



Z. NANCHI SINGLE SCREW PUMP SUPPLY PROFESSIONAL, OPTIMIZED, AND COMPREHENSIVE TRANSPORTATION SOLUTIONS FOR ALL INDUSTRIES

ZHEJIANG NANCHI PUMP CO., LTD. www.zjncpump.com

## WELCOME TO Z.NANCHI

Zhejiang Nanchi Pump Co., Ltd. has been focusing on the R&D, manufacturing, sales and technical services of screw pump for more than ten years. Adopt modern and advanced CNC processing equipment and scientific management mode to create high-quality screw pump products. It can smoothly transport high viscosity, high solid content, and high abrasive media in complex systems.

The main body of Z.NANCHI single screw pump is a helical rotor and a stator. The rotor is finely processed from various metal materials, while the stator is injection molded from elastic materials that have a certain chemical strength for the conveying medium.

The pump mainly consists of a rotating "rotor" and a fixed "stator". The rotor is in the form of a circular thread, while the stator has an additional thread and a lead length twice that of the rotor. This maintains a conveying space between the stator and the additional radially rotating rotor that rotates inside it, and the conveying space continues to move from the inlet to the outlet.

By using this transportation method, the quality of the conveyed medium will not decrease from the pump suction to the discharge.

# Z.NANCHI SINGLE SCREW PUMP SUPPLYS PROFESSIONAL,OPTIMIZED,AND COMPREHENSIVE TRANSPORTATION SOLUTIONS FOR ALL INDUSTRIES

We provide consulting services for fluid transportation, which is not just about recommending pump types for us. The significance of our services is to provide professional, optimized, and comprehensive fluid transportation solutions for all industries to help customers achieve success. How can we pioneer the development of solutions? Based on our successful experience, the key is to have a deep understanding of customers and close cooperation with them, helping them optimize their systems, improve production efficiency, and also reduce operational costs.



Z.NANCHI SINGLE SCREW PUMP
----MAKE EVERYTHING POSSIBLE TO TRANSPORT

#### WIDELY APPLICATION SCOPE

Z.NANCHI single screw pump is applicable to almost all industries. It can transport almost all types of media continuously and stably, with low pulsation, no shear and speed proportional metering. It can pass through large particle solids.

Mainly used for media with the following characteristics:

- High solid content (up to 100mm maximum solid particles) or no solid content.
- Various viscosity media (1mPas~3 million mPas), especially high viscosity media that are difficult to transport.
- Various concentration media, especially high concentration media that have undergone separation and dehydration.
- Media with abrasive and corrosive properties (pH=0-14).
- Media with shear sensitivity, adhesion, and toxicity.
- Media with thixotropy and expansibility.
- Media with or without self-lubricating properties.
- Media with high temperature and low temperature (-10  $^{\circ}$ C~+150  $^{\circ}$ C).
- Media for gas, solid, and liquid mixtures.

#### WIDELY RANGE FOR CAPACITY AND PRESSURE

Capacity ranges from 1ml/h to 500m3/h. Pressure ranges from level 1 (0.6 MPa) to level 4 (2.4 MPa) in standard design, with special designs up to level 8 (4.8 MPa).

#### HIGH SELF-PRIMING CAPABILITY

Z.NANCHI single screw pump has outstanding self-priming capability, and the maximum suction height can reach 9m water column.

#### SOFT AND PRECISE MEASUREMENT

Transporting shear sensitive media usually requires pumps to have characteristics of stability, minimum shear, minimum pulsation, and accurate measurement. Z.NANCHI single screw pump has all these characteristics. In addition, during the transfer process of the medium from the pump suction to the discharge, the volume remains unchanged, so the medium in the pump chamber does not change its shape and characteristics.

#### VARIOUS INSTALLATION METHODS

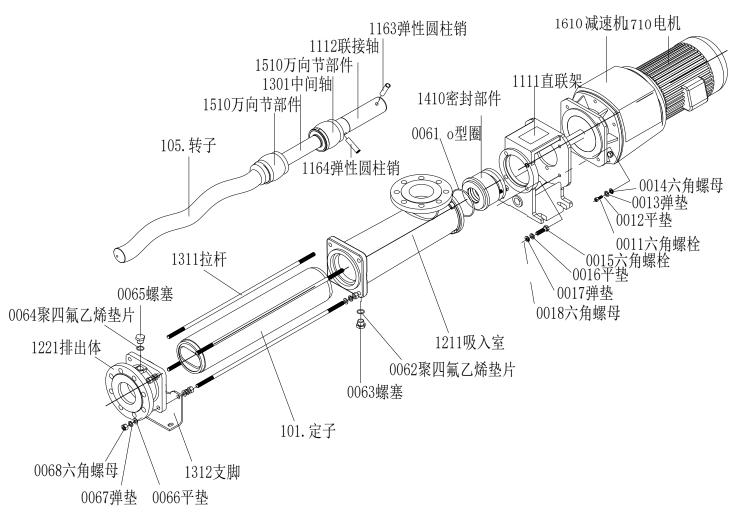
There are various installation methods for pumps, which can be installed horizontally, vertically, or in any other position. The pump can rotate and deliver in both directions. The same transmission component of the pump can be matched with various rotor/stator designs, providing you with the best usage plan.

#### **PRODUCTS**

- Z.NANCHI single screw pump
- Z.NANCHI accompanying equipment and accessories of single screw pump
- Z.NANCHI single screw pump original accessories and professional services

# Z.NANCHI SINGLE SCREW PUMP IS THE BEST CHOICE TO MEET YOUR NEEDS

# THE DESIGN OF Z.NANCHI SINGLE SCREW PUMP



Components list

0017 Spring washer	0068 Hexagon nut
0018 Hexagon nut	1211 Suction chamber
0043 Flat washer	1221 Discharge body
0061 O-ring	1301 Intermediate shaft
0062 PTFE gasket	1311 Bar
0063 Screw plug	1312 Leg
0064 PTFE gasket	1410 Seal components
0065 Screw plug	1510 Universal joint parts
0066 Flat washer	1610 Reducer
0067 Spring washer	1710 Motor
	0018 Hexagon nut 0043 Flat washer 0061 O-ring 0062 PTFE gasket 0063 Screw plug 0064 PTFE gasket 0065 Screw plug 0066 Flat washer

## THE COMBINATION DESIGN OF MULTIPLE MODULAR

## Z. NANCHI STANDARD PUMP

Z.NANCHI single screw pump is applicable to almost all industries. It can transport almost all types of media continuously and stably, with low pulsation, no shear and speed proportional metering. It can pass through large particle solids.

# NG standard pump Direct connection design

#### **Performance**

Capacity: 30L/h-500m3/h

Pressure: 2.4MPa

Application scope

NG pump is widely applicable to almost all industries. It can transport various media with different viscosity ranges and solid content in environmental protection, food, petroleum, and chemical engineering industries, with low pulsation, no shear and speed proportional metering. It can pass through large particle solids.

#### Characteristic

Direct connection design, pump and drive directly flange connected, compact design with simple structure, reduced length, reduced weight, small footprint, low usage and maintenance costs, simple and easy operation and maintenance. Multiple different rotor/stator geometries are matched to achieve optimal performance across all industries.

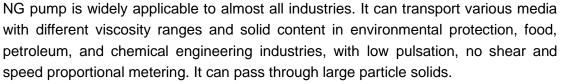
# NG standard pump Bearing frame design

#### **Performance**

Capacity: 30L/h-500m3/h

Pressure: 4.8MPa

Application scope



#### Characteristic

The bearing frame design is supported by a bearing frame, with strong load-bearing capacity and a pressure of 4.8MPa or higher. There is no limit to the use of various driving methods, such as elastic couplings, belt pulleys, and other driving connectors. Multiple different rotor/stator geometries are matched to achieve optimal performance across all industries.

## Z.NANCHI METERING PUMP

The measurement accuracy is high to every drop, with a deviation of less than 1%. Suitable for conveying various media with different viscosity ranges and solid content at low flow rates. Smooth and continuous conveying, with low pulsation, no shear, and metering proportional to speed.

# NP metering pump Direct connection design

#### **Performance**

Capacity: 0.2L/h-2000L/h

Pressure: 2.4MPa

Application scope

Suitable for conveying various media with different viscosity ranges and solid content at low flow rates. It can also be used for the dosing of various chemical agents.

#### Characteristic

High measurement accuracy, deviation<1%. Low pulsation, no shear conveying, stable flow, direct connection design, pump and drive directly flange connection, simple design, compact structure, reduced length, reduced weight, small footprint, low use and maintenance costs, simple and easy operation and maintenance.

# Z.NANCHI FOOD HYGIENIC PUMP

The design and manufacturing of food hygienic pump comply with US 3-A hygiene standards, with CIP capabilities, and is suitable for industries that require cleanliness, sterility, and hygiene such as food, beverage, pharmaceuticals, cosmetics, and biotechnology. It is used to transport various media with different viscosity ranges and solid content. The transportation is smooth, continuous, low pulsation, and shear free, and can pass through large particle solids.

# NH food hygienic pump Direct connection design

#### **Performance**

Capacity: 100m3/h Pressure: 2.4MPa Characteristic



With simple design and compact structure, the pump and drive are directly connected to the flange. The optimized dead angle free design ensures that all components in contact with the medium are treated with high surface finish, resulting in a smooth surface that prevents medium accumulation and is easy to clean. The shaft seal is sanitary grade and easy to clean, with multiple mechanical seals available for selection. The open seamless hygienic joint can be thoroughly cleaned and quickly disassembled, making maintenance particularly fast and simple. The product has high safety and meets hygiene standards. The stator rubber material uses food grade rubber that meets food grade requirements.

## Z.NANCHI MIXING PUMP

Z.NANCHI NS stirring type feeding pump series is designed and developed for slow flow material conveying conditions, optimize the design of stirring type screw propeller, this special design can ensure that the material is better fed into the cavity between the rotor and the stator. This series of pumps are specialized in conveying slow flow of high viscosity, high solid content medium. At present, this series of pumps has been developed dozens of specifications and models, almost suitable for all industry applications.

# **NS Mixing Feed Pump**

Direct connection design (Optional with bearing frame design)

#### **Performance**

Capacity: 0.1m³/h ~ 400m³/h Pressure: 4.8MPa or higher

#### **Application scope**

This series of pumps are specialized in conveying slow flow of high viscosity, high solid content medium.

#### Characteristic

The mixing feed pump is equipped with a hopper, a coupling rod, a feeding spiral blade, and a forced feeding chamber, which is almost applied in all industrial fields, providing continuous, stable, stable, and low pulsation transportation. The hopper chamber with a cutting device ensures optimal feeding of the medium into the conveying device. If the medium passes through the forced feed chamber of the cutting device, larger fruits and vegetables will be immediately chopped. The device consists of a rotating knife with three blades and a variable number of knife discs that can be adjusted based on particle size and consistency.

In addition, the pump can also attach a cutting device at the discharge flange of the pump. Through its disc circular hole and rotating blade, it allows for more particle sizes. Like other screw pump, NS mixing feed pump also has the ability to measure and transport media proportionally according to rotating speed. The pump adopts a flange connected reducer motor direct connection structure, which is compact and cost-effective. In addition, the pump is characterized by low investment, operation, and maintenance costs. However, it also adopts a bearing direct connection design with free shaft ends. This means that the pump can be used for all types of drive connections, such as servo motors, diesel engines, or hydraulic drives.



## Z.NANCHI HOPPER PUMP

It is designed and developed for harsh media transportation conditions. This series of pumps specializes in delivering low flow, even non flow, high viscosity, and high solid content media. Such as dehydrated sludge, concentrated sludge, concentrated pulp, etc.

The hopper size can be designed according to customer requirements.

# NT hopper pump

Direct connection design (Optional with bearing frame design)



#### **Performance**

Capacity: 100m3/h

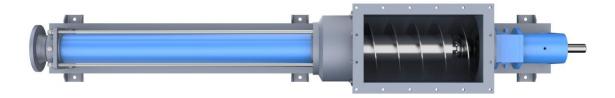
Pressure: 2.4MPa or 4.8MPa

#### **Application scope**

Used for transporting all kinds of Newtonian fluid and non-Newtonian fluid with different viscosity and solid content in sewage, food, chemical industry and other industries, as well as non-bridged semi-solid media such as concentrated sludge, dewatered sludge, concentrated pulp and so on.

#### Characteristic

The feeding and feeding spiral design with large rectangular hopper can be optimized and customized, and the hopper and feeding spiral can be optimized according to specific process requirements. Direct connection design, pump and drive directly flange connected, compact design with simple structure, reduced length, reduced weight, small footprint, low usage and maintenance costs, simple and easy operation and maintenance.



## Z.NANCHI VERTICAL PUMP

Z.NANCHI vertical pump has a small NPSH and is used to transport fluid in various containers such as barrels, containers, storage tanks, settling tanks, underground wells, pits, etc.

Used in situations with limited space and dangerous culverts. When the bottom of the barrel cannot be connected to the pipeline for discharge, or when the media cause pollution to the environment and drinking water, direct discharge is prohibited, Vertical pumps can be selected.

The insertion depth can be customized according to customer requirements.

# NV vertical pump Lifting ring mounting

The pump has a lifting ring that can be lifted by a crane. It is used to transport fluid in various containers such as barrels, containers, storage tanks, settling tanks, underground wells, pits, etc.

The insertion depth can be customized

#### **Performance**

Capacity:100m3/h Pressure:2.4MPa

#### Characteristic

Compact design, direct flange connection between pump and drive, simple structure, reduced length, reduced weight, low usage and maintenance costs, simple and easy operation and maintenance.

The length of insertion can be increased by extending the pump casing, extending the length of the suction pipe, or a combination of both.



# NV vertical pump Flange mounting

The pump is equipped with a flange mounting plate installed on the top of the container to transport media from enclosed tanks, storage tanks, and boxes.

Depending on the size, speed, and depth of the underwater working point of the pump, it can be fixed at the suction of the pump. The fixed point is self-centered and can be easily removed or re-installed.

The insertion depth can be customized.

#### **Performance**

Capacity:100m3/h Pressure:2.4MPa Characteristic

Compact design, direct flange connection between pump and drive, simple structure, reduced length, reduced weight, low usage and maintenance costs, simple and easy operation and maintenance. The insertion depth can reach 10m.



# NV vertical pump Wall mounting

This pump is often used for open collection tanks and is installed on the wall.

Depending on the size, speed, and depth of the underwater working point of the pump, it can be fixed at the suction of the pump. The fixed point is self-centered and can be easily removed or re-installed.

The insertion depth can be customized.

#### **Performance**

Capacity: 100m³/h Pressure: 2.4MPa **Characteristic** 

Compact design, direct flange connection between pump and drive, simple structure, reduced length, reduced weight, low usage and maintenance costs, simple and easy operation and maintenance.

The insertion depth can reach 10m.



## Z.NANCHI SHORT PUMP

Z.NANCHI short pump is designed and developed for limited installation site conditions. The pump adopts a compact design, with the motor placed on the pump body and equipped with a toothed belt pulley for transmission and deceleration, which greatly shortens the length of the pump. The reduction of occupied space effectively solves the problem of limited installation space.

# ND short pump Backpack design

#### **Performance**

Capacity: 30L/h-200m3/h

Pressure up to 2.4MPa or higher

# **Application scope**

The application is very extensive and applicable to almost all industries. Used in industries such as environmental protection, food, petroleum, and chemical engineering to transport various media with different viscosity ranges and solid content. Smooth, continuous, low pulsation, and shear free conveying, capable of passing through large solid particles.

#### Characteristic

The pump adopts backpack design, with compact structure. The motor placed on the pump body and equipped with a toothed belt pulley for transmission and deceleration, which greatly shortens the length of the pump. The reduction of occupied space effectively solves the problem of limited installation space.



## OTHER PRODUCTS

# NQ pulverization machine

Z.NANCHI pulverization machine, mainly used to prevent Z.NANCHI single screw pump is damaged and blocked by large solid particles. The medium conveyed by Z.NANCHI pump is pulverized by the pulverization machine and enters the pump to protect the pump and subsequent equipment.

# NQZ skid-mounted system

Z.NANCHI skid-mounted system can be designed as a whole and installed in a complete set according to the user's working conditions. Different configurations can be used on the same skid according to different applications: single screw pump, pulverization machine, filter, storage tank, valve, safety valve, pipeline, measurement and control instruments, metering system, control system, electrical control system. It can be automatically controlled. It greatly facilitates on-site installation and operation by customers.

# NJL metering system

Z.NANCHI metering system has high measurement accuracy and is mainly used for automated operations. Different configurations can be used according to different applications: metering pump, metering control, distributor, buffer tank.

The metering pump can be flexibly installed according to requirements, with a volumetric measurement accuracy of 99%. The system feeds itself and is equipped with a reflux system to prevent pump leakage. The minimum metering amount for a single operation is 0.075ml/min, and the minimum metering amount for a continuous operation is 2.25ml/min.

# NKZ control system

- Constant flow variable frequency control system
  - Z.NANCHI constant flow frequency conversion control system is mainly used in constant flow conveying situations, providing high-precision flow conveying.
- Constant pressure variable frequency control system
  - Z.NANCHI constant pressure variable frequency control system is mainly used in constant pressure conveying situations, meeting process requirements, achieving constant pressure requirements, and protecting equipment.
- Dry running protection and control system
  - Z.NANCHI dry running protection and control system is mainly used for conveying materials with slow fluidity and susceptibility to material breakage, to protect the stator from dry running.

# Z.NANCHI SCREW PUMP PERFORMANCE PARAMETERS NG series S-type

Model	Rated pressure		Speed r/min															
		604			533		467		408		366		324		292		262	
		Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	
	MPa	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW	
NG031	0.6	1.8	1.1	1.6	0.75	1.4	0.75	1.2	0.75	1.0	0.55	0.9	0.55	0.8	0.37	0.7	0.37	
	1.2	2.0	2.2	1.8	1.5	1.6	1.5	1.3	1.1	1.2	1.1	1.1	1.1	0.9	0.75	0.8	0.75	
	1.8	2.4	3.0	2.1	2.2	1.8	2.2	1.6	2.2	1.4	1.5	1.2	1.5	1.1	1.5	1.0	1.1	
	2.4	2.4	4.0	2.1	3.0	1.8	3.0	1.6	2.2	1.4	2.2	1.2	2.2	1.1	2.2	1.0	1.5	
NG038	0.6	3.8	1.5	3.3	1.5	2.9	1.1	2.4	1.1	2.1	0.75	1.8	0.75	1.6	0.75	1.4	0.55	
	1.2	3.8	3.0	3.3	3.0	2.9	2.2	2.5	2.2	2.3	2.2	2.0	1.5	1.8	1.5	1.6	1.1	
	1.8	3.8	4.0	3.3	4.0	2.9	3.0	2.5	3.0	2.3	3.0	2.0	2.2	1.8	2.2	1.6	2.2	
	2.4	3.8	5.5	3.3	5.5	2.9	5.5	2.5	4.0	2.3	4.0	2.0	3.0	1.8	3.0	1.6	3.0	
	0.6			6.4	3.0	5.6	2.2	4.8	2.2	4.3	2.2	3.7	1.5	3.3	1.5	2.9	1.1	
NG045	1.2			6.7	5.5	5.9	5.5	5.1	4.0	4.5	4.0	4.0	3.0	3.5	3.0	3.2	2.2	
	1.8			6.7	7.5	5.9	7.5	5.1	5.5	4.5	5.5	4.0	5.5	3.5	4.0	3.2	4.0	
	2.4			6.7	11	5.9	11	5.1	7.5	4.5	7.5	4.0	7.5	3.5	5.5	3.2	5.5	
	0.6			13.2	5.5	11.5	5.5	9.8	4.0	8.7	4.0	7.5	3.0	6.7	3.0	5.9	2.2	
NG053	1.2			13.5	11 15	11.9	11	10.3	7.5	9.2	7.5	8.1	7.5	7.3	5.5	6.5	5.5	
	1.8 2.4			13.5 13.5	18.5	11.9 11.9	15 18.5	10.3 10.3	11 15	9.2 9.2	11 15	8.1 8.1	11 15	7.3 7.3	7.5 11	6.5 6.5	7.5 11	
	0.6			13.5	10.5	17.0	7.5	14.4	5.5	12.8	5.5	11.1	5.5	9.9	4.0	8.7	4.0	
	1.2					17.5	15	15.2	11	13.5	11	11.9	11	10.7	7.5	9.5	7.5	
NG063	1.8					17.5	18.5	15.2	18.5	13.5	15	11.9	15	10.7	15	9.5	11	
	2.4					17.5	30	15.2	22	13.5	22	11.9	18.5	10.7	15	9.5	15	
	0.6					24.4	11	20.7	7.5	18.4	7.5	16.0	7.5	14.2	5.5	12.6	5.5	
	1.2					25.4	18.5	22.0	15	19.7	15	17.3	15	15.5	11	13.9	11	
NG076	1.8					25.4	30	22.0	22	19.7	22	17.3	18.5	15.5	18.5	13.9	15	
	2.4					25.4	37	22.0	30	19.7	30	17.3	30	15.5	22	13.9	18.5	
	0.6									35.3	15	30.3	11	26.5	11	23.1	11	
	1.2									37.8	30	33.2	30	29.7	22	26.5	18.5	
NG086	1.8									37.8	45	33.2	37	29.7	30	26.5	30	
	2.4									37.8	55	33.2	45	29.7	45	26.5	37	
	0.6													48.2	15	43.2	15	
NOOOO	1.2													48.2	30	43.2	30	
NG090	1.8													48.2	45	43.2	37	
	2.4													48.2	55	43.2	55	
NG107	0.6													66.3	18.5	59.5	18.5	
	1.2													66.3	37	59.5	37	
	1.8													71.6	75	59.5	55	
	2.4													71.6	90	59.5	75	
NG136	0.6															124.7	37	
	1.2															124.7	75	
	1.8															112.2	132	
	2.4															112.2	160	
NG148	0.6																	
	1.2																	
	1.8																	
	2.4																	
NG168	0.6																	
	1.2																	
	1.8																	
	2.4																	

# Z.NANCHI SCREW PUMP PERFORMANCE PARAMETERS NG series S-type

	Rated		Speed r/min														
Model	pressur	238 196						37 110			88		70		56		
IVIOUEI	e	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р	Q	Р
NG031	MPa 0.6 1.2 1.8 2.4	m³/h 0.9 0.9 0.9 0.9	0.55 0.75 1.1 1.5	m <sup>3</sup> /h 0.7 0.7 0.7 0.7 0.7	0.55 0.75 1.1 1.1	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW	m³/h	KW
NG038	0.6 1.2 1.8 2.4	1.6 1.6 1.6 1.6	0.75 1.5 2.2 3.0	1.0 1.2 1.2 1.2	0.55 1.1 1.5 2.2												
NG045	0.6 1.2 1.8 2.4	3.2 3.2 3.2 3.2	1.1 2.2 4.0 5.5	2.6 2.6 2.6 2.6	1.1 2.2 3.0 4.0	2.3 2.3 2.3 2.3	1.1 2.2 3.0 4.0										
NG053	0.6 1.2 1.8 2.4	6.5 6.5 6.5 6.5	3.0 5.5 7.5 11	5.2 5.2 5.2 5.2	2.2 4.0 5.5 7.5	4.8 4.8 4.8 4.8	2.2 4.0 5.5 7.5										
NG063	0.6 1.2 1.8 2.4	9.7 9.7 9.7 9.7	4.0 7.5 11 15	7.9 7.9 7.9 7.9	3.0 5.5 11 11	7.3 7.3 7.3 7.3	3.0 5.5 7.5 11										
NG076	0.6 1.2 1.8 2.4	13.4 13.4 13.4 13.4	5.5 11 15 18.5	10.9 10.9 10.9 10.9	4.0 7.5 11 15	10.1 10.1 10.1 10.1	4.0 7.5 11 15	7.4 7.4 7.4 7.4	3.0 5.5 7.5 11								
NG086	0.6 1.2 1.8 2.4	27.1 27.1 27.1 27.1	11 18.5 30 37	22 22 22 22 22	7.5 15 30 30	17.4 17.4 17.4 17.4	5.5 11 18.5 22	15.1 15.1 15.1 15.1	5.5 11 18.5 18.5	12.1 12.1 12.1 12.1	4.0 7.5 15 15						
NG090	0.6 1.2 1.8 2.4	38.8 38.8 38.8 38.8	11 18.5 37 45	31.5 31.5 31.5 31.5	11 15 30 37	24.9 24.9 24.9 24.9	7.5 15 22 30	21.6 21.6 21.6 21.6	7.5 15 18.5 30	17.4 17.4 17.4 17.4	5.5 11 15 22	13.7 13.7 13.7 13.7	4.0 11 15 18.5				
NG107	0.6 1.2 1.8 2.4	38.8 38.8 38.8 38.8	11 18.5 37 45	31.5 31.5 31.5 31.5	11 15 30 37	24.9 24.9 24.9 24.9	7.5 15 22 30	21.6 21.6 21.6 21.6	7.5 15 18.5 30	17.4 17.4 17.4 17.4	5.5 11 15 22	13.7 13.7 13.7 13.7	4.0 11 15 18.5				
NG136	0.6 1.2 1.8 2.4	54 54 58 58	15 30 55 75	44 44 47.5 47.5	15 30 45 55	35 35 37.8 37.8	11 22 37 45	30.4 30.4 32.9 32.9	11 18.5 30 45	24.4 24.4 26.4 26.4	7.5 15 30 30	19.3 19.3 20.9 20.9	7.5 15 18.5 30				
NG148	0.6 1.2 1.8 2.4	90.0 103.7 103.7 103.7	37 75 110 160	72.3 85.0 85.0 85.0	30 55 90 110	56.0 67.4 67.4 67.4	22 45 75 90	47.9 58.9 58.9 58.9	18.5 45 75 90	37.4 47.1 47.1 47.1	15 37 55 75	29.1 37.5 37.5 37.5	11 30 37 55	22.5 29.7 29.7 29.7	11 22 30 45		
NG168	0.6 1.2 1.8 2.4	163.4 176.4 176.4 176.4	55 132 200 250	133.0 144.8 144.8 144.8	45 110 160 200	104.5 114.8 114.8 114.8	37 75 110 160	90.6 100.5 100.5 100.5	30 75 110 132	71.9 80.4 80.4 80.4	30 55 90 110	56.7 64.1 64.1 64.1	22 45 75 90	44.6 50.8 50.8 50.8	15 37 55 75	35.2 40.5 40.5 40.5	15 30 45 55

## Z.NANCHI SINGLE SCREW PUMP SELECTION GUIDE

Z. NANCHI single screw pump is applicable to almost all industries, and is used to transport media with various viscosity ranges and different solids content. However, only with correct selection can the most economical effect and longest service life be achieved, and correct selection is very necessary. For this reason, we suggest that customers provide accurate usage parameters and conditions for selection by our company's professional technical personnel.

# Users provide accurate operating conditions parameters

- Capacity Q (m3/h).
- The required discharge pressure or pressure difference (MPa).
- Medium: including medium name, viscosity, solid content, specific gravity, concentration, gas-liquid ratio, medium working temperature, corrosiveness and abrasiveness, medium fluidity, etc.
- Working environment: whether there are explosion-proof, insulation level requirements, explosion-proof and protection levels.
- Installation: the direction of the suction/discharge and other requirements.
- Requirements for product matching: is speed regulation required and speed regulation method.

#### **Determine product specifications**

Determine the suitable speed range based on the viscosity, solid content, abrasiveness and other characteristics of the medium.

The number of stages of the pump is determined based on the working pressure, usually allowing for a working pressure of 0.6 MPa per stage.

Select the pump specification and determine the pump speed based on the capacity.

#### **Determine the motor**

Determine the shaft power of the pump, amplify the appropriate coefficient, and obtain the motor power.

#### **Determine the reducer**

Determine the reducer speed ratio based on the pump speed and motor speed.

Determine the structure of the reducer based on on-site installation conditions.

Verify the thermal power of the reducer.

Verify the axial bearing capacity and torque bearing capacity of the reducer.

#### **Determine pump material**

According to the characteristics of the medium, select the appropriate rubber materials, including the rubber material of the stator, the rubber sheath of the universal joint, and the rubber seal. According to the characteristics of the medium,

select the appropriate metal materials, including pump casing, rotor, intermediate shaft, coupling shaft, etc.

#### Determine the form of shaft seal

According to the medium characteristics and economy, select the packing seal or mechanical seal. If necessary, select a suitable flushing system.

# **Determine the installation form**

Determine horizontal installation, vertical installation, mobile installation, etc. based on on-site installation conditions.

#### **Determine product model**

Fill in the pump technical data sheet, determine the product model, and complete the selection form.

# Determine the correctness of pump selection

Recheck if all customer requirements have been met.



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