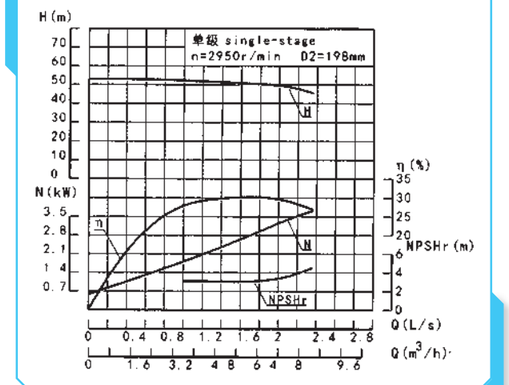
型号 Type / 参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽蚀余量 NPSHr m	叶轮名义直径 Impeller Dia mm	泵重 Weight kg	电机重 Moter Weight kg
		m^3/h	L/s					功率 Power kW	型号 Type				
DF 580-60×(2~10)	10	450 580 638	125 161.1 177.2	650 600 550	1480	79 82 80	1008 1155 1197	1400	Y5003-4 (IP23/6kV)	3.16 4.84 5.16	Φ455	4120	4930
DF 600-60×(2~10)	2	450 600 705	125 166.6 195.8	130 120 108	1480	79 82 79	201.7 239.1 262.5	280	Y3555-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	1750	1890
	3	450 600 705	125 166.6 195.8	195 180 162	1480	79 82 79	302.5 358.7 393.7	450	Y4003-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	1950	2640
	4	450 600 705	125 166.6 195.8	260 240 216	1480	79 82 79	403.3 478.2 524.9	560	Y4005-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	2260	2880
	5	450 600 705	125 166.6 195.8	325 300 270	1480	79 82 79	504.2 597.8 656.2	710	Y4502-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	2570	3670
	6	450 600 705	125 166.6 195.8	390 360 324	1480	79 82 79	605.0 717.8 787.4	900	Y4504-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	2880	3960
	7	450 600 705	125 166.6 195.8	455 420 378	1480	79 82 79	705.8 836.9 918.7	1000	Y5001-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	3190	4660
	8	450 600 705	125 166.6 195.8	520 480 432	1480	79 82 79	806.7 957.0 1049.9	1120	Y5002-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	3500	4830
	9	450 600 705	125 166.6 195.8	585 540 486	1480	79 82 79	907.5 1076.0 1181.1	1250	Y5003-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	3810	4930
	10	450 600 705	125 166.6 195.8	650 600 540	1480	79 82 79	1008.3 1195.6 1312.4	1400	Y5004-4 (IP23/6kV)	3.2 4.1 5.8	Φ455	4120	5100
DF 720-60×(2~9)	2	550 720 850	152.8 200 236.1	132 120 108	1480	76 80 78.5	260 294 318.4	355	Y4001-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	1830	2480
	3	550 720 850	152.8 200 236.1	198 180 162	1480	76 80 78.5	390 441 477.6	560	Y4005-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	2040	2880
	4	550 720 850	152.8 200 236.1	264 240 216	1480	76 80 78.5	520 588 636.8	710	Y4502-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	2350	3670
	5	550 720 850	152.8 200 236.1	330 300 270	1480	76 80 78.5	640 735 796	900	Y4504-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	2650	3930
	6	550 720 850	152.8 200 236.1	396 360 324	1480	76 80 78.5	780 882 955.2	1120	Y5002-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	2960	4660
	7	550 720 850	152.8 200 236.1	462 420 378	1480	76 80 78.5	910 1029 1114.4	1250	Y5003-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	3280	4930
	8	550 720 850	152.8 200 236.1	528 480 432	1480	76 80 78.5	1040 1176 1273.6	1400	Y5004-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	3595	5100
	9	550 720 850	152.8 200 236.1	594 540 486	1480	76 80 78.5	1170 1323 1432.8	1600	Y5601-4 (IP23/6kV)	3.5 4.5 5.5	Φ435	3900	5900

性能曲线
performance curve

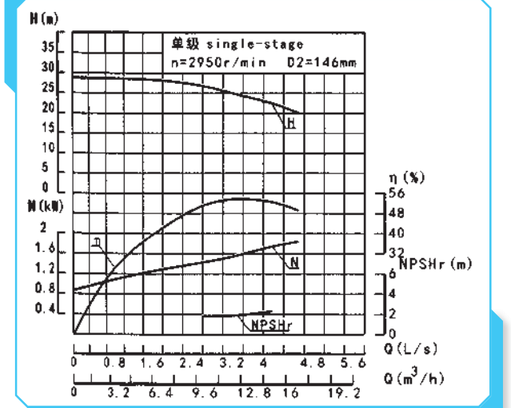
DF 6-25×(2~12)



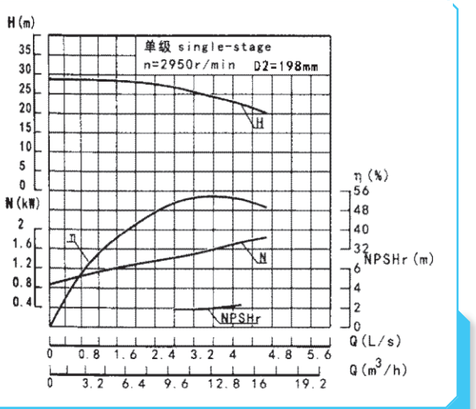
DF 6-50×(2~14)



DF 12-25×（2~12）



DF 12-50×（2~14）



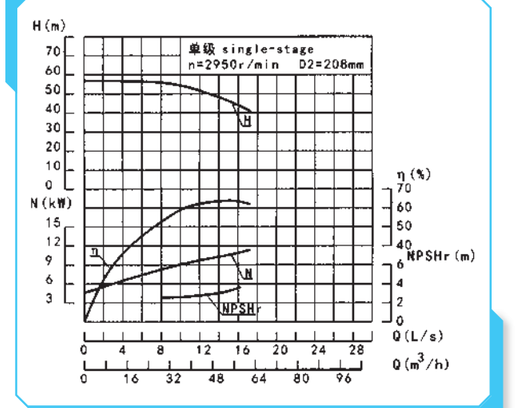
DF 15-50×(2~12)

DF 25-30×（2~10）

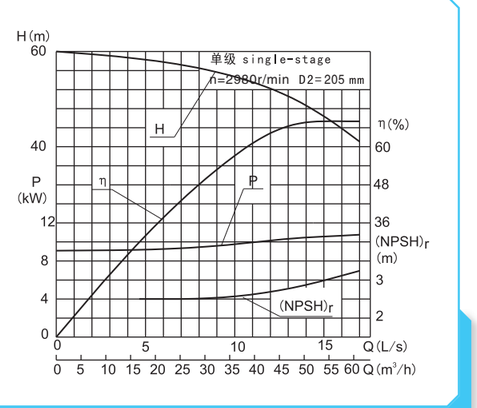
DF 25-50×（2~12）

DF 46-30×（2~10）

DF 46-50×（2~12）



DF 48-50×（2~12）



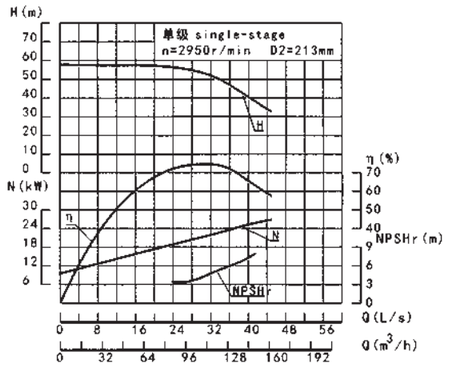
DF 60-50×(2~12)

DF 85-45×（2~9）

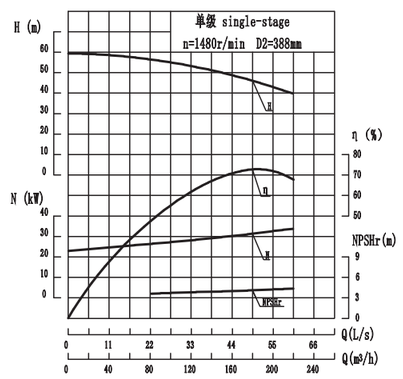
DF 85-67×（2~9）

DF 100-30×(2~10)

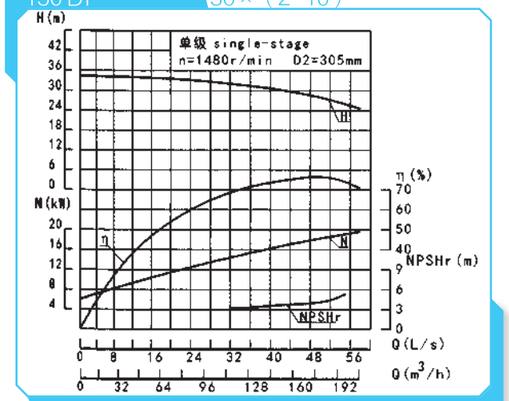
DF 120-50×（2~12）



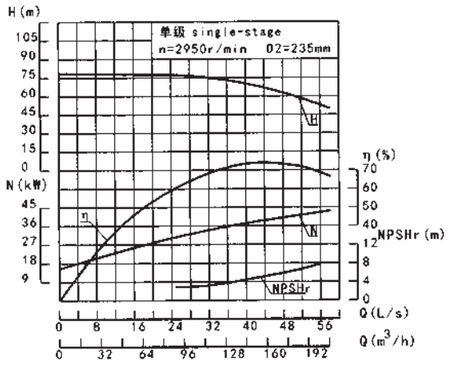
DF 150-50×(2~10)



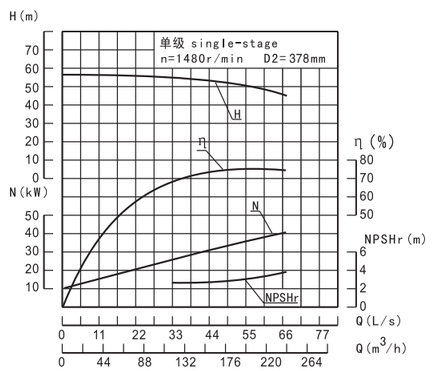
DF 155-30×（2~10）
150 DF 30×（2~10）



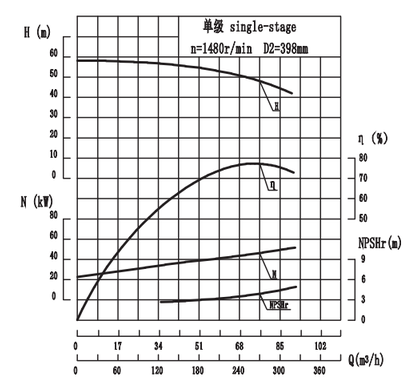
DF 155-67×（2~9）



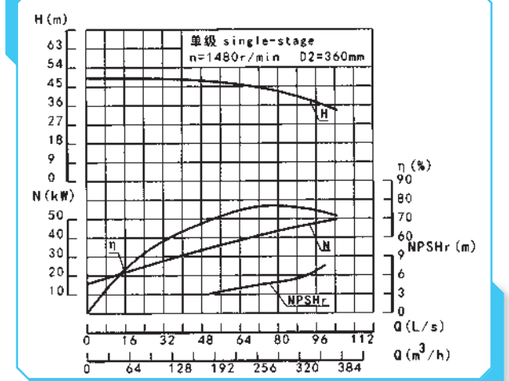
DF 200-50×（2~10）



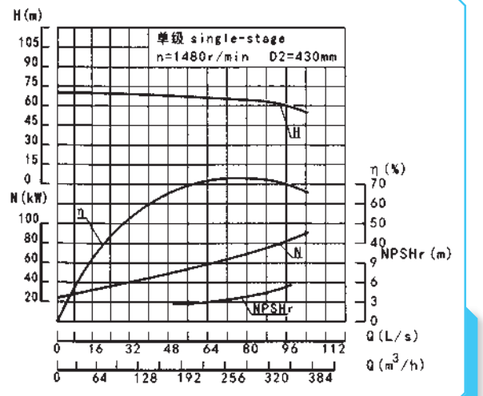
DF 250-50×(2~10)



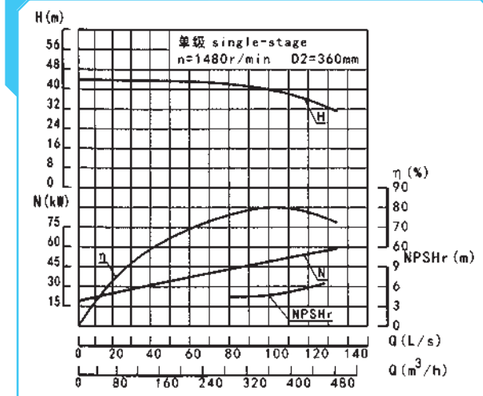
DF 200 DF 280-43×（2~9）
43×（2~9）



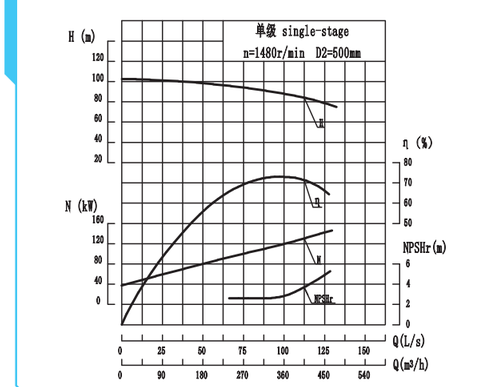
DF 280-65×（2~12）



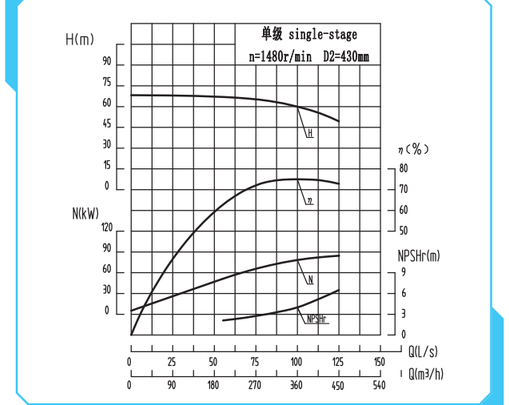
DF 360-40×（2~10）



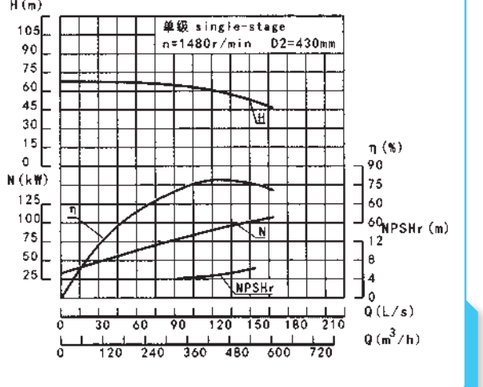
DF 360-95×(2~10)



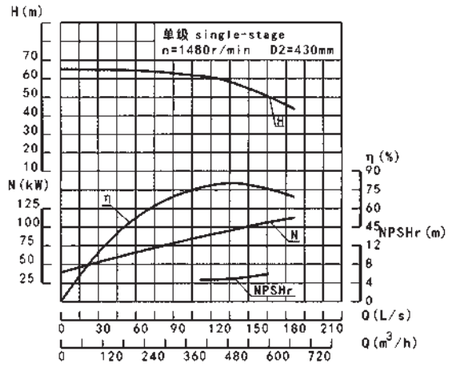
DF 360-60×(2~12)



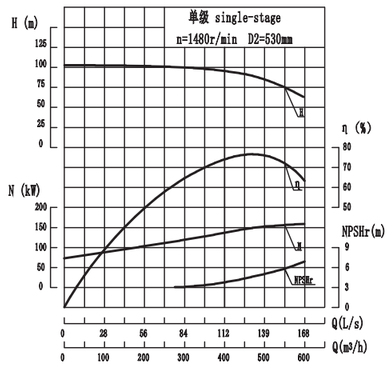
DF 450-60×（2~10）



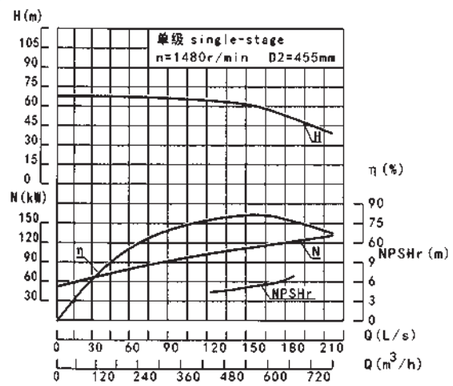
DF 500-57×(2~10)



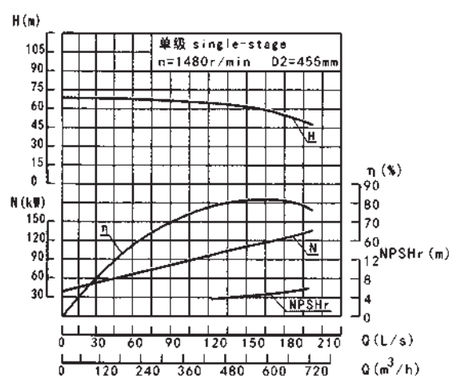
DF 500-85×(2~10)



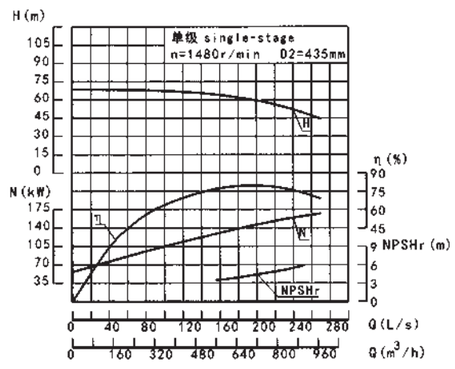
DF 580-60×(2~10)



DF 600-60×(2~10)

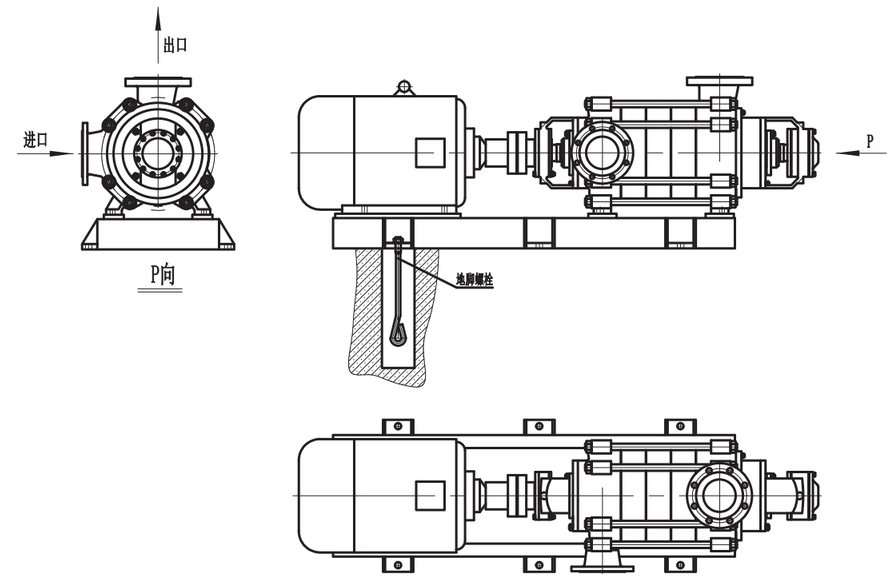


DF 720-60×(2~9)



外形安装尺寸图
Overall Installation Dimension Diagram

泵＋电机外形安装尺寸图



注：外形安装尺寸图以我司提供的合同图纸为准

Note: The installation dimensions in the appearance are subject to the contract drawings provided by our company.

设备的装配与拆卸

（一）设备拆卸时应注意的事项

1）按停车顺序停车；

2）设备壳内液体（包括冷却水）应放掉；轴承部件是稀油润滑时，应放掉润滑油；

3）拆去妨碍拆卸的附属管路，如平衡管、水封管等管路和引线；

4）拆卸应严格保护零件的制造精度不受损伤，拆卸穿杆的同时应将各中段用垫块垫起，以免各中段止口松动下沉将轴压弯。

（二）设备的拆卸顺序

1）拧下吐出侧轴向间隙调整系统的螺栓和吐出段、轴承体乙两个部件之间的联接螺栓，卸下轴承端盖、轴承体、轴承衬套等轴承部件；

2）拧下轴上圆螺母并依次卸下轴向间隙调整系统后，轴承体乙（包括抗结垢动力密封系统等在内）；

3）依次卸下轴上的O形密封圈、轴套、自平衡系统后，卸下吐出段、末级导叶等；

4）卸下末级三元流叶轮和键后，卸下中段、导叶；按此依次卸下各级三元流叶轮、中段和导叶，直到卸下首级三元流叶轮为止；

5）卸下设备联轴器后，拧下吸入段和轴承体甲的联接螺母和轴承压盖上的螺栓后，卸下吸入段侧抗结垢动力密封系统和轴承部件；

6）将轴从吸入段中抽出，拧下轴上固定螺母，依次将轴承内圈、O形密封圈、轴套等卸下；

7）采用滑动轴承的设备，其拆卸顺序基本相同，仅在拆卸轴承部件时略有不同。

（三）设备的装配

设备的装配顺序一般按拆卸顺序相反方向进行。装配质量好坏直接影响设备能否正常运行，并影响设备的使用寿命和性能参数。装配时应注意以下几点：

Assembly and disassembly

(1) Precautions during equipment disassembly

1) Shut down the equipment in the order of shutdown;
2) Drain the liquid (including cooling water) inside the equipment shell; if the bearings are lubricated with oil, drain the lubricating oil;
3) Remove auxiliary pipelines impede disassembly, such as balance pipes, water seal pipes, etc., and leads;
4) During disassembly, strictly protect the manufacturing precision of parts from damage When dismantling the through rod, the various middle sections should be supported with pads to prevent the middle section stoppers from loosening and sinking, which could bend the shaft.

(2) The sequence of equipment disassembly

1) Unscrew the bolts of the axial clearance adjustment system on the discharge side and the connecting bolts between the discharge section the bearing housing B, and remove the bearing end cover, bearing housing, bearing liner, etc.;
2) After unscrewing the round nuts on the shaft and sequentially the axial clearance adjustment system, remove the bearing housing B (including the anti-scaling dynamic seal system, etc.);
3) After sequentially removing the O-ring seals, sleeves, and self-balancing systems on the shaft, remove the discharge section, last stage guide vane, etc.;
4) After removing the last stage three- flow impeller and key, remove the middle section, guide vane; follow this sequence to remove the three-dimensional flow impellers, middle sections, and guide vanes of stage, until the first stage three-dimensional flow impeller is removed;
5) After removing the equipment coupling, unscrew the connecting nuts between the suction section and the housing A and the bolts on the bearing pressure plate, and remove the anti-scaling dynamic seal system on the suction section side and the bearing components;
6) Pull the out of the suction section, unscrew the fixed nuts on the shaft, and sequentially remove the bearings, O-ring seals, shaft sleeves, etc.;
7) equipment with sliding bearings, the disassembly sequence is basically the same, only slightly different when dismantling bearing components.

(3) Equipment assembly

The sequence of equipment assembly generally in the opposite direction of the disassembly sequence.

1）应保护好零件的加工精度和表面粗糙度，不允许有碰伤、划伤等现象，作密封用的密封胶要干净，紧固螺钉和螺栓应受力均匀；

2）三元流叶轮出口流道与导叶进口流道的对中性是依各零件的轴向尺寸来保证，流道对中性的好坏直接影响设备的性能，故设备的尺寸不能随意调整；

3）设备装配完毕后，用手转动泵转子，检查转子在泵中旋转是否灵活，轴向定位情况是否达规定要求；

The quality of assembly directly affects whether the equipment can operate normally, and also affects the service life and performance parameters of the equipment The following points should be noted during assembly:
1) The machining precision and surface roughness of the parts should be protected, and there should be no damage such as bru or scratching. The sealing sealant should be clean, and the screws and bolts should be evenly stressed;
2) The alignment of the three-dimensional flow impeller outlet with the guide vane inlet passage is guaranteed by the axial dimensions of each part. The alignment of the passage directly affects the performance of the equipment, so the dimensions of the equipment be adjusted arbitrarily.
3) After the equipment is assembled, turn the pump rotor by hand to check whether the rotor rotates flexibly in the pump and whether the axial positioning the specified requirements;

设备的安装说明

本型应用三元流自平衡系统装时除满足一般要求外，还应注意以下几点：

1）安装设备的基础平面应用水平仪找平。基础水泥凝固后，应检查底座和地脚螺栓孔是否松动；

2）驱动机、设备和底座组装后，应严格检查机组主轴和驱动机主轴的同心度，保证两轴心线吻合；

3）驱动机和设备组装时，保证设备和驱动机两联轴器端面的轴向间隙值；

4）设备的吸入管路和压出管路应有各自的支架，设备只能承受自身内力，不能承受任何外力，以免将设备压坏。

Pump Installation

In addition to meeting the general requirements, the following points should also be noted when installing the self-balancing system of this type of application with a-way stream:

1) The base plane of the installed equipment should be leveled with a level. After the foundation cement has set, it should be checked whether the and anchor bolt holes are loose;

2) After the driving machine, equipment, and base are assembled, the concentricity of the main shaft of the unit and the shaft of the driving machine should be strictly checked to ensure that the two axes are aligned;

3) When assembling the driving machine and equipment, ensure the axial clearance value the two couplings at the end face of the equipment and the driving machine;

4) The equipment's suction and discharge pipelines should have their own supports. The equipment only bear its own internal forces and should not bear any external forces to avoid crushing the equipment.

起动、运行和停车

（一）起动

1) 设备起动前应转动设备转子，检查转子是否灵活；

2) 检查电机转向是否与设备转向一致；

3) 打开设备吸入阀，关闭设备出口管路闸阀及压力表旋塞，使设备内充满液体，或用真空系统排除吸入管和设备内空气；

4) 检查设备和电机联接螺栓的松紧程度和设备周围的安全情况，使设备处于准备起动状态；

5) 起动电机，待设备运转正常后，打开压力表旋塞，慢慢开启设备出口闸阀，直到压力表指针指到所需压力为止（按出口压力表读数控制设备给定的扬程）。

（二）运行

1) 该系列设备靠设备内自平衡系统平衡轴向力，自平衡系统内有平衡液体流出，平衡液体由平衡水管接至吸入段。为保证设备正常运行，平衡水管绝对不允许堵塞；

2) 在开车和运行过程中，必须注意观察仪表读数，轴承发热、机封及设备的振动和声音等是否正常，如发现异常情况，应及时处理；

3) 轴承温升变化反映了设备的装配质量，轴承温升不得高于环境温度35℃，轴承的最高温度不得高于75℃；

4) 设备在运行期间应定期检查叶轮、密封环、导叶套、轴套、自平衡系统等零件的磨损情况，磨损过大时应及时更换。

（三）停车

1) 停车前应先关闭压力表旋塞，慢慢关闭出口闸阀，待出口阀关闭完毕后再停电机，设备停稳后再关闭设备的吸入阀；

2) 设备内水放出，如长期停用，应将设备拆卸清洗上油，包装保管。

Start-up、Operating and Halting

(1) Start

1) Before starting the equipment, the equipment rotor should be turned to check if it is flexible;
2) Check if the motor rotation direction is consistent with the equipment rotation direction;
3) Open the equipment suction valve, close the equipment discharge pipeline gate valve and pressure gauge plug, and fill the equipment with liquid, or use the vacuum system to eliminate air from the suction pipe and equipment;
4) Check the tightness of the bolts connecting the equipment and motor and the safety around the equipment, and prepare the equipment for starting;
5) Start the motor, and after the equipment operates normally, open the pressure gauge plug, slowly open the equipment discharge gate valve, until the pointer of the pressure gauge points to the required pressure (control the given head of the equipment according to the reading of the discharge pressure gauge).

(2) Operation

1)This series of equipment relies on the self-balancing system inside the equipment to balance the axial force. The self-balancing system has balanced liquid flowing out, and the balanced liquid is connected to the suction section through the balance water pipe. To ensure the normal operation of the equipment, the balance water pipe must not be blocked under any circumstances;
2) During the start-up and operation process, it is necessary to pay attention to observe the instrument readings, whether the bearing is overheated, the mechanical seal, and the vibration and sound of the equipment, etc., whether they are normal. If any abnormal situation is found, it should be handled in time;
3) The change of bearing temperature rise reflects the assembly quality of the equipment. The temperature rise of the bearing must not be higher than the ambient temperature by 35℃, and the maximum temperature of the bearing must not be higher than 75℃;
4) During the operation of the equipment, the wear of parts such as the impeller, seal ring, guide vane sleeve, shaft sleeve, and self-balancing system should be checked regularly. When the wear is too large, it should be replaced in time.

(3) Shutdown

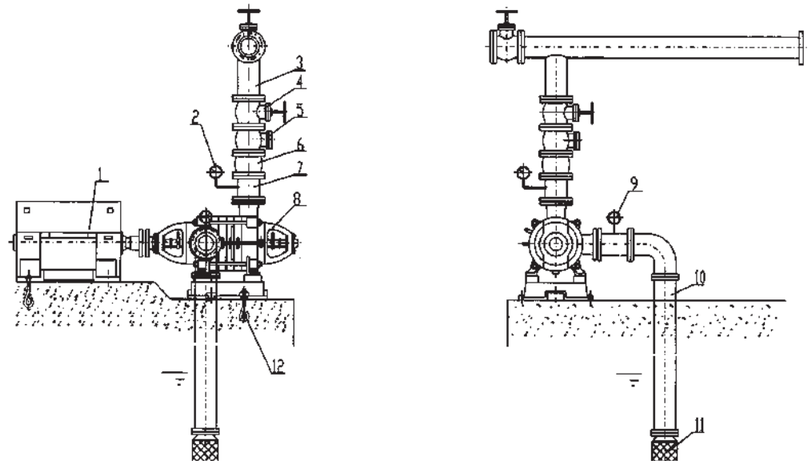
1) Before shutting down, the pressure gauge plug should be closed first, the discharge gate valve should be closed slowly, and the motor should be stopped after the discharge valve is closed. The suction valve of the equipment should be closed after the equipment has stopped steadily;
2) Drain the water from the equipment, and if it is not used for a long time, the equipment should be disassembled, cleaned, oiled, and packed for storage.

可能发生的故障及其解决方法
Possible faults and their solutions

故障现象	原因分析	排除方法
不吸水，压力表及真空表指针剧烈跳动	灌注引水不够， 管路或仪表联接处漏气。	再灌足引水； 排尽空气，检查仪表接头及封口； 拧紧或修好漏气处。
设备不吸水，真空表表示高度真空	底阀没有打开或已堵塞， 吸水管路阻力太大，吸水高度过高。	校正并清洗底阀；清洗或更换吸水管； 降低吸水高度。
压力表有压力，但仍不出水	出水管阻力太大，旋转方向不对， 叶轮流道堵塞或损坏，泵转速不足	检查或缩短出水管道； 清除叶轮内的污物或更换叶轮； 检查电机，增加泵转速。
流量低于设计要求	设备堵塞，密封环磨损过多，转速不足。	检查流道是否畅通，清洗设备管道； 更换密封环；增加设备转速。
消耗功率过大，平衡水中断， 平衡室发热，电机功率增加	设备的转子与定子摩擦，叶轮磨损； 自平衡系统磨损；设备流量增大。	检查设备轴是否歪曲； 检查磨擦部位，更换叶轮， 自平衡系统进行检修或更换， 降低流量。
设备内声音反常，泵不出水	吸水管阻力过大；闸阀开得太大， 在吸入处有空气渗入，产生气蚀； 输送的液体温度过高；转子不平衡， 轴弯曲或泵轴与电机轴不同心； 基础薄落。	检查吸入管和底阀； 关小闸阀减少流量；降低安装高度， 简化进水管路减少管路损失； 堵塞漏气处；降低水温； 紧固零件松脱处； 车削叶轮不平衡重量； 调整机组同心度；加固基础。
系统振动，轴承过热	电机与设备不同心，轴承缺油或磨损。 有汽蚀现象。	调整电机轴与设备轴的同轴度， 加油或更换轴承。降低流量。

Failure Symptoms	Cause Analysis	Troubleshiooting
No water absorption, the pointer of the pressure gauge and the vacuum gauge fluctuates violently	Insufficient supply of water to the pump, leakage of air at the junction of pipes or instruments.	Recharge the suction pipe; exhaust all the air, and check the instruments, the pipe joints, and the stuffing-boxes; tighten up or mend, any leaky parts.
The equipment does not absorb water, and the vacuum gauge indicates a high vacuum	Check valve not opened or already blocked, excessive resistance in the suction pipe, excessive suction lift.	Set right, and clean, the foot valve; clean, or change, the suction-pipe; lower the level of water drawn.
The pressure gauge has pressure, but still no water comes out	Excessive resistance in the delivery pipe, incorrect rotation direction, blockage or damage of the blade passage, insufficient pump speed.	Examine, or shorten, the delivery-pipe; clear away the dirt from the vanes, or change the vane; examine the motor, and the speed of the pump.
Flow is lower than the design requirements	Obstruction in the equipment, excessive wear of the sealing ring, insufficient speed.	Examine whether the passage is clear, and clean the pipes of the plant; change the packing-ring; increase the speed of the machinery
The consumption power is too large, the balance water is interrupted, the balance chamber is heated, and the motor power is increased	The rotor of the equipment rubs against the stator, the impeller is worn; the self-balancing system is worn; the flow of the equipment is increased.	Examine whether the shaft of the plant is bent; examine the parts that are rubbed, change the vane, set the self-balancing system to rights, or it, reduce the quantity of water.
Unusual sound in the equipment, the pump does not pump water	Excessive resistance in the suction pipe; the gate valve is opened too much, air seeps into the suction at the intake, resulting in cavitation; the temperature of the liquid being transported is too high; the rotor is unbalanced, the shaft is bent or the pump shaft is not concentric with the motor shaft; the foundation is too thin.	Examine the suction-pipe and foot valve; close the slide valve to reduce the quantity of water; lower the level of installation, and simplify the pipes that feed the water into the suction pipe, to reduce the loss of water by friction in the pipes; stop up any leaky parts; reduce temperature of the water; tighten up any parts that have become loose; turn the vane so as to get rid of any unbalanced weight; adjust the alignment of the machinery; the foundation.
System vibration, bearing overheating	The motor is not concentric with the equipment, the bearings lack oil or are worn. There is a phenomenon of cavitation.	Adjust the coaxiality of the motor shaft and the equipment shaft, add oil or replace the bearings. Reduce the flow rate.

管路安装示意图
Pipeline installation diagram



序号 No.	零件名称 Part name	序号 No.	零件名称 Part name	序号 No.	零件名称 Part name	序号 No.	零件名称 Part name
1	电机 Motor	4	闸阀 Globe valve	7	出水短管 Discharge short pipe	10	进水管路 Inlet pipeline
2	压力表 Pressure gauge	5	止回阀 Check valve	8	水泵 Pump	11	滤网 Filter screen
3	出水管路 Discharge pipeline	6	伸缩节 Expansion joint	9	真空表 Vacuum gauge	12	地脚螺栓 Anchor bolt