

## TU 系列转子泵

### TU series lobe pump

双向可逆、高压、高低粘稠、  
固体颗粒输送高洁净的解决方案

Solution for two-direction reversible, high pressure,  
high and low viscosity, solid particles, high clean transportation



### TU系列转子泵 TU series lobe pump

TU系列，是标准配置的转子泵，齿轮箱为铸铁，其余为不锈钢制造。

TU series is a standard rotor pump with cast iron gearbox. The other parts are made of stainless steel.



### STU系列转子泵 STU series lobe pump

STU系列，是全不锈钢材质的转子泵，除去橡胶和机械密封及齿轮和轴承组件外，其余为全不锈钢材质，包含齿轮箱。

STU series is a whole stainless steel rotor pump. Excluding rubber, mechanical seal, gear & bearing assembly, the rest parts including gearbox are made of stainless steel.

# TU 系列转子泵

## TU series lobe pump

### 转子泵

DONJOY转子泵设计有多种配置，其中分为TU系列为标准配置，STU系列为全不锈钢配置，是一款正位移凸轮转子泵，严格按照美国3A-02-11卫生要求设计，非常适合食品加工，饮料、果汁、乳制品、化妆品、制药工业等各种高粘稠和低粘稠物料的输送，也可以输送含有固体颗粒物料，还可以应用在CIP和SIP系统上。该泵还具有其他容积泵所不具备的性能，如低脉冲、高压、进出口双向可逆、功能组合灵活。

应用范围请查阅典型应用表。

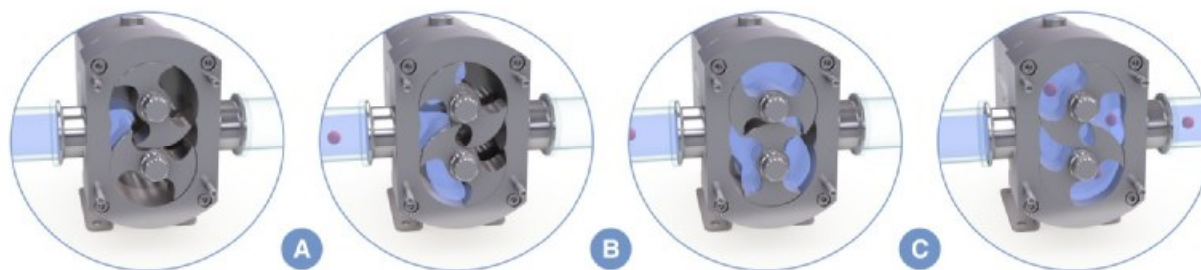
For application range, please check typical application sheet.

### 技术参数 Technical Specifications

|                        |                                                                 |
|------------------------|-----------------------------------------------------------------|
| 最大流量 Max.flow          | 90m <sup>3</sup> /h/395 GPM                                     |
| 最高压力 Max.pressure      | 15bar/220 Psi                                                   |
| 最高温度 Max.Temperature   | 150°C/302° F                                                    |
| 最高转速 Max.rev           | 750 rpm                                                         |
| 表面处理 Surface treatment | ≤ Ra0.8 μm, ≤ Ra0.6 μm, ≤ Ra0.4 μm                              |
| 材质 Material            | 316L, 1.4404, ASME BPE 316L, 1.4435 NB2 Fe≤0.5%                 |
| 认证 Certification       | 3-A-02-11 No.1759; FDA 177.2600; CE-MD/06-42 No.705201402401-00 |

### 工作原理图

转子泵是一种正位移排量的泵，左凸轮由驱动轴驱动，右凸轮安装在驱动轴上，通过齿轮驱动。两个凸轮同步转动彼此不会干涉。当泵工作时就可以移置出一定容量的溶液。下图显示了凸轮泵的工作原理。

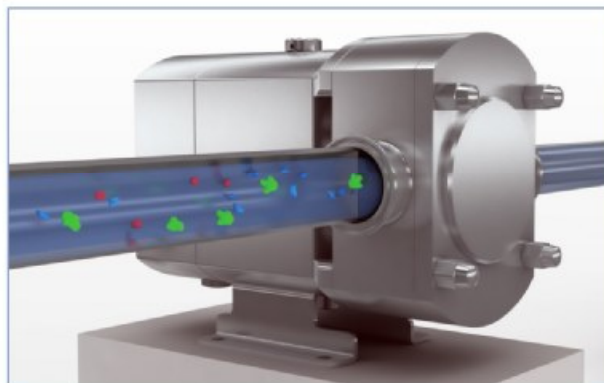


- A、当凸轮旋转时，吸入侧空间增大，因为一个凸轮从一侧移动到另一侧，这样就产生真空，把溶液抽到泵腔中。  
B、当轴旋转时，每个凸轮都会不断的被充满，液体会移置到排出口一侧。凸轮之间，凸轮和泵体壁之间的小空隙将会很好的闭合。  
C、泵体完全被充满，液体通过凸轮移出，由此完成了泵的整个工作过程。

- A. When the lobes rotate, increased distance of two lobes cause space at the suction end to increase thereby causing a partial vacuum to draw fluid into the pump chamber.  
B. According to principle of shaft rotation, each lobe consecutively feed air, to bring fluid to transfer end. Gaps between two lobes and between lobe & wall of pump body are duly filled.  
C. After pump housing is completely filled, fluid escapes through lobes. This completes entire working process of pump.

### Lobe pumps

Donjoy lobe pump has a variety of configuration, TU-series is standard configuration, STU-series is all stainless steel. It is a positive displacement rotary lobe pump designed according to USA 3A-02-11 standard, very suitable for transportation of various highly viscous and low viscous material, such as food processing, beverages, juices, dairy products, cosmetics, pharmaceuticals, etc.. The pump also can be used for CIP & SIP system and transport material with solid particle. This pump also has performance not found in other volumetric pumps, such as low pulse which, high pressure, Bi-directional reversible inlet/outlet and flexible function combination.

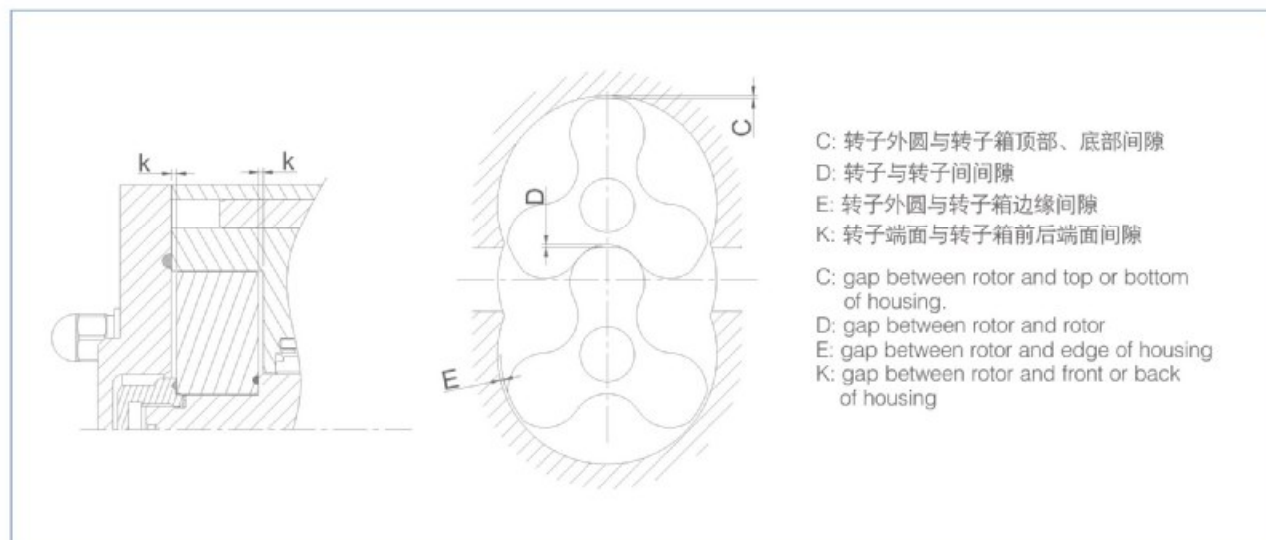


### Schematic diagram

The rotor pump is a positive displacement pump. The left cam is driven by the drive shaft and the right cam is mounted on the drive shaft and driven by the gear. The two cams rotate synchronously without interfering with each other. A certain volume of solution can be removed while the pump is operating. The figure below shows how the rotary pump works.

## 转子安装间隙表

### Lobe assembling clearence table



| SIZE        | C (mm)      | D (mm)      | E (mm)      | K (mm)      |
|-------------|-------------|-------------|-------------|-------------|
| TUL/TUR 20  | 0.25 ± 0.05 | 0.20 ± 0.05 | 0.20 ± 0.05 | 0.20 ± 0.03 |
| TUL/TUR 23  | 0.25 ± 0.05 | 0.20 ± 0.05 | 0.20 ± 0.05 | 0.20 ± 0.03 |
| TUL/TUR 25  | 0.25 ± 0.05 | 0.20 ± 0.05 | 0.20 ± 0.05 | 0.20 ± 0.03 |
| TUL/TUR 30  | 0.30 ± 0.05 | 0.30 ± 0.05 | 0.30 ± 0.05 | 0.30 ± 0.05 |
| TUL/TUR 35  | 0.30 ± 0.05 | 0.30 ± 0.05 | 0.30 ± 0.05 | 0.30 ± 0.05 |
| TUL/TUR 55  | 0.50 ± 0.05 | 0.50 ± 0.05 | 0.50 ± 0.05 | 0.30 ± 0.05 |
| TUL/TUR 60  | 0.50 ± 0.05 | 0.50 ± 0.05 | 0.50 ± 0.05 | 0.30 ± 0.05 |
| TUL/TUR 70  | 0.75 ± 0.05 | 1.0 ± 0.05  | 0.75 ± 0.05 | 0.50 ± 0.05 |
| TUL/TUR 80  | 0.75 ± 0.05 | 1.0 ± 0.05  | 0.75 ± 0.05 | 0.50 ± 0.05 |
| TUL/TUR 100 | 0.75 ± 0.05 | 1.0 ± 0.05  | 0.75 ± 0.05 | 0.50 ± 0.05 |
| TUL/TUR 125 | 0.75 ± 0.05 | 1.0 ± 0.05  | 0.75 ± 0.05 | 0.50 ± 0.05 |

注意: Notice:

- 1) 以上精度间隙范围, 是我们标准配置。
- 1) The above clearance range is our standard configuration.
- 2) 我们可以提供更高精度等级的间隙要求。
- 2) We can provide clearance requirements with higher precision levels.
- 3) 适用于不同款式的转子间隙。
- 3) Suitable for all kinds of rotors.



## 不同的转子配置 Rotor configurations



各种款式转子选择  
Various Rotor Selection

1#



### 蝶型转子(推荐) :

适用于含有颗粒介质输送, 对于颗粒破碎率较低, 有较小脉动; (推荐使用)

### Butterfly rotor (recommended):

With low particle breakage rate and small pulse, suitable for transporting material with particle; (recommended)

2#



### 三叶型转子(选型) :

适用于各种介质输送, 对于颗粒有破碎率, 相比较蝶型转子脉动现象更小。

### 3-leaves rotor (optional):

With particle breakage rate and smaller pulse than butterfly rotor, suitable for transporting all kinds of material.

3#



### 螺旋三叶转子(选型) :

适用于各种介质输送, 对于颗粒物料较小破碎率, 极小的脉动, 成本高。

### Spiral 3-leaves rotor (optional):

With low particle breakage rate, very small pulse and high cost, suitable for transporting all kinds of material.

4#



### 单蝶型转子(选型) :

适用于含有大颗粒物料输送, 对于大颗粒物料破碎率较低, 但其脉冲较大, 压力低, 容积量小。

### Single butterfly rotor (optional):

With low particle breakage rate for large particle, large pulse, low pressure and small volume, suitable for transporting material with large particle.

5#



### 二叶型转子(选型) :

适用于各种介质输送, 对于颗粒物料有破碎率, 但其脉冲较大, 压力低, 容积量小。

### 2-leaves rotor (optional):

With partial breakage rate, large pulse, low pressure and small volume, suitable for transporting all kinds of material.

6#



### 五叶转子(选型) :

适用于各种介质输送, 对于颗粒物料容易破碎, 极小的脉动, 相比较三叶转子流量更小。

### 5-leaves rotor (optional):

With high partial breakage rate, very small pulse and smaller flow, suitable for transporting all kinds of material.

7#



螺旋自吸式转子的泵，  
它具有标准的转子泵所有技术特点和功能，  
除此之外还具有较强的自吸能力达  
-0.8bar(吸程8M)。

Lobe pump with spiral self-priming rotor has all technical features and functions of a standard rotor pump, in addition to its strong self-priming capability to 0.8bar (head 8m).

### 螺旋自吸式转子

具有较强的自吸能力和输送含有颗粒、气液混合物、油品装卸、乳制品转移等。也抽取输送各种污水、污泥、牛粪、猪粪等各种复杂工况的介质。输送压力稳定，无脉冲现象，如配置变频器和流量计，可作为计量泵使用。

### Spiral self-priming rotor

With strong self-priming capability co convey gas-liquid mixture, stevedor oil, transfer dairy products, etc. It also extracts and transports all kinds of sewage, sludge, cow dung, pig dung and other complex working conditions. The conveying pressure is stable and there is no pulse phenomenon. If configure with frequency converter and flow meter, it can be used as a metering pump.

### 柔性螺旋转子材质有多种供选择

#### Flexible spiral rotor material selection

FKM= FDA 177.2600 ; 3-A-18-03; USP Class VI Chapter 88 GB 4806.11

EPDM=FDA 177.2600; 3-A-18-03 : Class II GB 4806.11

HNBR=FDA 177.2600; 3-A-18-03: Class I

### 转子每转排量数据表 data sheet for flow per rotation

| 型号/规格<br>Model/Size    | 每转排量(L/R)<br>Flow per rotation |
|------------------------|--------------------------------|
| TUL/R-25 & STUL/R-25   | 0.25                           |
| TUL/R-60 & STUL/R-60   | 0.65                           |
| TUL/R-100 & STUL/R-100 | 1.83                           |



## 典型的产品应用 Typical product application



### 食品与饮品 Food and Drink

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汤、炖肉、番茄酱、蔬菜、调味品、巧克力、脂肪和油、奶油馅料、啤酒厂、麦芽汁、软/果汁饮料、肉类加工。

Soups, Stews, Tomato Paste, Vegetables, Dressings, Chocolate, Fats & Oils, Cream Fillings, Brewery, Wort, Soft/Fruit Drinks, Meat Processing.



### 乳业 Dairy

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奶油、牛奶、奶酪凝乳和乳清、干酪、酸奶。

Cream, milk, cheese curd and whey, cottage cheese, yogurt.



### 医药/化妆品 Pharmaceutical/Cosmetics

---

药膏、糖浆、提取物、浆液、面霜和乳液、头发定型凝胶和液体、染料和醇类、肥皂、化妆品。

Pill Pastes, Syrups, Extracts, Slurries, Face Creams & Lotions, Hair Styling Gels & Liquids, Dyes & Alcohols, Soaps, Cosmetics.

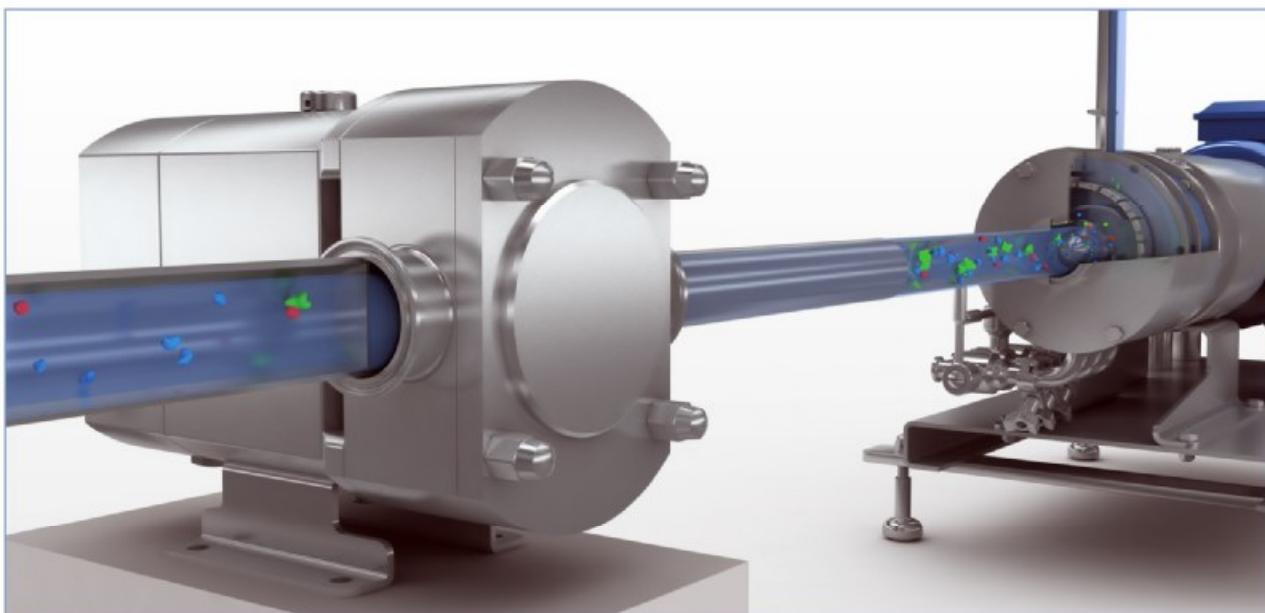


### 化工/工业 Chemical/Industrial

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溶剂、油漆、燃料、树脂、聚合物和淤泥、石油和润滑油。

Solvents, Paints, Fuels, Resins, Polymers & Sludges, Oil & Lubricants.



## 各种进出口连接方式 Inlet and outlet connection



卡箍式 Clamp



螺母式 Union nut



螺纹式 Threaded

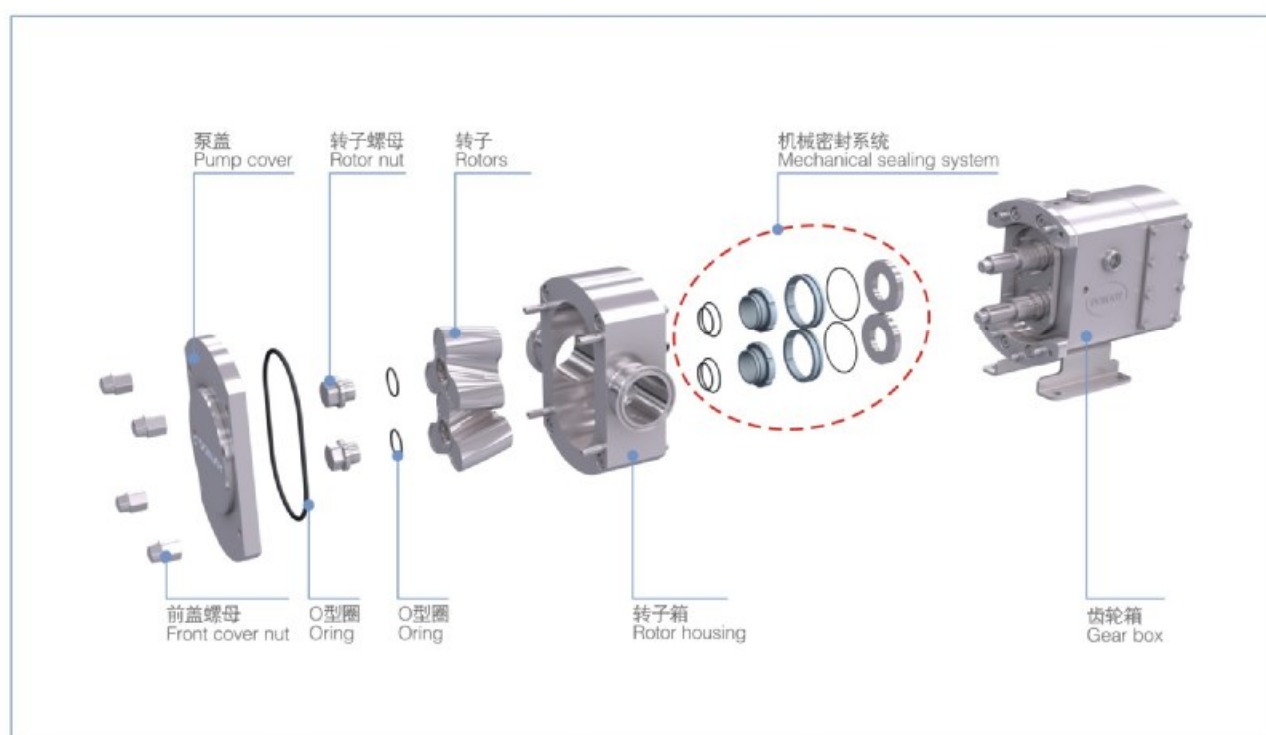
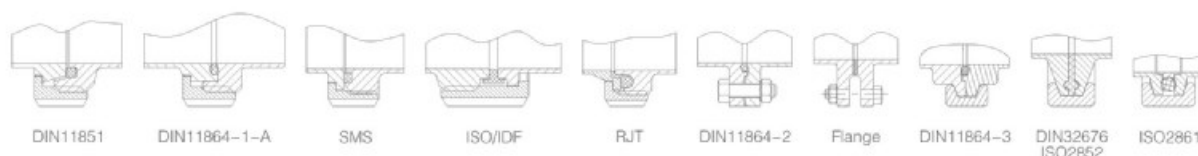


法兰式 Flange



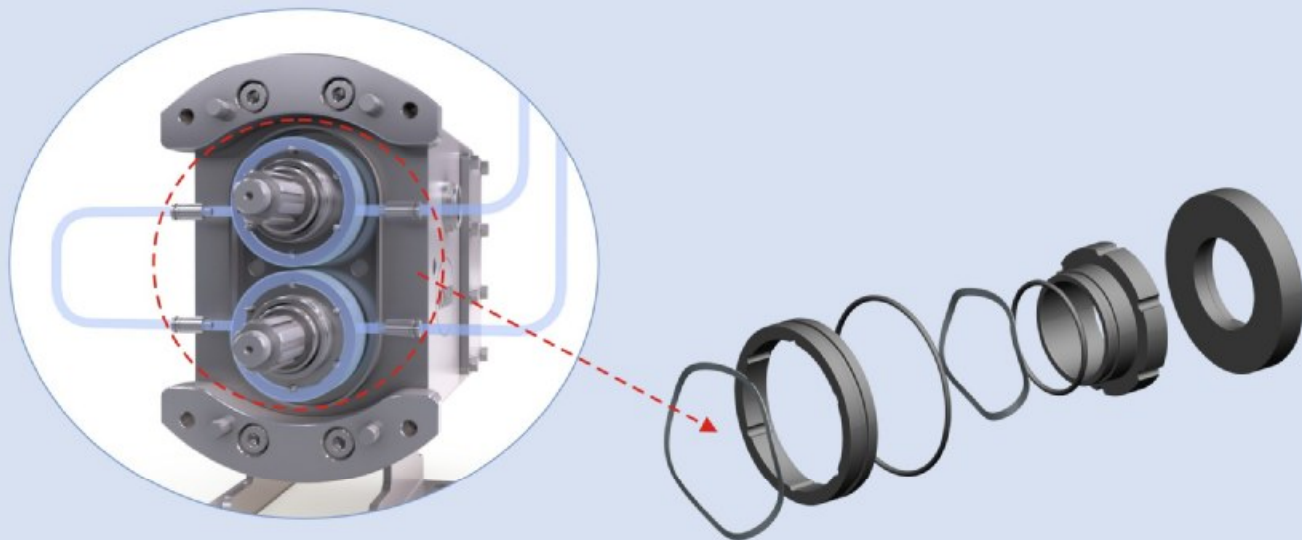
无菌法兰  
Normal flange

## 泵进口/出口连接标准 Pump inlet/outlet connection standard



# 转子泵机封设计

## Lobe pump mechanical seal design



DONJOY机封设计方案已经优化至无需专业人员、专业工具即可完成维修、维护。这样可节约成本、提高效率，且具有非常丰富的材质配置供选择。

DONJOY mechanical seal design has been optimized to complete repair and maintenance without professional person or tools. This can save costs, increase efficiency, and has lots of material configuration for selection.



### 机封配置 Mechanical Seal Configuration

- |              |                |              |
|--------------|----------------|--------------|
| 1)SIC/C/EPDM | 4)SIC/SIC/EPDM | 7)TC/TC/EPDM |
| 2)SIC/C/FKM  | 5)SIC/SIC/FKM  | 8)TC/TC/FKM  |
| 3)SIC/C/HNBR | 6)SIC/SIC/HNBR | 9)TC/TC/HNBR |

注意：以上配置适用于单机封和双机封；  
Note: The above mechanical seal material is suitable for single seal and double seal.

### 宽电压电机 Wide voltage motor

| 功率<br>Power(kw) | 电压范围<br>Voltage                                    | 功率<br>Power(kw) | 电压范围<br>Voltage                                    |
|-----------------|----------------------------------------------------|-----------------|----------------------------------------------------|
| 0.55kw          | 210V-230V/50HZ<br>360V-400V/50HZ<br>420V-460V/60HZ | 4.0-5.5kw       | 360V-400V/50HZ<br>630V-690V/50HZ<br>420V-460V/60HZ |
| 0.75kw          |                                                    | 7.5-11kw        |                                                    |
| 1.1-1.5kw       |                                                    | 15-18.5kw       |                                                    |
| 2.2-3.0kw       |                                                    | 22-30kw         |                                                    |

注意：电机采用IEC EN IE2 能效等级，PTC热敏电阻。(相当于中国二级能效)  
Note: The motor adopts IEC EN IE2 energy efficiency class, PTC thermistor. (Corresponding to China two energy efficiency)  
注意：其他电机功率、电压、频率等，请联系东正。  
Note: Other motor power, voltage, frequency, etc., please contact DONJOY

## 转子泵选型表

### Lobe pump selection table



TU & STU 系列转子泵，相关参数选型表  
TU & STU series lobe pump, parameter selection table

| 型号/规格<br>Model | 转子泵<br>进出口尺寸<br>Inlet/Outlet | 最大压力<br>Max pressure<br>(bar) | 最高转速<br>每分钟<br>Max speed<br>per minute | 建议转速范围<br>每分钟<br>Suggested<br>speed range<br>per minute | 每转排量<br>Flow per<br>revolution<br>(L/R)                                                   | 最大流量<br>Max flow<br>(m³/h) | 建议转速范围<br>流量-每小时<br>Suggested<br>Flow (m³/h) |                                                                                             | 每转排量<br>Flow per<br>revolution<br>(L/R) | 最大流量<br>Max flow<br>(m³/h) | 建议转速范围<br>流量-每小时<br>Suggested<br>Flow (m³/h) |      |
|----------------|------------------------------|-------------------------------|----------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------|----------------------------------------------|------|
|                |                              |                               |                                        |                                                         | 1#<br> |                            |                                              | 2#<br> |                                         |                            |                                              |      |
| TUL/TUR-20     | 1"-DN25                      | 15                            | 700                                    | 50-450                                                  | 0.12                                                                                      | 5.0                        | 0.36                                         | 3.2                                                                                         | 0.11                                    | 4.6                        | 0.33                                         | 2.9  |
| TUL/TUR-23     | 1.5"-DN40                    | 15                            | 700                                    | 50-450                                                  | 0.17                                                                                      | 7.1                        | 0.50                                         | 4.5                                                                                         | 0.15                                    | 6.5                        | 0.46                                         | 4.2  |
| TUL/TUR-25     | 2"-DN50                      | 15                            | 700                                    | 50-450                                                  | 0.24                                                                                      | 10.1                       | 0.72                                         | 6.5                                                                                         | 0.22                                    | 9.1                        | 0.65                                         | 5.8  |
| TUL/TUR-30     | 2"-DN50                      | 15                            | 700                                    | 50-400                                                  | 0.39                                                                                      | 16.4                       | 1.17                                         | 9.4                                                                                         | 0.34                                    | 14.1                       | 1.01                                         | 8.1  |
| TUL/TUR-35     | 2.5"                         | 12                            | 700                                    | 50-400                                                  | 0.49                                                                                      | 20.5                       | 1.47                                         | 11.7                                                                                        | 0.42                                    | 17.7                       | 1.26                                         | 10.1 |
| TUL/TUR-55     | DN65                         | 12                            | 500                                    | 50-350                                                  | 0.55                                                                                      | 16.5                       | 1.65                                         | 11.5                                                                                        | 0.48                                    | 14.3                       | 1.43                                         | 10.0 |
| TUL/TUR-60     | 3"                           | 10                            | 500                                    | 50-350                                                  | 0.61                                                                                      | 18.2                       | 1.82                                         | 12.7                                                                                        | 0.53                                    | 15.8                       | 1.58                                         | 11.1 |
| TUL/TUR-70     | 3"                           | 15                            | 500                                    | 50-350                                                  | 1.41                                                                                      | 42.4                       | 4.24                                         | 29.7                                                                                        | 1.21                                    | 36.3                       | 3.63                                         | 25.4 |
| TUL/TUR-80     | DN80                         | 15                            | 500                                    | 50-350                                                  | 1.41                                                                                      | 42.4                       | 4.24                                         | 29.7                                                                                        | 1.21                                    | 36.3                       | 3.63                                         | 25.4 |
| TUL/TUR-100    | 4"-DN100                     | 10                            | 500                                    | 50-350                                                  | 1.81                                                                                      | 54.4                       | 5.44                                         | 38.1                                                                                        | 1.55                                    | 46.5                       | 4.65                                         | 32.6 |
| TUL/TUR-125    | 5"-DN125                     | 10                            | 500                                    | 50-350                                                  | 2.30                                                                                      | 69.1                       | 6.91                                         | 48.3                                                                                        | 1.97                                    | 59.1                       | 5.91                                         | 41.3 |

## 转子泵选型表

## Lobe pump selection table



TU & STU 系列转子泵，相关参数选型表

TU & STU series lobe pump, parameter selection table

| 型号/规格<br>Model | 转子泵<br>进出口尺寸<br>Inlet/Outlet | 最大压力<br>Max pressure<br>(bar) | 最高转速<br>每分钟<br>Max speed<br>per minute | 建议转速范围<br>每分钟<br>Suggested<br>speed range<br>per minute | 每转排量<br>Flow per<br>revolution<br>(L/R)                                                   | 最大流量<br>Max flow<br>(m³/h) | 建议转速范围<br>流量-每小时<br>Suggested<br>Flow (m³/h) |                                                                                             | 每转排量<br>Flow per<br>revolution<br>(L/R) | 最大流量<br>Max flow<br>(m³/h) | 建议转速范围<br>流量-每小时<br>Suggested<br>Flow (m³/h) |      |
|----------------|------------------------------|-------------------------------|----------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------|----------------------------------------------|------|
|                |                              |                               |                                        |                                                         | 4#<br> |                            |                                              | 5#<br> |                                         |                            |                                              |      |
| TUL/TUR-20     | 1"-DN25                      | 15                            | 700                                    | 50-450                                                  | 0.11                                                                                      | 4.7                        | 0.33                                         | 3.0                                                                                         | 0.11                                    | 4.6                        | 0.33                                         | 2.9  |
| TUL/TUR-23     | 1.5"-DN40                    | 15                            | 700                                    | 50-450                                                  | 0.16                                                                                      | 6.6                        | 0.47                                         | 4.2                                                                                         | 0.15                                    | 6.4                        | 0.46                                         | 4.1  |
| TUL/TUR-25     | 2"-DN50                      | 15                            | 700                                    | 50-450                                                  | 0.22                                                                                      | 9.2                        | 0.66                                         | 5.9                                                                                         | 0.22                                    | 9.0                        | 0.65                                         | 5.8  |
| TUL/TUR-30     | 2"-DN50                      | 15                            | 700                                    | 50-400                                                  | 0.34                                                                                      | 14.4                       | 1.03                                         | 8.2                                                                                         | 0.33                                    | 14.0                       | 1.00                                         | 8.0  |
| TUL/TUR-35     | 2.5"                         | 12                            | 700                                    | 50-400                                                  | 0.43                                                                                      | 18.1                       | 1.29                                         | 10.3                                                                                        | 0.42                                    | 17.6                       | 1.25                                         | 10.0 |
| TUL/TUR-55     | DN65                         | 12                            | 500                                    | 50-350                                                  | 0.49                                                                                      | 14.6                       | 1.46                                         | 10.2                                                                                        | 0.47                                    | 14.2                       | 1.42                                         | 10.0 |
| TUL/TUR-60     | 3"                           | 10                            | 500                                    | 50-350                                                  | 0.54                                                                                      | 16.1                       | 1.61                                         | 11.3                                                                                        | 0.52                                    | 15.7                       | 1.57                                         | 11.0 |
| TUL/TUR-70     | 3"                           | 15                            | 500                                    | 50-350                                                  | 1.29                                                                                      | 38.6                       | 3.86                                         | 27.0                                                                                        | 1.21                                    | 36.2                       | 3.62                                         | 25.3 |
| TUL/TUR-80     | DN80                         | 15                            | 500                                    | 50-350                                                  | 1.29                                                                                      | 38.6                       | 3.86                                         | 27.0                                                                                        | 1.21                                    | 36.2                       | 3.62                                         | 25.3 |
| TUL/TUR-100    | 4"-DN100                     | 10                            | 500                                    | 50-350                                                  | 1.65                                                                                      | 49.5                       | 4.95                                         | 34.7                                                                                        | 1.55                                    | 46.4                       | 4.64                                         | 32.5 |
| TUL/TUR-125    | 5"-DN125                     | 10                            | 500                                    | 50-350                                                  | 2.10                                                                                      | 62.9                       | 6.29                                         | 44.0                                                                                        | 1.96                                    | 58.9                       | 5.89                                         | 41.2 |



**TU & STU 系列转子泵，相关参数选型表**  
**TU & STU series lobe pump, parameter selection table**

| 型号/规格<br>Model | 转子泵<br>进出口尺寸<br>Inlet/Outlet | 最大压力<br>Max pressure<br>(bar) | 最高转速<br>每分钟<br>Max speed<br>per minute | 建议转速范围<br>每分钟<br>Suggested<br>speed range<br>per minute | 每转排量<br>Flow per<br>revolution<br>(L/R) | 最大流量<br>Max flow<br>(m³/h)                                                          | 建议转速范围<br>流量-每小时<br>Suggested<br>Flow (m³/h) |      | 每转排量<br>Flow per<br>revolution<br>(L/R) | 最大流量<br>Max flow<br>(m³/h)                                                            | 建议转速范围<br>流量-每小时<br>Suggested<br>Flow (m³/h) |      |
|----------------|------------------------------|-------------------------------|----------------------------------------|---------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------|------|-----------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------|------|
|                |                              |                               |                                        |                                                         | 3#/7#                                   |  |                                              |      | 6#                                      |  |                                              |      |
| TUL/TUR-20     | 1"-DN25                      | 15                            | 700                                    | 50-450                                                  | 0.11                                    | 4.6                                                                                 | 0.33                                         | 2.9  | 0.12                                    | 4.8                                                                                   | 0.35                                         | 0.31 |
| TUL/TUR-23     | 1.5"-DN40                    | 15                            | 700                                    | 50-450                                                  | 0.15                                    | 6.5                                                                                 | 0.46                                         | 4.2  | 0.16                                    | 6.8                                                                                   | 0.49                                         | 4.4  |
| TUL/TUR-25     | 2"-DN50                      | 15                            | 700                                    | 50-450                                                  | 0.22                                    | 9.1                                                                                 | 0.65                                         | 5.8  | 0.23                                    | 9.6                                                                                   | 0.68                                         | 6.2  |
| TUL/TUR-30     | 2"-DN50                      | 15                            | 700                                    | 50-400                                                  | 0.34                                    | 14.1                                                                                | 1.01                                         | 8.1  | 0.35                                    | 14.9                                                                                  | 1.06                                         | 8.5  |
| TUL/TUR-35     | 2.5"                         | 12                            | 700                                    | 50-400                                                  | 0.42                                    | 17.7                                                                                | 1.26                                         | 10.1 | 0.44                                    | 18.6                                                                                  | 1.33                                         | 10.7 |
| TUL/TUR-55     | DN65                         | 12                            | 500                                    | 50-350                                                  | 0.48                                    | 14.3                                                                                | 1.43                                         | 10.0 | 0.50                                    | 15.1                                                                                  | 1.51                                         | 10.6 |
| TUL/TUR-60     | 3"                           | 10                            | 500                                    | 50-350                                                  | 0.53                                    | 15.8                                                                                | 1.58                                         | 11.1 | 0.56                                    | 16.7                                                                                  | 1.67                                         | 11.7 |
| TUL/TUR-70     | 3"                           | 15                            | 500                                    | 50-350                                                  | 1.21                                    | 36.3                                                                                | 3.63                                         | 25.4 | 1.27                                    | 38.0                                                                                  | 3.80                                         | 26.6 |
| TUL/TUR-80     | DN80                         | 15                            | 500                                    | 50-350                                                  | 1.21                                    | 36.3                                                                                | 3.63                                         | 25.4 | 1.27                                    | 38.0                                                                                  | 3.80                                         | 26.6 |
| TUL/TUR-100    | 4"-DN100                     | 10                            | 500                                    | 50-350                                                  | 1.55                                    | 46.5                                                                                | 4.65                                         | 32.6 | 1.62                                    | 48.7                                                                                  | 4.87                                         | 34.1 |
| TUL/TUR-125    | 5"-DN125                     | 10                            | 500                                    | 50-350                                                  | 1.97                                    | 59.1                                                                                | 5.91                                         | 41.3 | 2.06                                    | 61.9                                                                                  | 6.19                                         | 43.3 |

## 转子泵选型表(机械无极调速)

## Lobe pump selection table (mechanical stepless speed regulation)



### 机械无极调速转子泵

### Mechanical Stepless Speed Regulating Lobe Pump

机械无极减速机配备有标准电机，机械摩擦式无极调节器，通过旋转手轮即可改变输出转速，达到控制转速和流量的目的。

The mechanical stepless speed reducer is equipped with standard motor and mechanical friction type stepless regulator. The output speed can be changed by rotating the handwheel to control and regulate the pump flow.



注意：该数据是基于蝶式转子排量的结果。

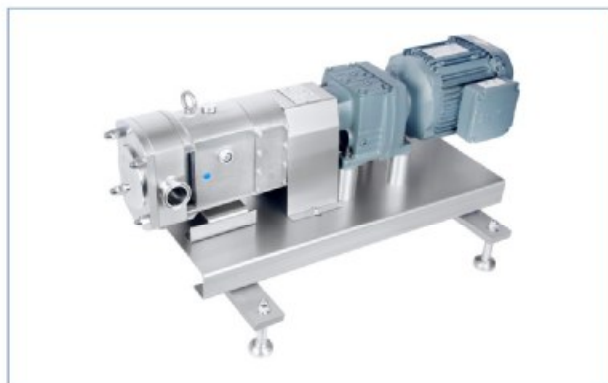
Note: This data is based on the results of the butterfly rotor displacement.

| 型号/规格<br>Model | 转子泵<br>进出口尺寸<br>Inlet/Outlet<br>(卡箍螺纹) | 最大压力<br>Max pressure<br>(bar) | 电机功率<br>Motor power<br>(kw) | 建议转速<br>每分钟<br>Suggested speed<br>per minute | 每转排量<br>Flow per<br>revolution<br>(L/R) | 流量(m³/h)                               |      | 重量<br>Weight<br>(kg) |
|----------------|----------------------------------------|-------------------------------|-----------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------|------|----------------------|
|                |                                        |                               |                             |                                              |                                         | 建议-转速范围-流量                             |      |                      |
|                |                                        |                               |                             |                                              |                                         | Flow(m³/h)according to suggested speed |      |                      |
| TUL/TUR-20     | 1"-DN25                                | 15                            | 2.2KW                       | 200-450                                      | 0.12                                    | 1.5                                    | 3.2  | 106                  |
|                |                                        | 12                            | 1.5KW                       |                                              |                                         |                                        |      | 79                   |
|                |                                        | 9                             | 1.1KW                       |                                              |                                         |                                        |      | 73                   |
|                |                                        | 5                             | 0.75KW                      |                                              |                                         |                                        |      | 72                   |
| TUL/TUR-23     | 1.5"-DN40                              | 15                            | 4.0KW                       | 200-450                                      | 0.17                                    | 2.0                                    | 4.5  | 125                  |
|                |                                        | 12                            | 3.0KW                       |                                              |                                         |                                        |      | 121                  |
|                |                                        | 9                             | 2.2KW                       |                                              |                                         |                                        |      | 107                  |
|                |                                        | 5                             | 1.5KW                       |                                              |                                         |                                        |      | 80                   |
| TUL/TUR-25     | 2"-DN50                                | 12                            | 5.5KW                       | 200-450                                      | 0.24                                    | 2.9                                    | 6.4  | 186                  |
|                |                                        | 10                            | 4.0KW                       |                                              |                                         |                                        |      | 126                  |
|                |                                        | 7                             | 3.0KW                       |                                              |                                         |                                        |      | 122                  |
|                |                                        | 4                             | 2.2KW                       |                                              |                                         |                                        |      | 108                  |
| TUL/TUR-30     | 2"-DN50                                | 15                            | 7.5KW                       | 200-400                                      | 0.39                                    | 4.6                                    | 9.3  | 219                  |
|                |                                        | 12                            | 5.5KW                       |                                              |                                         |                                        |      | 210                  |
|                |                                        | 8                             | 4.0KW                       |                                              |                                         |                                        |      | 150                  |
|                |                                        | 4                             | 3.0KW                       |                                              |                                         |                                        |      | 146                  |
| TUL/TUR-35     | 2.5"                                   | 12                            | 7.5KW                       | 200-400                                      | 0.49                                    | 5.9                                    | 11.7 | 221                  |
|                |                                        | 10                            | 5.5KW                       |                                              |                                         |                                        |      | 212                  |
|                |                                        | 7                             | 4.0KW                       |                                              |                                         |                                        |      | 152                  |
|                |                                        | 3                             | 3.0KW                       |                                              |                                         |                                        |      | 148                  |
| TUL/TUR-55     | DN65                                   | 12                            | 7.5KW                       | 200-400                                      | 0.55                                    | 6.6                                    | 13.2 | 222                  |
|                |                                        | 9                             | 5.5KW                       |                                              |                                         |                                        |      | 213                  |
|                |                                        | 6                             | 4.0KW                       |                                              |                                         |                                        |      | 153                  |
|                |                                        | 3                             | 3.0KW                       |                                              |                                         |                                        |      | 149                  |
| TUL/TUR-60     | 3"                                     | 10                            | 7.5KW                       | 200-400                                      | 0.61                                    | 7.3                                    | 14.5 | 224                  |
|                |                                        | 7                             | 5.5KW                       |                                              |                                         |                                        |      | 215                  |
|                |                                        | 5                             | 4.0KW                       |                                              |                                         |                                        |      | 155                  |
|                |                                        | 3                             | 3.0KW                       |                                              |                                         |                                        |      | 151                  |
| TUL/TUR-70     | 3"                                     | 9                             | 7.5KW                       | 200-400                                      | 1.41                                    | 17.0                                   | 33.9 | 304                  |
|                |                                        | 5                             | 5.5KW                       |                                              |                                         |                                        |      | 295                  |
| TUL/TUR-80     | DN80                                   | 7                             | 7.5KW                       | 200-400                                      | 1.41                                    | 17.0                                   | 33.9 | 304                  |
|                |                                        | 4                             | 5.5KW                       |                                              |                                         |                                        |      | 295                  |
| TUL/TUR-100    | 4"-DN100                               | 5                             | 7.5KW                       | 200-400                                      | 1.81                                    | 21.8                                   | 44.5 | 310                  |

注：以上进出口适用于卡箍式、螺纹式、法兰式，通用标准SMS/DIN/RJT/IDF。Notes: above inlet/outlet apply to SMS/DIN/RJT/IDF clamped, threaded and flanged

## 转子泵选型表(变频调速/定速比输出)

## Lobe pump selection table (frequency control / fixed speed ratio output)



### 可变频调速输出转子泵

### Variable Frequency Speed Adjustment Output Lobe Pump

可变频输出减速机, 有两种功能应用。

1) 定速比输出, 转速不可调, 选择时一定要注意转速选择。

2) 变频调速输出, 转速可通过变频器调节, 但必须配置变频器, 反之转速不可调。

For variable frequency output reducer, there are two functional application.

1) Fixed speed ratio output, speed is not adjustable, must pay attention to speed when selecting.

2) Variable frequency speed adjustment output, speed can be adjusted by frequency converter. Should be configured with frequency converter, otherwise the speed will not be adjustable.



注意: 该数据是基于蝶式转子排量的结果。

Note: This data is based on the results of the butterfly rotor displacement.

| 型号/规格<br>Model | 转子泵<br>进出口尺寸<br>Inlet/Outlet | 最大压力<br>Max pressure<br>(bar) | 电机功率<br>Motor power<br>(kw) | 建议转速<br>每分钟<br>Suggested<br>speed per minute | 每转排量<br>Flow per<br>revolution<br>(L/R) | 流量(m³/h)                               |      | 重量<br>Weight<br>(kg) |
|----------------|------------------------------|-------------------------------|-----------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------|------|----------------------|
|                |                              |                               |                             |                                              |                                         | 建议-转速范围-流量                             |      |                      |
|                |                              |                               |                             |                                              |                                         | Flow(m³/h)according to suggested speed |      |                      |
| TUL/TUR-20     | 1"-DN25                      | 15                            | 2.2KW                       | 50-450                                       | 0.12                                    | 0.36                                   | 3.3  | 94.2                 |
|                |                              | 12                            | 1.5KW                       |                                              |                                         |                                        |      | 86.2                 |
|                |                              | 9                             | 1.1KW                       |                                              |                                         |                                        |      | 77.2                 |
|                |                              | 5                             | 0.75KW                      |                                              |                                         |                                        |      | 66.2                 |
| TUL/TUR-23     | 1.5"-DN40                    | 15                            | 3.0KW                       | 50-450                                       | 0.17                                    | 0.51                                   | 4.6  | 99.5                 |
|                |                              | 12                            | 2.2KW                       |                                              |                                         |                                        |      | 95.5                 |
|                |                              | 9                             | 1.5KW                       |                                              |                                         |                                        |      | 87.5                 |
|                |                              | 5                             | 1.1KW                       |                                              |                                         |                                        |      | 78.5                 |
| TUL/TUR-25     | 2"-DN50                      | 15                            | 5.5KW                       | 50-450                                       | 0.24                                    | 0.72                                   | 6.5  | 156.4                |
|                |                              | 10                            | 4.0KW                       |                                              |                                         |                                        |      | 113.2                |
|                |                              | 7                             | 3.0KW                       |                                              |                                         |                                        |      | 100.2                |
|                |                              | 4                             | 2.2KW                       |                                              |                                         |                                        |      | 96.2                 |
| TUL/TUR-30     | 2"-DN50                      | 15                            | 7.5KW                       | 50-400                                       | 0.39                                    | 1.16                                   | 9.3  | 193.4                |
|                |                              | 12                            | 5.5KW                       |                                              |                                         |                                        |      | 180.4                |
|                |                              | 8                             | 4.0KW                       |                                              |                                         |                                        |      | 137.2                |
|                |                              | 4                             | 3.0KW                       |                                              |                                         |                                        |      | 124.2                |
| TUL/TUR-35     | 2.5"                         | 12                            | 7.5KW                       | 50-400                                       | 0.48                                    | 1.45                                   | 11.6 | 195.2                |
|                |                              | 10                            | 5.5KW                       |                                              |                                         |                                        |      | 182.2                |
|                |                              | 7                             | 4.0KW                       |                                              |                                         |                                        |      | 139                  |
|                |                              | 3                             | 3.0KW                       |                                              |                                         |                                        |      | 126                  |
| TUL/TUR-55     | DN65                         | 12                            | 7.5KW                       | 50-350                                       | 0.55                                    | 1.65                                   | 11.5 | 196.4                |
|                |                              | 9                             | 5.5KW                       |                                              |                                         |                                        |      | 183.4                |
|                |                              | 6                             | 4.0KW                       |                                              |                                         |                                        |      | 140.2                |
|                |                              | 3                             | 3.0KW                       |                                              |                                         |                                        |      | 127.2                |
| TUL/TUR-60     | 3"                           | 10                            | 7.5KW                       | 50-350                                       | 0.61                                    | 1.82                                   | 12.7 | 197.9                |
|                |                              | 7                             | 5.5KW                       |                                              |                                         |                                        |      | 184.9                |
|                |                              | 5                             | 4.0KW                       |                                              |                                         |                                        |      | 141.7                |
|                |                              | 3                             | 3.0KW                       |                                              |                                         |                                        |      | 128.7                |
| TUL/TUR-70     | 3"                           | 15                            | 15KW                        | 50-350                                       | 1.414                                   | 4.24                                   | 29.7 | 446.8                |
|                |                              | 12                            | 11KW                        |                                              |                                         |                                        |      | 427.8                |
|                |                              | 9                             | 7.5KW                       |                                              |                                         |                                        |      | 278.1                |
|                |                              | 5                             | 5.5KW                       |                                              |                                         |                                        |      | 265.1                |
| TUL/TUR-80     | DN80                         | 15                            | 15KW                        | 50-350                                       | 1.414                                   | 4.24                                   | 29.7 | 446.8                |
|                |                              | 10                            | 11KW                        |                                              |                                         |                                        |      | 427.8                |
|                |                              | 7                             | 7.5KW                       |                                              |                                         |                                        |      | 278.1                |
|                |                              | 4                             | 5.5KW                       |                                              |                                         |                                        |      | 265.1                |
| TUL/TUR-100    | 4"-DN100                     | 12                            | 15KW                        | 50-350                                       | 1.813                                   | 5.4                                    | 38.1 | 453.3                |
|                |                              | 10                            | 11KW                        |                                              |                                         |                                        |      | 434.3                |
|                |                              | 6                             | 7.5KW                       |                                              |                                         |                                        |      | 284.6                |
|                |                              | 3                             | 5.5KW                       |                                              |                                         |                                        |      | 271.6                |
| TUL/TUR-125    | 5"-DN125                     | 12                            | 18.5KW                      | 50-350                                       | 2.302                                   | 6.9                                    | 48.3 | 476.4                |
|                |                              | 10                            | 15KW                        |                                              |                                         |                                        |      | 461.4                |
|                |                              | 7                             | 11KW                        |                                              |                                         |                                        |      | 442.4                |
|                |                              | 4                             | 7.5KW                       |                                              |                                         |                                        |      | 292.7                |

注: 以上进出口适用于卡箍式、螺纹式、法兰式, 适用标准SMS/DIN/RJT/IDF。Notes: above inlet/outlet apply to SMS/DIN/RJT/IDF clamped, threaded and flanged