



Technical Catalogue



# NM Series

## Screw Pump

# What is a Single Screw Pump

## Dosing metering pump series

The single screw pump belongs to the rotor type positive displacement pump. The rotor and the stator driven by the external power source are engaged to form a sealed cavity that separates the suction chamber and the discharge body. The volume change in the sealed cavity is generated by the mutual meshing of the rotor and the stator, to transport materials.

## Which medium is suitable for single screw pump

- High solid content (up to 45% in sewage);
- Various viscosities (up to 1000000mPa.s);
- Materials containing solid particles or fibrous materials;
- Media that are highly shear sensitive or susceptible to centrifugal force;
- It also contains a multiphase mixture of gas, solid and liquid.



Honey, Maltose



Ink, Pigment



Chocolate Sauce



Petrochemical Industry

## Suitable medium for single screw pump

- Honey, maltose;
- Gas-containing liquid, coal-water slurry;
- Emulsion explosives;
- Butter, dairy products;
- Oil-water mixture;
- Biodiesel;
- Gelatin, resin;
- Jam, meat sauce;
- Oil and gas mixture;
- Biogas slurry, biogas residue;
- High polymer;
- Lotion, shampoo;
- Desulfurization sewage;
- Oil, crude oil;

## Characteristics of Single Screw Pump

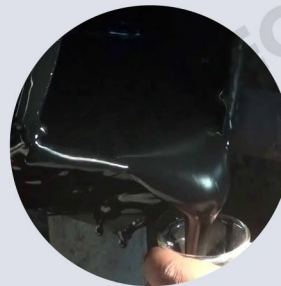
- High pump efficiency, energy saving and consumption reduction;
- The volumetric efficiency can reach more than 95%;
- The mechanical efficiency can reach 65~85%;
- There is no pulse in conveying, realizing uninterrupted conveying;
- Small mechanical vibration and low noise during operation;
- The flow rate is strictly proportional to the rotational speed, which is suitable for metering;
- It has little effect on the shearing property of the conveying medium;
- Insensitive to conveying medium containing gas and solid particles;
- Strong self-priming ability, the suction height can reach 5 meters;
- Changing the installation position does not affect the pump work;
- And can be installed at multiple angles;



Polymer Paint



Biodiesel



Coal Water Slurry



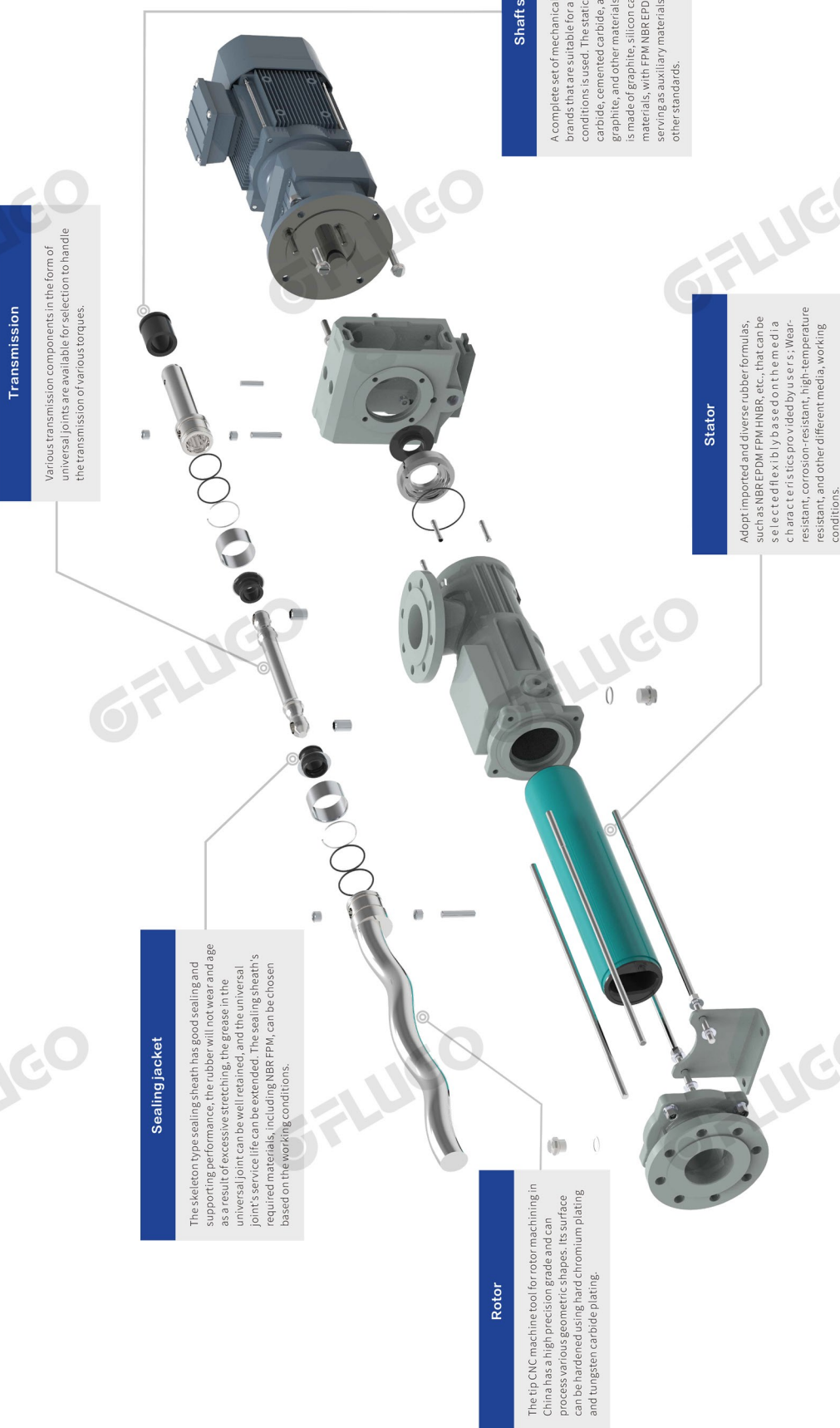
Sewage Treatment

## Suitable Medium for Single Screw Pump

- Chemical preparations such as acid and alkali;
- Starch, saponin;
- Dewatered sludge;
- Battery paste, paste;
- Additive;
- Broken fruit;
- Ink, pigment;
- Glue;
- Chocolate, etc;
- Mortar pulp, etc;
- Optical fiber ointment, etc;



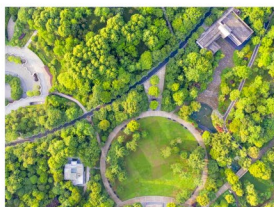
## Single screw pump design features





## Application Field

### | Environmental Protection



Conveying mud or dewatered sludge, the highest solid content can reach 45%;  
Metering and conveying of additives (PCM, PAM, lime milk, etc.) in sewage treatment;

### | Biomass Energy



The manure straw and other mixtures are transported to the biogas tank, and the gas-containing biogas slurry or biogas residue is output after fermentation;

### | Mechanical Processing



In the modern unmanned assembly workshop, the high-precision small metering pump can cooperate with the gluing and gluing process completed by the robotic arm;

## Petrochemical petroleum



Downhole single-screw oil pump is often used in the exploitation of sand, water and CO<sub>2</sub> or H<sub>2</sub>S crude oil;  
The multi-phase mixed-transport single-screw pump will realize the long-distance transportation of sand, gas and water-containing crude oil from the oil well storage tank to the combined station;  
Transportation of polymer solutions in oil fields;

## Energy industry



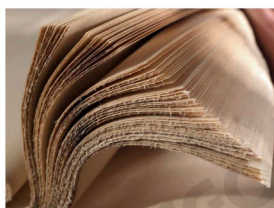
Continuous and uninterrupted transportation of highly abrasive coal-water slurry;  
Transport raw materials for preparing emulsion explosives that are sensitive to shear;  
The desulfurization wastewater from thermal power plants is highly abrasive, and is most suitable for single-screw pumps;  
Inject the muddled lead paste into the battery box;

## Environmental Protection



During mining and beneficiation, transportation of solid medium such as ore slurry and mortar;  
Delivery of various additives;  
Discharge of sewage containing solid particles;

## Papermaking industry



Single screw metering pump can realize precise injection of various papermaking additives, such as glidants, brighteners, dispersants, etc.;  
As well as mature starch, sizing and PVA for bonding and coating;

## Food Medicine/Cosmetics



In pharmaceutical factories, single-screw pumps of hygienic design are used to transport various raw materials;  
In other industries, single screw pumps can be seen everywhere, especially syrup, broken apples, tomatoes, distiller's grains, starch, shampoo, emulsion, puree mother liquor, etc.

## Common protective device of single screw pump

### Dry run protector

The temperature sensor installed on the stator surface continuously monitors the stator's temperature. When the temperature exceeds the set value, it sends a signal to the control system, which causes the pump to stop in order to protect it. Can be chosen based on the needs of the customer.



### Pressure Sensor

The control system continuously monitors and transmits signals based on the pump's outlet pressure. When the pump's outlet pressure exceeds the preset value, the control system shuts down the pump to protect it. It is also capable of feeding the plate-and-frame filter press. When the pump's outlet pressure (the internal pressure of the plate-and-frame filter press) reaches the preset value, the frequency converter reduces the pump's frequency for continuous feeding and pressure maintenance.



### Protecting mask

There is no protection for exposed rotating parts, according to the requirements of the occupational health and safety management system, and it is easy to be dangerous for employees to get close. TESK has designed a perforated protective cover for the safety of use, which can not only facilitate observation but also ensure the safety of use to a large extent.



### Check valve

The pump's outlet end is a high pressure end. When the pump is turned off, there is reverse pressure on the pump, which causes the rotor and driven motor to rotate backwards, posing a potential safety hazard. The one-way check valve can isolate the high-pressure medium from the pump's outlet end and protect the pump system.





## Shaft seal selection

### Packing seal

#### | Advantage

- ☆ Various raw materials and reliable sealing
- ☆ Low price and easy replacement
- ☆ Simple operation and convenient filling

#### | Shortcoming

- △ The friction between the shaft and the seal is fierce, which reduces the mechanical efficiency, and the temperature rises quickly and wears quickly
- △ The filler is lubricated by medium liquid film, allowing a small amount of leakage, and cannot be used in dangerous media and other working conditions

#### | Scope of application

- ◇ Low medium temperature, low corrosiveness and low rotating speed
- ◇ The requirement for medium leakage is not high
- ◇ Transportation of mud and mud cake in environmental protection solid control industry, oily sewage in petroleum and petrochemical industry, primary raw materials or non-toxic waste in food, chemical industry and environmental protection industry, etc



### Machinery Seal

#### | Advantage

- ☆ Good sealing effect, almost no leakage
- ☆ High reliability and long service life
- ☆ Good stability, no need to adjust during operation
- ☆ Good shock resistance and low vibration sensitivity
- ☆ Small frictional resistance, no loss of mechanical efficiency
- ☆ Strong adaptability, various structural forms are optional, and it is suitable for various working conditions
- ☆ Resistant to low and high temperature, vacuum and high pressure, corrosion and wear
- ☆ According to different working conditions, various mechanical seal types are provided, such as container type, bulk type, single end face or double end face.



## Selection of stator and rotor



### NMS Type

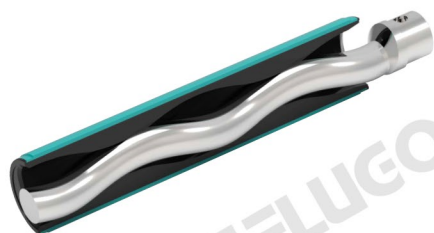
---

Standard lead/single head

1/2 stator cavity

Standard design, stable operation, common pump type

The flow rate can reach 300 m<sup>3</sup>/h and the working pressure can reach 4.8Mpa



### NML Type

---

Extended lead/single head

1/2 stator cavity

Suitable for low pressure and large flow conditions

The flow rate can reach 400 m<sup>3</sup>/h and the working pressure can reach 0.6Mpa.

# Introduction to common materials

## INTRODUCTION OF COMMONLY USED ELASTOMER MATERIALS FOR SINGLE SCREW PUMP RUBBER PARTS (STATOR RUBBER/PUMP BODY SEAL)

| Optional material               | Corrosion - resistant | Swelling resistance | Abrasion resistance | high-temperature resistance | Construction cost | Temperature tolerance range | Applicable material                                                            |
|---------------------------------|-----------------------|---------------------|---------------------|-----------------------------|-------------------|-----------------------------|--------------------------------------------------------------------------------|
| NBR                             | Middle                | Good                | Middle              | Middle                      | Low               | -30~100°C                   | Petroleum, sewage, food and beverage, papermaking                              |
| Wear-resistant nitrile rubber   | Middle                | Be poor             | Particularly good   | Middle                      | Low               | -30~100°C                   | Coal water slurry, materials containing sand and grave                         |
| Food rubber                     | Middle                | Good                | Middle              | Middle                      | Low               | -30~100°C                   | Food and beverage, non-polluting materials                                     |
| High performance nitrile rubber | Good                  | Particularly good   | Good                | Middle                      | Low               | -30~120°C                   | Petroleum, refining, chemical industry, sewage                                 |
| EPDM                            | Good                  | Be poor             | Good                | Middle                      | Low               | -40~120°C                   | Chemicals, chemicals, paper making, materials containing organic solvents      |
| FPM                             | Very good             | Very good           | Be poor             | Very good                   | High              | -20~200°C                   | Chemical, high temperature, corrosive and organic solvent-containing materials |
| HNBR                            | Very good             | Good                | Good                | Very good                   | High              | -20~150°C                   | High temperature, petroleum, petrochemical and chemical industries, etc.       |
| PTFE                            | Very good             | Very good           | Be poor             | Very good                   | High              | -100~280°C                  | Materials with strong corrosion and high temperature such as acid and alkali   |

## INTRODUCTION OF COMMON MATERIALS FOR METAL PARTS OF SINGLE SCREW ROD PUMP (SHELL PARTS\FLOW PARTS\ROTOR)

| Commonly used metal materials | Corrosion - resistant | Abrasion resistance | Cl-resistant Cl-concentration | Construction cost | Applicable material                                                                         |
|-------------------------------|-----------------------|---------------------|-------------------------------|-------------------|---------------------------------------------------------------------------------------------|
| Alloy carbon steel CRS        | Common                | Common              | Be intolerant                 | Low               | Abrasive, non-corrosive, can not be used in food                                            |
| CRS hardening treatment       | Common                | Very good           | Be intolerant                 | Low               | Non-corrosive, but often abrasive                                                           |
| SS420 hardening treatment     | Medium                | Good                | Be intolerant                 | Low               | Slightly corrosive and abrasive                                                             |
| SS304                         | Good                  | Medium              | <100                          | Middle            | Food industry and acid materials without abrasive requirements                              |
| SS304 hardening treatment     | Good                  | Good                | <100                          | Middle            | It is corrosive and abrasive and cannot be used in food                                     |
| SS316                         | Good                  | Medium              | 100~2000                      | High side         | Food industry and acid materials without abrasive requirements                              |
| SS316 hardening treatment     | Very good             | Very good           | 100~2000                      | High side         | It is corrosive and abrasive and cannot be used in food                                     |
| DUPLEX SS                     | Very good             | Very good           | 1000~40000                    | High              | Containing high chloride ion, It is corrosive and non-abrasive                              |
| DUPLEX SS hardening treatment | Particularly good     | Particularly good   | 1000~40000                    | High              | It contains high chloride ions, Is corrosive, and has certain abrasiveness                  |
| 904L                          | Particularly good     | Medium              | 1000~40000                    | High              | Chemical dyes and raw materials containing sulfuric acid and dilute sulfuric acid, etc      |
| Titanium alloy                | Particularly good     | Medium              | 1000~40000                    | High              | Chemical dyes and raw materials containing hydrochloric acid and concentrated sulfuric acid |



# Performance parameter table of single screw pump

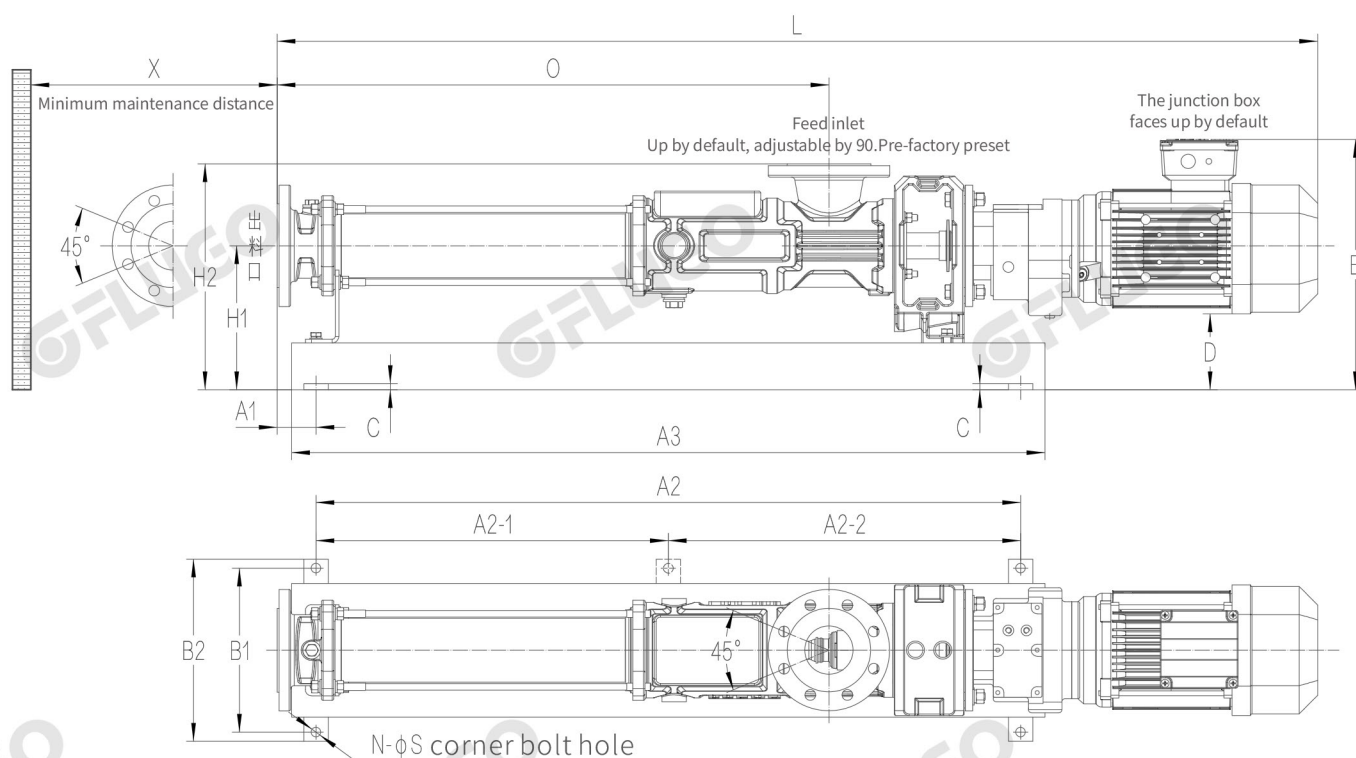
NML series/first stage long lead/WB type horizontal direct-coupled pump

| Model  | Flow<br>(m³/h) | Clean water shaft<br>power<br>(kW) | Standard interface | Rated pressure<br>(bar) |
|--------|----------------|------------------------------------|--------------------|-------------------------|
| NML20  | 0.5            | 0.15                               | G1-1/4             | 6                       |
|        | 0.7            | 0.18                               |                    |                         |
|        | 0.8            | 0.23                               |                    |                         |
|        | 1              | 0.27                               |                    |                         |
|        | 1.2            | 0.32                               |                    |                         |
| NML30  | 1.5            | 0.44                               | Flange DN50/PN16   |                         |
|        | 2              | 0.52                               |                    |                         |
|        | 2.3            | 0.59                               |                    |                         |
|        | 2.6            | 0.68                               |                    |                         |
|        | 2.8            | 0.72                               |                    |                         |
|        | 3.3            | 0.87                               |                    |                         |
| NML35  | 4.3            | 1.09                               | Flange DN65/PN16   |                         |
|        | 5.8            | 1.41                               |                    |                         |
|        | 6.5            | 1.58                               |                    |                         |
|        | 7.5            | 1.82                               |                    |                         |
|        | 8.2            | 1.95                               |                    |                         |
| NML40  | 8              | 1.84                               | Flange DN80/PN16   |                         |
|        | 9              | 2.01                               |                    |                         |
|        | 10             | 2.23                               |                    |                         |
|        | 11.5           | 2.57                               |                    |                         |
|        | 13             | 2.63                               |                    |                         |
|        | 15             | 3.06                               |                    |                         |
| NML50  | 14             | 2.64                               | Flange DN80/PN16   |                         |
|        | 15.5           | 3.01                               |                    |                         |
|        | 17.2           | 3.33                               |                    |                         |
|        | 20             | 3.86                               |                    |                         |
|        | 23             | 4.42                               |                    |                         |
| NML60  | 25             | 5.55                               | Flange DN100/PN16  |                         |
|        | 28             | 6.24                               |                    |                         |
|        | 34             | 7.66                               |                    |                         |
| NML70  | 40             | 7.58                               | Flange DN125/PN16  |                         |
|        | 45             | 8.05                               |                    |                         |
|        | 48             | 8.66                               |                    |                         |
|        | 53             | 9.63                               |                    |                         |
|        | 57             | 10.3                               |                    |                         |
|        | 60             | 11.22                              |                    |                         |
|        | 62             | 11.84                              |                    |                         |
| NML90  | 67             | 11.8                               | Flange DN150/PN16  |                         |
|        | 75             | 14.02                              |                    |                         |
|        | 93             | 16.3                               |                    |                         |
|        | 106            | 18.9                               |                    |                         |
| NML100 | 90             | 17.17                              | Flange DN150/PN16  |                         |
|        | 105            | 19.76                              |                    |                         |
|        | 120            | 21.83                              |                    |                         |
|        | 140            | 24.93                              |                    |                         |
| NML120 | 142            | 25.25                              | Flange DN200/PN16  |                         |
|        | 170            | 30.65                              |                    |                         |
|        | 195            | 34.83                              |                    |                         |

## NMS series/multi-stage standard lead/WB horizontal direct-coupled pump

| Model                 | Flow<br>(m³/h) | Clean water shaft<br>power<br>(kW) |         |         | Standard interface   |                      |                      | Rated pressure<br>(bar) |         |         |
|-----------------------|----------------|------------------------------------|---------|---------|----------------------|----------------------|----------------------|-------------------------|---------|---------|
|                       |                | Level 2                            | Level 3 | Level 4 | Level 2              | Level 3              | Level 4              | Level 2                 | Level 3 | Level 4 |
| NMS20<br>Level 2/4    | 0.27           | 0.15                               | ----    | 0.29    | G1-1/4               | ----                 | Flange<br>DN50/PN25  | 12                      | 18      | 24      |
|                       | 0.35           | 0.18                               | ----    | 0.36    |                      |                      |                      |                         |         |         |
|                       | 0.45           | 0.23                               | ----    | 0.45    |                      |                      |                      |                         |         |         |
|                       | 0.56           | 0.29                               | ----    | 0.57    |                      |                      |                      |                         |         |         |
|                       | 0.63           | 0.33                               | ----    | 0.64    |                      |                      |                      |                         |         |         |
| NMS30<br>Level 2/4    | 0.7            | 0.34                               | ----    | 0.66    | Flange<br>DN50/PN16  | ----                 | Flange<br>DN65/PN25  |                         |         |         |
|                       | 0.9            | 0.44                               | ----    | 0.86    |                      |                      |                      |                         |         |         |
|                       | 1.2            | 0.53                               | ----    | 1.02    |                      |                      |                      |                         |         |         |
|                       | 1.5            | 0.69                               | ----    | 1.32    |                      |                      |                      |                         |         |         |
|                       | 1.85           | 0.83                               | ----    | 1.61    |                      |                      |                      |                         |         |         |
| NMS35<br>Level 2/4    | 2              | 0.92                               | ----    | 1.76    | Flange<br>DN65/PN16  | ----                 | Flang<br>DN80/PN25   |                         |         |         |
|                       | 2.5            | 1.11                               | ----    | 2.13    |                      |                      |                      |                         |         |         |
|                       | 3              | 1.43                               | ----    | 2.74    |                      |                      |                      |                         |         |         |
|                       | 3.5            | 1.6                                | ----    | 3.07    |                      |                      |                      |                         |         |         |
|                       | 4              | 1.85                               | ----    | 3.16    |                      |                      |                      |                         |         |         |
| NMS40<br>Level 2/3/4  | 4.3            | 1.98                               | ----    | 3.37    | Flange<br>DN80/PN16  | Flange<br>DN80/PN25  |                      |                         |         |         |
|                       | 4              | 1.79                               | 2.66    | 3.05    |                      |                      |                      |                         |         |         |
|                       | 4.5            | 2.03                               | 2.68    | 3.46    |                      |                      |                      |                         |         |         |
|                       | 5              | 2.26                               | 3       | 3.87    |                      |                      |                      |                         |         |         |
|                       | 5.6            | 2.31                               | 3.43    | 4.42    |                      |                      |                      |                         |         |         |
| NMS50<br>Level 2/3/4  | 6.5            | 2.66                               | 3.95    | 5.1     | Flange<br>DN80/PN16  | Flange<br>DN80/PN25  | Flange<br>DN100/PN25 |                         |         |         |
|                       | 6.5            | 2.68                               | 3.97    | 5.13    |                      |                      |                      |                         |         |         |
|                       | 7.8            | 3.05                               | 4.53    | 5.84    |                      |                      |                      |                         |         |         |
|                       | 8.8            | 3.38                               | 5.01    | 6.47    |                      |                      |                      |                         |         |         |
|                       | 10             | 3.91                               | 5.8     | 7.48    |                      |                      |                      |                         |         |         |
| NMS60<br>Level 2/3/4  | 11.5           | 4.49                               | 6.65    | 8.58    | Flange<br>DN100/PN16 | Flange<br>DN100/PN25 | Flange<br>DN125/PN25 |                         |         |         |
|                       | 8              | 4.04                               | 5.98    | 7.26    |                      |                      |                      |                         |         |         |
|                       | 10             | 4.38                               | 6.48    | 7.68    |                      |                      |                      |                         |         |         |
|                       | 11.8           | 4.98                               | 7.37    | 8.75    |                      |                      |                      |                         |         |         |
|                       | 13             | 5.63                               | 8.34    | 9.89    |                      |                      |                      |                         |         |         |
| NMS70<br>Level 2/3/4  | 15             | 6.33                               | 8.62    | 11.12   | Flange<br>DN125/PN16 | Flange<br>DN125/PN25 | Flange<br>DN150/PN25 |                         |         |         |
|                       | 18.4           | 7.78                               | 10.59   | 13.67   |                      |                      |                      |                         |         |         |
|                       | 16.6           | 6.93                               | 9.42    | 12.16   |                      |                      |                      |                         |         |         |
|                       | 19             | 7.94                               | 10.8    | 13.93   |                      |                      |                      |                         |         |         |
|                       | 22             | 8.88                               | 12.07   | 15.57   |                      |                      |                      |                         |         |         |
| NMS90<br>Level 2/3/4  | 25             | 10.62                              | 14.43   | 18.62   | Flange<br>DN150/PN16 | Flange<br>DN150/PN25 |                      |                         |         |         |
|                       | 28             | 11.37                              | 16.8    | 21.68   |                      |                      |                      |                         |         |         |
|                       | 16.5           | 5.95                               | 8.78    | 11.33   |                      |                      |                      |                         |         |         |
|                       | 28.7           | 10.39                              | 15.34   | 19.8    |                      |                      |                      |                         |         |         |
|                       | 33             | 11.96                              | 17.66   | 22.78   |                      |                      |                      |                         |         |         |
| NMS100<br>Level 2/3/4 | 40             | 14.21                              | 20.98   | 27.08   | Flange<br>DN150/PN16 | Flange<br>DN150/PN25 | Flange<br>DN250/PN25 |                         |         |         |
|                       | 45             | 16.53                              | 24.4    | 31.49   |                      |                      |                      |                         |         |         |
|                       | 27.5           | 9.87                               | 14.56   | 18.78   |                      |                      |                      |                         |         |         |
|                       | 42             | 15.74                              | 23.23   | 29.97   |                      |                      |                      |                         |         |         |
|                       | 45             | 17.42                              | 25.71   | 33.17   |                      |                      |                      |                         |         |         |
| NMS120<br>Level 2/4   | 50             | 20.05                              | 29.58   | 38.16   | Flange<br>DN200/PN16 | ----                 | Flange<br>DN300/PN25 |                         |         |         |
|                       | 60             | 22.15                              | 32.67   | 42.16   |                      |                      |                      |                         |         |         |
|                       | 70             | 25.29                              | 37.32   | 48.15   |                      |                      |                      |                         |         |         |
|                       | 47             | 16.6                               | 24.47   | 31.57   |                      |                      |                      |                         |         |         |
|                       | 72             | 25.6                               | 37.75   | 48.7    |                      |                      |                      |                         |         |         |
|                       | 86             | 31.08                              | 45.82   | 59.12   |                      |                      |                      |                         |         |         |
|                       | 100            | 37.26                              | 54.93   | 70.87   |                      |                      |                      |                         |         |         |
|                       | 115            | 40.26                              | 59.35   | 76.58   |                      |                      |                      |                         |         |         |

# Installation dimension table of single screw pump



NML primary long lead/HS secondary standard lead/Wb horizontal direct-coupled pump

| Model                            | A1<br>(mm) | A2<br>(mm) |      | A3<br>(mm) | B1<br>(mm) | B2<br>(mm) | C<br>(mm) | D<br>(mm) | E<br>(mm) | H1<br>(mm) | H2<br>(mm) | O<br>(mm) | L<br>(mm) | N-φS<br>(mm) | X<br>(mm) |
|----------------------------------|------------|------------|------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|--------------|-----------|
|                                  |            | A2-1       | A2-2 |            |            |            |           |           |           |            |            |           |           |              |           |
| NML20 Level 1<br>NMS20 Level 2   | 40.5       | 607        |      | 687        | 180        | 210        | 8         | 83        | 288       | 158        | 218        | 405.5     | 1091      | 4-φ14        | 250       |
| NML30 Level 1<br>NMS30 Level 2   | 58         | 820        |      | 897        | 220        | 250        | 8         | 77        | 318       | 180        | 273        | 523.5     | 1320      | 4-φ14        | 310       |
| NML35 Level 1<br>NMS35 Level 2   | 59.5       | 970        |      | 1050       | 230        | 260        | 10        | 97        | 358       | 200        | 305        | 758.5     | 1645      | 4-φ16        | 430       |
| NML40 Level 1<br>NMS40 Level 2   | 64         | 1160       |      | 1240       | 270        | 300        | 10        | 125       | 412       | 237        | 372        | 908.5     | 1725      | 4-φ16        | 500       |
| NML50 Level 1<br>NMS50 Level 2   | 68.5       | 685        | 685  | 1450       | 300        | 330        | 10        | 116       | 439       | 248        | 383        | 1075.5    | 2103      | 6-φ16        | 600       |
| NML60 Level 1<br>NMS60 Level 2   | 94         | 810        | 810  | 1700       | 340        | 380        | 15        | 118       | 514       | 282        | 447        | 1281.5    | 2472      | 6-φ18        | 690       |
| NML70 Level 1<br>NMS70 Level 2   | 98         | 935        | 935  | 1950       | 380        | 420        | 15        | 147       | 543       | 313        | 493        | 1469.5    | 2747      | 6-φ18        | 800       |
| NML90 Level 1<br>NMS90 Level 2   | 93         | 1080       | 1080 | 2250       | 420        | 460        | 15        | 126       | 642       | 346        | 531        | 1714.5    | 3210      | 6-φ20        | 950       |
| NML100 Level 1<br>NMS100 Level 2 | 96         | 1260       | 1260 | 2500       | 460        | 500        | 15        | 150       | 676       | 380        | 585        | 2102      | 3607      | 6-φ20        | 1180      |
| NML120 Level 1<br>NMS120 Level 2 | 97         | 1455       | 1455 | 2990       | 460        | 500        | 15        | 80        | 741       | 400        | 630        | 2520      | 4376      | 6-φ20        | 1600      |

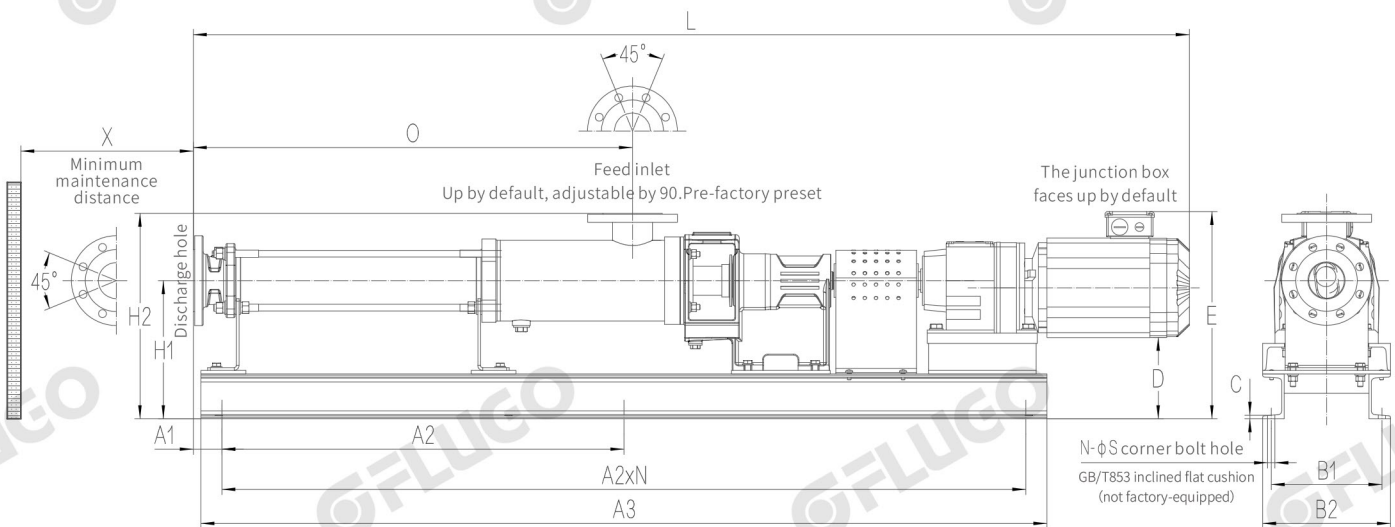
Note: The values of D, E and L are the parameters of Shimizu's most configured power and speed, Dongli RF reducer and frequency conversion motor!



### NMS three-stage and four-stage standard lead/Wb horizontal direct-coupled pump

| Model         | A1<br>(mm) | A2<br>(mm) |      | A3<br>(mm) | B1<br>(mm) | B2<br>(mm) | C<br>(mm) | D<br>(mm) | E<br>(mm) | H1<br>(mm) | H2<br>(mm) | O<br>(mm) | L<br>(mm) | N-ΦS<br>(mm) | X<br>(mm) |
|---------------|------------|------------|------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|--------------|-----------|
|               |            | A2-1       | A2-2 |            |            |            |           |           |           |            |            |           |           |              |           |
| NMS20 Level 4 | 64         | 876        |      | 956        | 220        | 250        | 8         | 83        | 288       | 180        | 273        | 675       | 1385      | 4-Φ14        | 450       |
| NMS30 Level 4 | 65         | 1224       |      | 1300       | 230        | 260        | 10        | 77        | 318       | 200        | 305        | 928       | 1805      | 4-Φ16        | 590       |
| NMS35 Level 4 | 72         | 1495       |      | 1786       | 300        | 330        | 10        | 88        | 375       | 248        | 383        | 1283      | 2208      | 4-Φ16        | 830       |
| NMS40 Level 3 | 72         | 1434       |      | 1514       | 300        | 330        | 10        | 121       | 412       | 248        | 383        | 1182      | 2213      | 4-Φ16        | 730       |
| NMS40 Level 4 | 69         | 879        | 879  | 1838       | 340        | 380        | 15        | 101       | 424       | 282        | 432        | 1506      | 2551      | 6-Φ16        | 960       |

Note: The values of D, E and L are the parameters of Shimizu's most configured power and speed, Dongli RF reducer and frequency conversion motor!

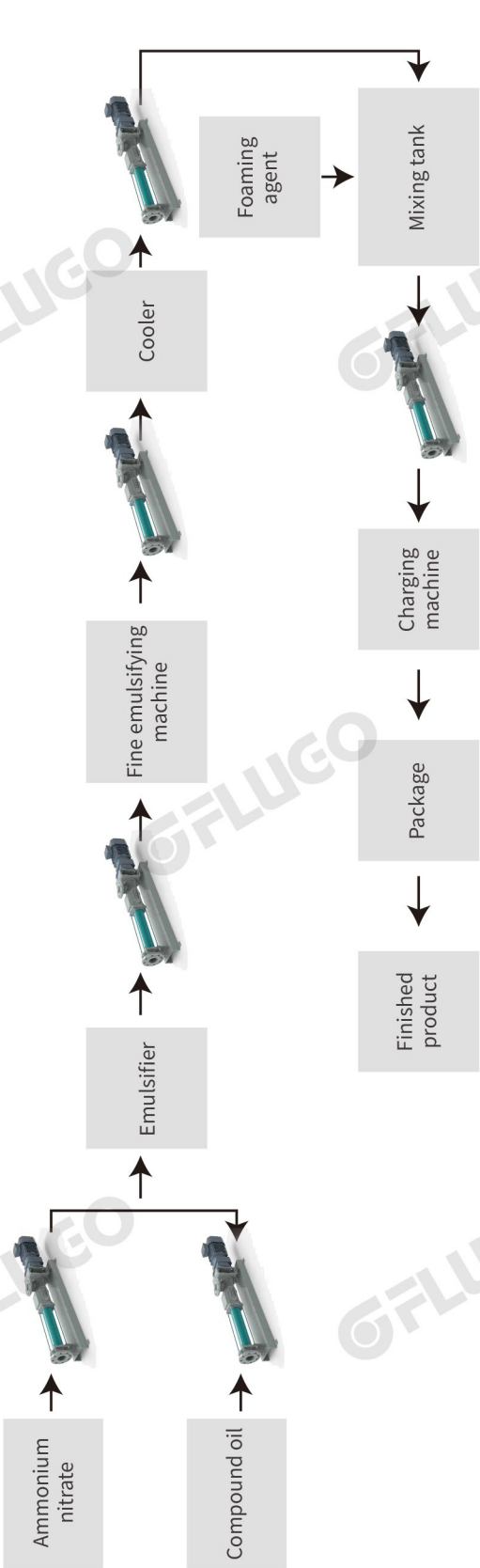


### NMS three-stage and four-stage standard lead/WS horizontal bearing pedestal pump

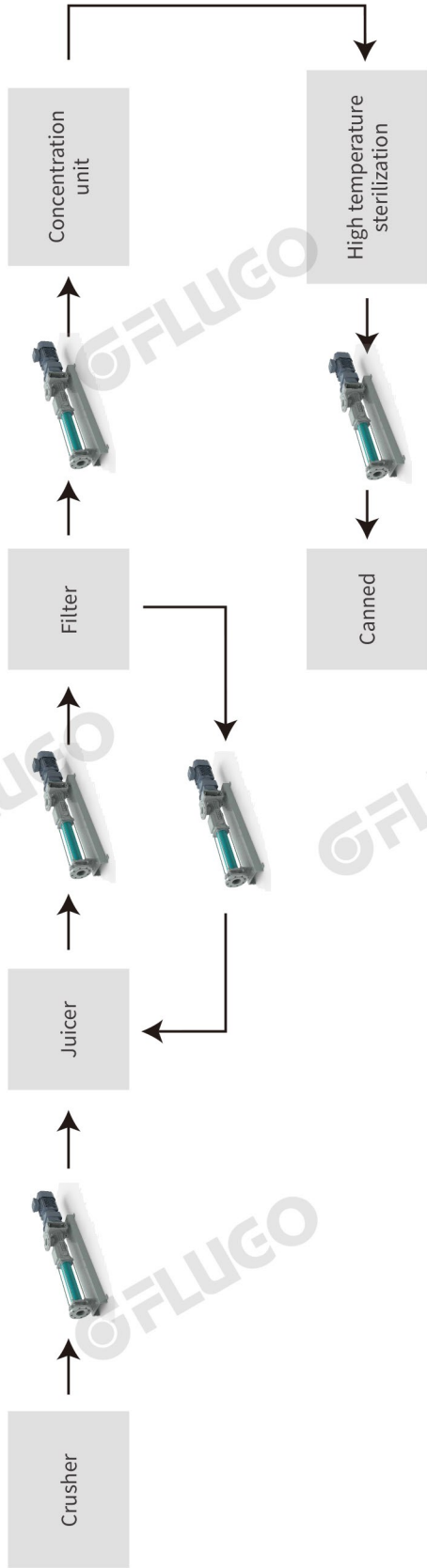
| Model          | A1<br>(mm) | A2xN<br>(mm) | A3<br>(mm) | B1<br>(mm) | B2<br>(mm) | C<br>(mm) | D<br>(mm) | E<br>(mm) | H1<br>(mm) | H2<br>(mm) | O<br>(mm) | L<br>(mm) | N-ΦS<br>(mm) | X<br>(mm) |
|----------------|------------|--------------|------------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|-----------|--------------|-----------|
| NMS50 Level 3  | 69         | 1109x2       | 2298       | 246        | 281        | 8         | 147       | 527       | 310        | 460        | 1429      | 2976      | 6-Φ16        | 880       |
| NMS50 Level 4  | 107        | 1390x2       | 2860       | 267        | 302        | 8         | 172       | 552       | 338        | 503        | 1801      | 3563      | 6-Φ16        | 1170      |
| NMS60 Level 3  | 107        | 873x3        | 2699       | 267        | 302        | 8         | 172       | 552       | 338        | 503        | 1642      | 3404      | 8-Φ16        | 1010      |
| NMS60 Level 4  | 112        | 1060x3       | 3260       | 291        | 326        | 8         | 199       | 639       | 383        | 563        | 2042      | 4019      | 8-Φ16        | 1330      |
| NMS70 Level 3  | 112        | 1005x3       | 3095       | 296        | 336        | 9         | 221       | 661       | 405        | 585        | 1876      | 3855      | 8-Φ18        | 1170      |
| NMS70 Level 4  | 119        | 1223x3       | 3749       | 336        | 376        | 9         | 202       | 717       | 430        | 635        | 2400      | 4579      | 8-Φ18        | 1540      |
| NMS90 Level 3  | 119        | 1173x3       | 3599       | 336        | 376        | 9         | 205       | 720       | 433        | 638        | 2247      | 4426      | 8-Φ18        | 1390      |
| NMS90 Level 4  | 109        | 1094x4       | 4456       | 386        | 426        | 9         | 218       | 789       | 488        | 708        | 2971      | 5330      | 10-Φ20       | 2200      |
| NMS100 Level 3 | 109        | 1070x4       | 4360       | 386        | 426        | 9         | 233       | 804       | 503        | 723        | 2874      | 5233      | 10-Φ20       | 1740      |
| NMS100 Level 4 | 122        | 1068x5       | 5420       | 466        | 506        | 9         | 265       | 860       | 543        | 818        | 3721      | 6421      | 12-Φ20       | 2300      |
| NMS120 Level 3 | 122        | 1065x5       | 5405       | 466        | 516        | 10        | 280       | 976       | 603        | 858        | 3559      | 6515      | 12-Φ24       | 2300      |
| NMS120 Level 4 | 129        | 1082x6       | 6572       | 546        | 596        | 10        | 323       | 1018      | 673        | 983        | 4408      | 7695      | 14-Φ24       | 3000      |

Note: The values of D, E and L are the parameters of Shimizu's most configured power and speed, Dongli RF reducer and frequency conversion motor!

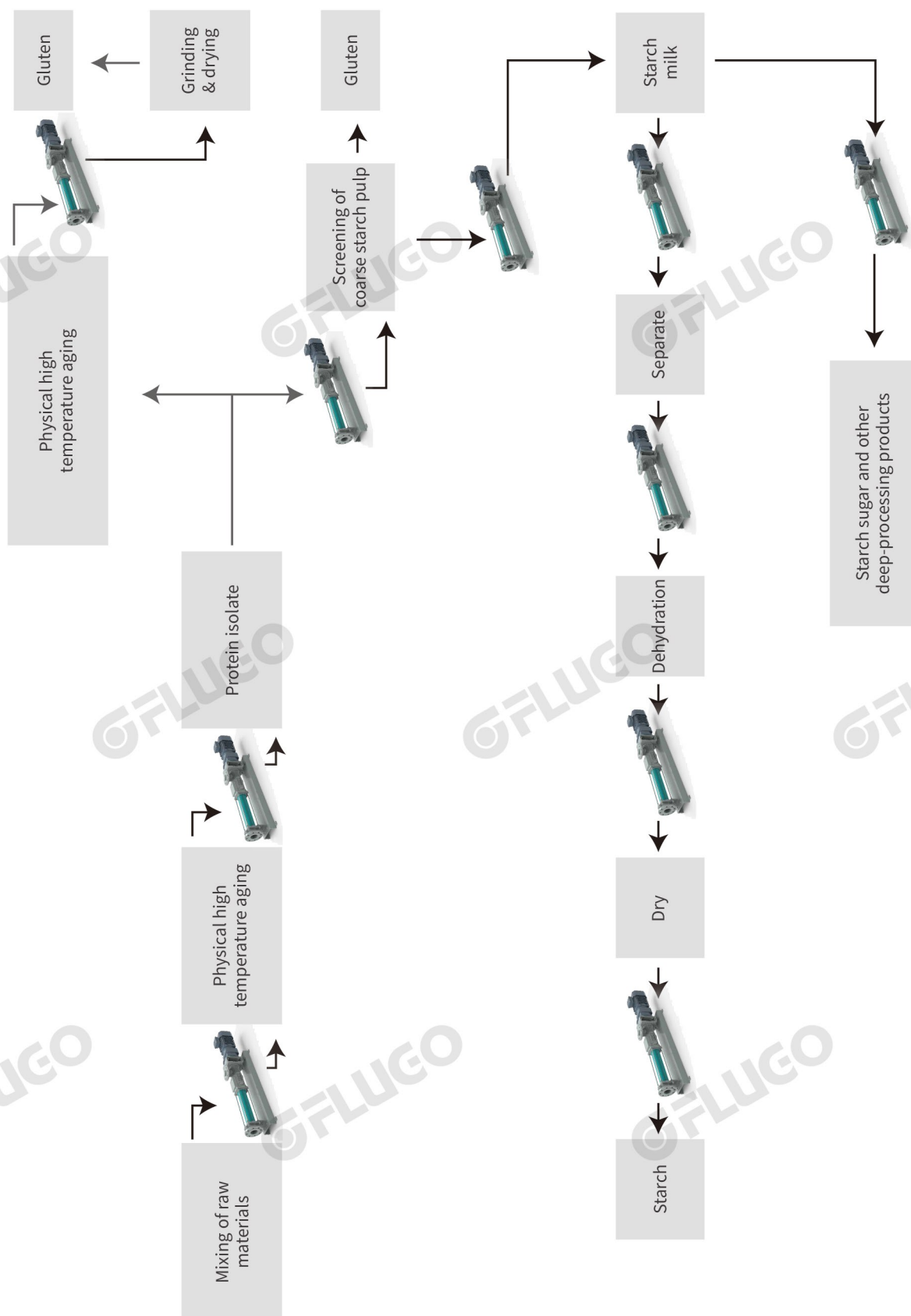
Flow chart of pump for emulsion explosive industry



Flow chart for pump juice processing industry



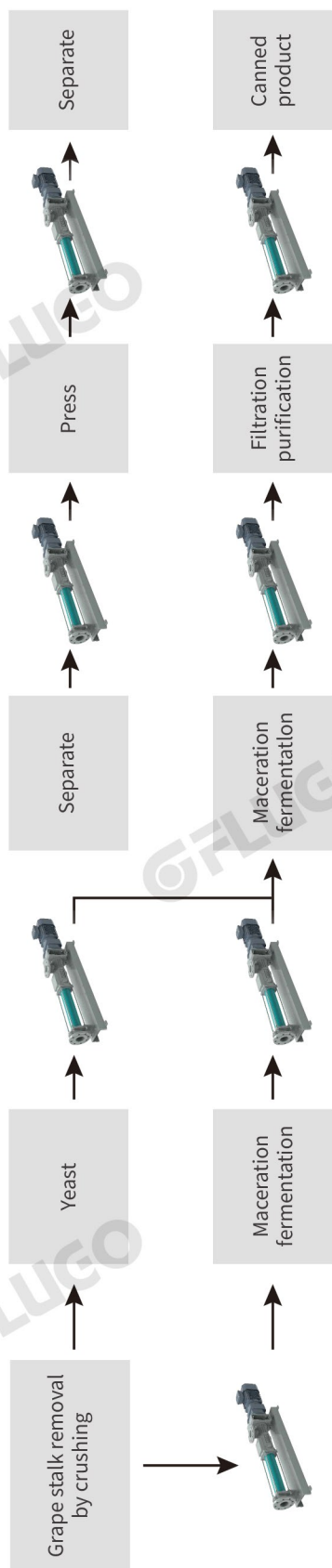
Flow chart of pump used in starch processing industry



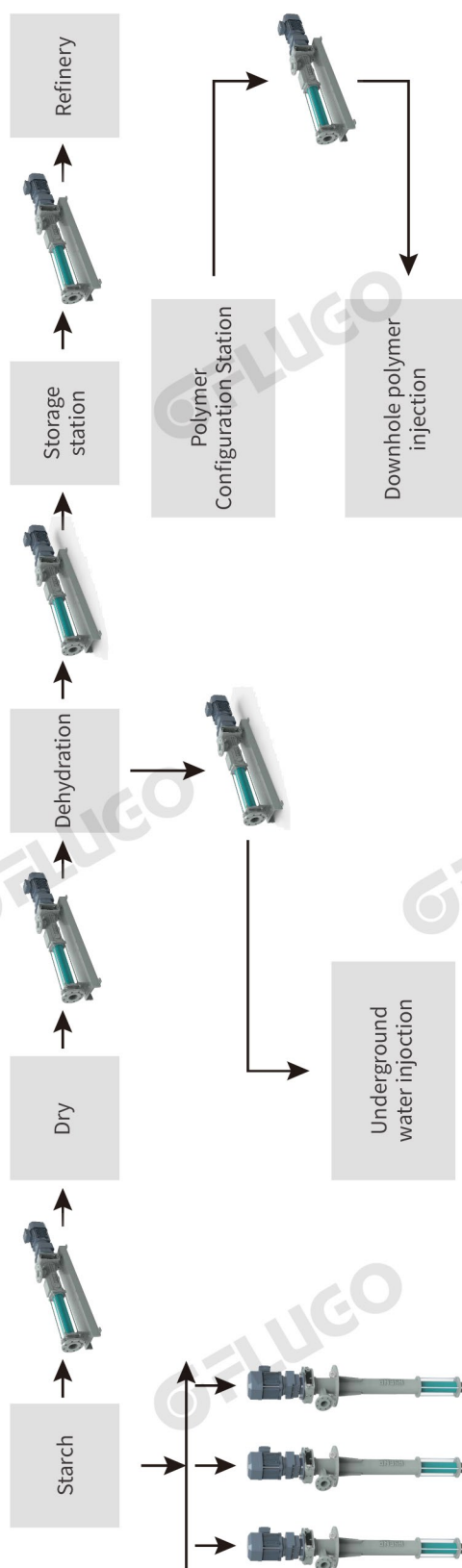




Winery Processing Flow Chart



Flow chart of pump used oil field industry



## Huisheng's after-sales service commitment

Operator training

Guide customers to solve problems encountered during use as soon as possible

Arrive at the user's site for maintenance

User's preliminary technical consultation

## Huisheng spare parts supply

Huisheng has a regular inventory of commonly used spare parts and vulnerable parts for users to ensure timely delivery in case of urgent need

Various models of rotors and stators

Sealing rings of various models

Various models of shafts, pins, and sleeves



SCREW PUMP





NM Series Screw Pump

Authorized Distributor