

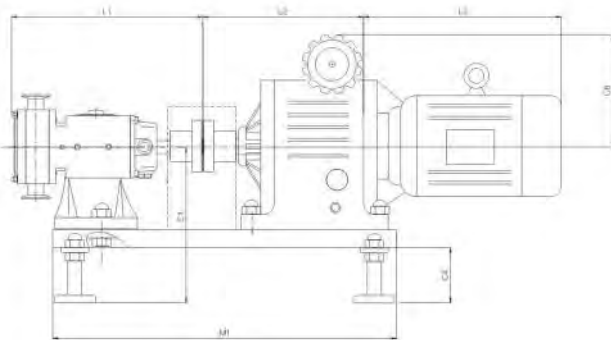
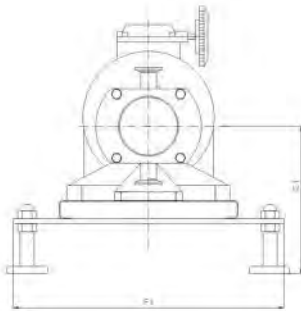
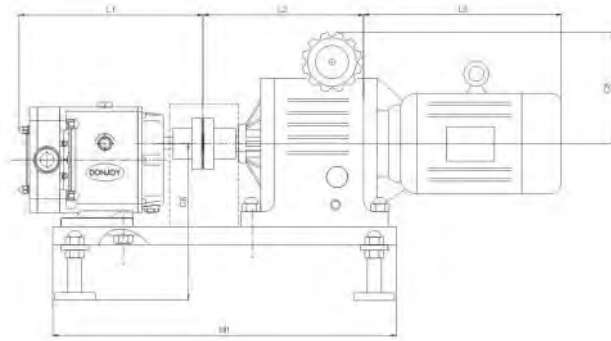
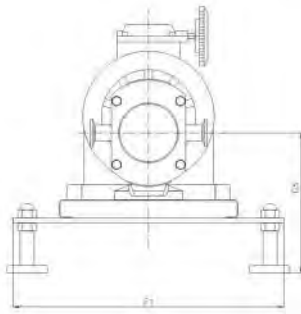
# 机械无极调速转子泵 Mechanical stepless speed LOBE PUMPS

手动调节转速流量可调节

注意：该减速机最大功率7.5KW

Manually speed regulation, but also can change flow

Maximum power 7.5KW



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系列 Series	L1	C1	C4	C5	C6	M1	F1
TUL/TUR-20	296	296.5	102	275	305	680	475
TUL/TUR-23	300.5	296.5	102	275	305	680	475
TUL/TUR-25	310	296.5	102	275	305	680	475
TUL/TUR-30	417.5	331.5	102	301	338.5	780	555
TUL/TUR-35	423.5	331.5	102	301	338.5	780	555
TUL/TUR-55	428.5	331.5	102	301	338.5	780	555
TUL/TUR-60	432.5	331.5	102	301	338.5	780	555
TUL/TUR-70	510.5	390.5	102	376	436	950	625
TUL/TUR-80	510.5	390.5	102	376	436	950	625
TUL/TUR-100	519.5	390.5	102	376	436	950	625
TUL/TUR-125	533.5	390.5	102	376	436	950	625

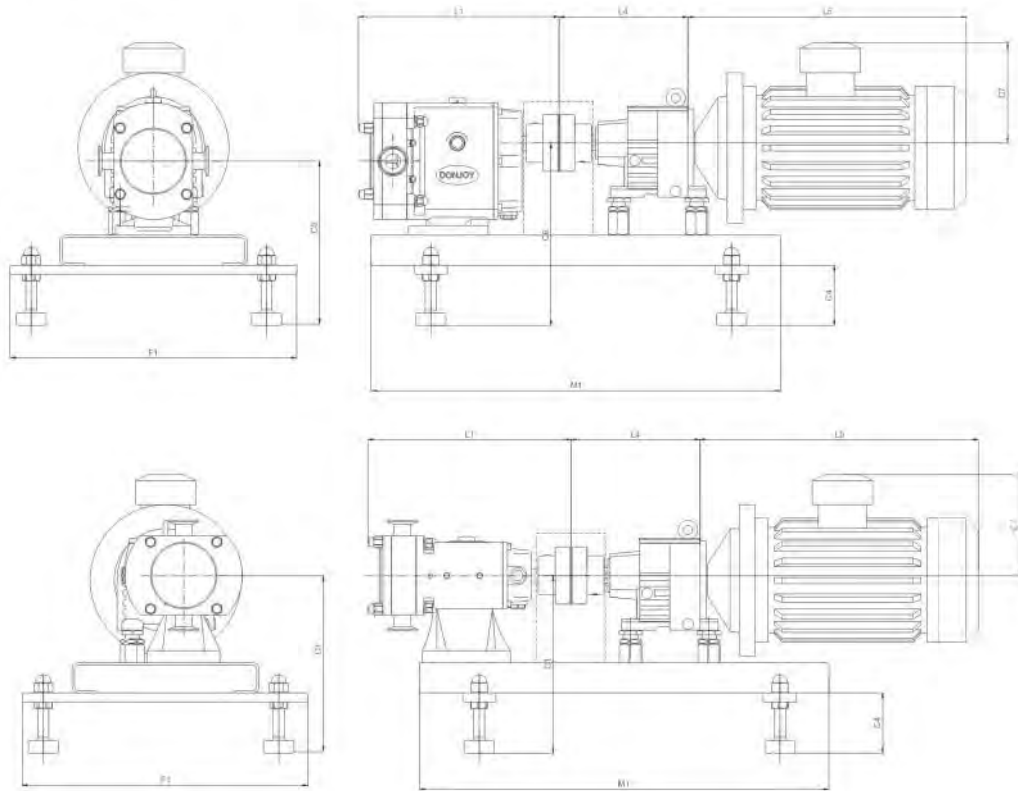
系列 Series	L2	L3	C8
075kw	223	285	176
1.1kw	223	285	176
1.5kw	223	285	176
2.2kw	268	320	205
30.kw	268	340	205
4.0kw	268	340	205
5.5kw	319	395	247
7.5kw	319	435	247
11kw	-	-	-
15kw	-	-	-

注意：如需配置以上减速机 and 电机请参考：电机=L5,减速机长度=L4,电机中心高度=C8



# 变频调速/定速比输出转子泵 Frequency control/Fixed speed ratio output LOBE pumps

(1)配置变频器，转速可变流量可变 (2)定速比输出，转速是一定，流量不可变  
(1)Configure the frequency converter variable speed, variable flow (2)Fixed speed ratio output, speed is constant, flow is immutable



系列 Series	L1	C1	C4	C5	C6	M1	F1
TUL/TUR-20	296	296.5	102	275	305	680	475
TUL/TUR-23	300.5	296.5	102	275	305	680	475
TUL/TUR-25	310	296.5	102	275	305	680	475
TUL/TUR-30	417.5	331.5	102	301	338.5	780	555
TUL/TUR-35	423.5	331.5	102	301	338.5	780	555
TUL/TUR-55	428.5	331.5	102	301	338.5	780	555
TUL/TUR-60	432.5	331.5	102	301	338.5	780	555
TUL/TUR-70	510.5	390.5	102	376	436	950	625
TUL/TUR-80	510.5	390.5	102	376	436	950	625
TUL/TUR-100	519.5	390.5	102	376	436	950	625
TUL/TUR-125	533.5	390.5	102	376	436	950	625

规格	L4	L5	C7
075kw	201	245	128
1.1kw	201	260	118
1.5kw	201	285	118
2.2kw	201	320	178
30.kw	201	320	178
4.0kw	241	335	177.5
5.5kw	241	385	199.5
7.5kw	280	425	205
11kw	440	490	250.5
15kw	440	535	250.5

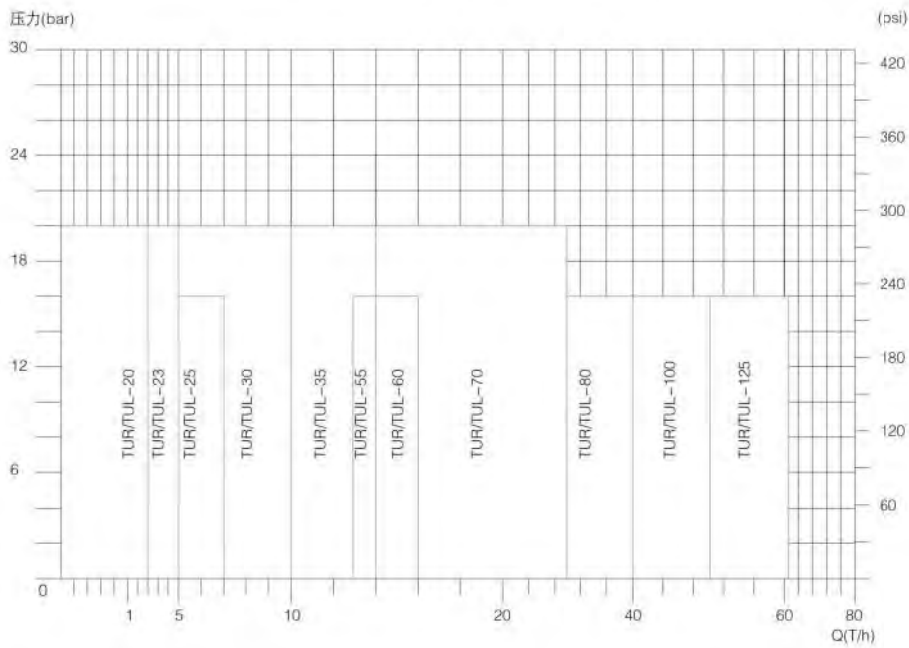
注意：如需配置以上减速机 and 电机请参照：电机=L5,减速机长度=L4,电机中心高度=C7



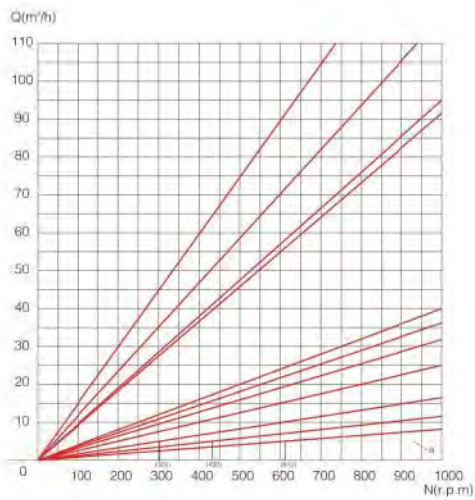
# 卫生凸轮泵(转子泵) Hygienic lobe pump(rotor pump)

## 转子泵特性曲线图 Hygienic lobe pump performance curve

TUR/TUL转子流量Q(T/h)-压力(bar)曲线图  
TUR/TUL pump Q(T/h)-speed(bar)

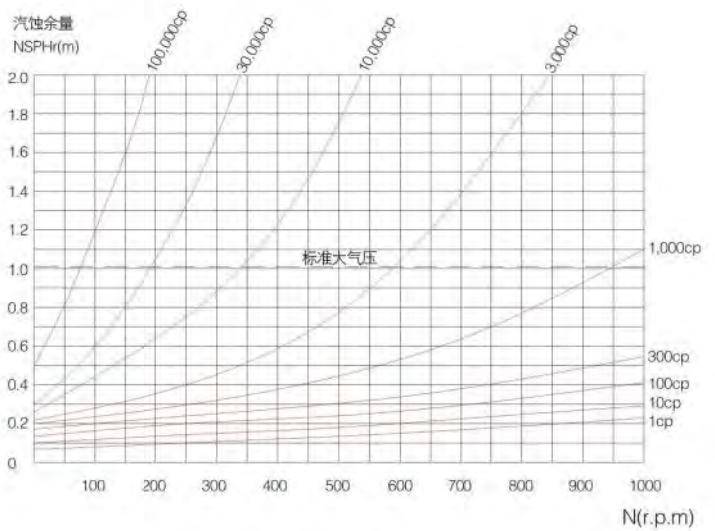


TUR/TUL转子泵流量Q(T/h)-转速(r.p.m)曲线图(DWG.01)  
TUR/TUL flow rate Q(T/h)-speed(r.p.m) cure figure (DWG.01)



说明: 流量计算公式 $Q=0.06K \cdot N$ , 其中Q: 流量(T/h), K: 排量系数(L/转), N: 转速--200-1000(r.p.m)

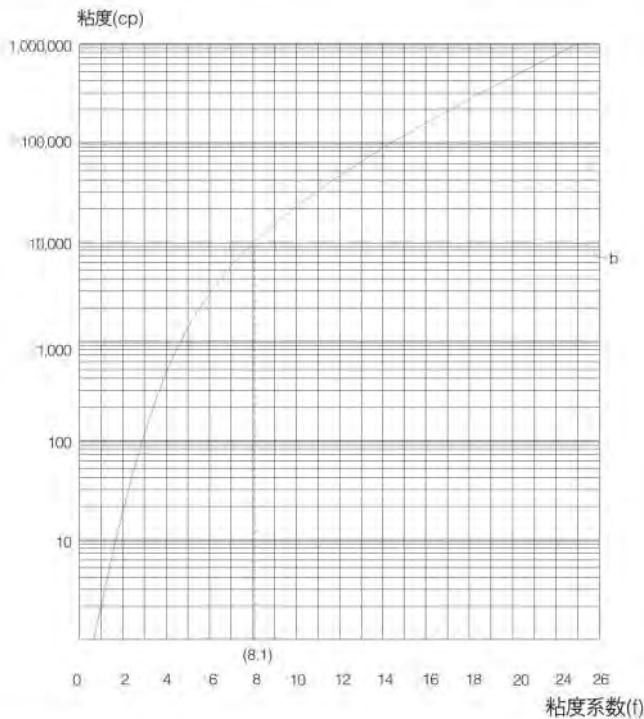
TUR/TUL转子泵汽蚀余量NPSHr(M)-转速(r.p.m)曲线图(DWG.02)  
TUR/TUL pump NPSHr(M)-speed(r.p.m)cure figure(DWG.02)



# 卫生凸轮泵(转子泵)

## Hygienic lobe pump(rotor pump)

TUR/TUL转子泵粘度(cp)与粘度系数f曲线图(DWG.03)  
TUR/TUL lobe pump viscosity(cp)and viscosity factor f curve figure (DWG.03)



机械密封功率系数(Tab.01)

密封类型	密封材料	功率系数s
单机封	SIC/SIC	0.5
双机封	SIC/SIC	1

电机功率按下面公式计算:

Motor power in the following formula:  
 $P=(Q*H/18.5+f+s)*N$

叶轮驱动扭力按下面公式计算:

Impeller drive torque in the following formula:  
 $M=P*9.56/N$

P=功率power (W)

H=出口压力Outlet pressure (Bar)

f=粘度功率系数Viscosity power coefficient

(查图 Check chart DWG.03)

S=机械密封功率系数Mechanical seal power coefficient

(查表 Check chart Tab.01)

N=叶轮转速Impeller speed(r.p.m)

M=扭力 torsion (N.M)

### 选型举例:

最大流量5T出口压力10bar,粘度10,000cp,如何选择转子泵选择步骤如下:

1.预选转速,图DWG01,画5T---虚线a与斜线相交的转速为:

$$N_{-20}=610 \text{ r.p.m}$$

$$N_{-23}=430 \text{ r.p.m}$$

$$N_{-25}=305 \text{ r.p.m}$$

2.确定粘度系数,图DWG03,画粘度10,000cp---虚线b与曲线相交,得粘度系数为:

$$f=8.1$$

3.确定机械密封功率系数单机封,密封材料SIC/SIC

$$s=0.5$$

4.计算功率

根据公式 $P=(Q*H/18.5+f+s)*N$ 得:

$$P_{-20}=(5*10/18.5+8.1+0.5)*610=6.894\text{kw}$$

$$P_{-23}=(5*10/18.5+8.1+0.5)*430=4.860\text{kw}$$

$$P_{-25}=(5*10/18.5+8.1+0.5)*305=3.447\text{kw}$$

5.确定型号

根据手册型号表

TUL/TUR-25 3-7T1bar/4.0kw可满足参数要求

### Type lift column:

Maximum flow 5 T outlet pressure 10bar, viscosity 10,000 cp, how to choose rotor pump Choose steps are as follows:

1.The primary speed, figure DWG01, draw 5 T – dotted line a and lash at the intersection of speed for;

$$N_{-20}=610 \text{ r.p.m}$$

$$N_{-23}=430 \text{ r.p.m}$$

$$N_{-25}=305 \text{ r.p.m}$$

2.Determine the coefficient of viscosity, figure DWG03, drawing viscosity 10,000cp---dotted line b and curve phase Pay.coefficient of viscosity for:

$$f=8.1$$

3.Determine mechanical seal power coefficient single seal, seal material SIC/SIC

$$s=0.5$$

4.Computing power

According to the formula  $P=(Q*H/18.5+f+s)*N$  must:

$$P_{-20}=(5*10/18.5+8.1+0.5) *610=6.894\text{kw}$$

$$P_{-23}=(5*10/18.5+8.1+0.5) *430=4.860\text{kw}$$

$$P_{-25}=(5*10/18.5+8.1+0.5) *305=3.447\text{kw}$$

5.Sure model

According to the manual type table

TUL/TUR – 25 3 to 7T1bar/4.0kw can meet requirements parameters

## 转子泵机械无极变速 Mechanical Continuously Variable Transmission Lobe Pump



### 说明:

无极变速机: 结构为目前最常用的配备的形式, 配备的是机械摩擦式无极调节器, 利用手动调节的形式实现输出转速的无极调节, 达到无极调节流量的效果。

### Description:

Continuously variable transmission, the structure is equipped with the most commonly used form of mechanical friction stepless adjuster, the use of manual adjustment in the form of realization of the output speed stepless adjustment, to regulate flow of stepless effects.

TUR-TUL系列选型表 TUR-TUL Series selection table

50Hz/60Hz N-200~1000Min

型号 Model	流量(吨) Flow rate(m <sup>3</sup> /h)	压力 (BAR) Pressure	电机功率 (kw) Motor Power	建议转速 (Min-1) Recommend rotate speed	每转排量 (升) Flow per Rotate	每100转排量(升) Flow per 100 Rotate	进/出口规格 Inlet & Outlet Size	
TUR-20	TUL-20	1-3	12	1.5kw	200-450	0.137	13.7	1"-DN25
		1-3	9	1.1kw				
		1-3	5	0.75kw				
TUR-23	TUL-23	2-5	12	3.0kw	200-450	0.194	19.4	1.5"-DN40
		2-5	9	2.2kw				
		2-5	5	1.5kw				
TUR-25	TUL-25	3-7	10	4.0kw	200-450	0.273	27.3	2"-DN50
		3-7	7	3.0kw				
		3-7	4	2.2kw				
TUR-30	TUL-30	5-10	12	5.5kw	200-400	0.423	42.3	2"-DN50
		5-10	8	4.0kw				
		5-10	4	3.0kw				
TUR-35	TUL-35	6.5-13	10	5.5kw	200-400	0.53	53	2.5"
		6.5-13	7	4.0kw				
		6.5-13	3	3.0kw				
TUR-55	TUL-55	7-14	12	7.5kw	200-400	0.602	60.2	DN65
		7-14	9	5.5kw				
		7-14	6	4.0kw				
TUR-60	TUL-60	7-14	3	3.0kw	200-400	0.665	66.5	3"
		8-16	10	7.5kw				
		8-16	7	5.5kw				
TUR-70	TUL-70	8-16	5	4.0kw	200-400	1.524	152.4	3"
		8-16	3	3.0kw				
		15-31	9	7.5kw				
TUR-80	TUL-80	15-31	5	5.5kw	200-400	1.583	158.3	DN80
		20-40	7	7.5kw				
TUR-100	TUL-100	20-40	4	5.5kw	200-400	1.956	195.6	4"-D100
		25-50	6	7.5kw				
		25-50	3	5.5kw				

注意: 流量是根据三菱转子计算的结果, 如需其他的转子流量请与东正联系。

Note: Flow rate is according to 3-leaves rotor, for flow rate of other rotor, Please contact Donjoy for details.

# 卫生凸轮泵(转子泵) Hygienic lobe pump(rotor pump)

## 变频调速/定速比输出转子泵 Frequency converter/Fixed speed output reducer lobe pump



### 说明:

变频调速输出: 其速度是可调节的, 流量也是可以可调的。  
定速比输出减速机: 其速度是不可调节的, 输出流量也是一定的也不可调节的。其结构特点, 扭矩大, 对于特别粘稠的物料的输送效果最好。

### Description:

Fixed speed output reducer: with a fixed speed output transmission, its speed is not regulated, the output flow rate is certain, also can not be adjusted. Its structural characteristics is high torque, perfect for transfer of viscous material.

TUR-TUL系列选型表 TUR-TUL Series selection table

50Hz/60Hz N-50-800Min

型号 Model	流量(吨) Flow rate(m <sup>3</sup> /h)	压力 (BAR) Pressure	电机功率 (kW) Motor Power	建议转速 (Min-1) Recommend rotate speed	自转排量 (升) Flow per Rotate	每100转 排量(升) Flow per 100 Rotate	进/出口规格 连接方式 Inlet/Out Cvillet Size	
TUR-20	TUL-20	1-2	20	3.0kw	100-450	0.15	15	1"-DN25 卡箍、螺纹 DIN,SMS,IDF,RJT
		1-3	15	2.2kw				
		1-3	12	1.5kw				
		1-3	9	1.1kw				
TUR-23	TUL-23	1-3	5	0.75kw	100-450	0.212	21.2	1.5"-DN40 卡箍、螺纹 DIN,SMS,IDF,RJT
		2-5	20	4.0kw				
		2-5	15	3.0kw				
		2-5	12	2.2kw				
TUR-25	TUL-25	2-5	9	1.5kw	100-450	0.298	29.8	2"-DN50 卡箍、螺纹 DIN,SMS,IDF,RJT
		2-5	5	1.1kw				
		3-7	15	5.5kw				
		3-7	10	4.0kw				
TUR-30	TUL-30	3-7	7	3.0kw	100-400	0.496	49.6	2"-DN50 卡箍、螺纹 DIN,SMS,IDF,RJT
		3-7	4	2.2kw				
		5-10	20	7.5kw				
		5-10	12	5.5kw				
TUR-35	TUL-35	5-10	8	4.0kw	100-400	0.631	63.1	2.5"-DN50 卡箍、螺纹 DIN,SMS,IDF,RJT
		5-10	4	3.0kw				
		6.5-13	18	7.5kw				
		6.5-13	10	5.5kw				
TUR-55	TUL-55	6.5-13	7	4.0kw	100-400	0.705	70.5	DN65 卡箍、螺纹、法兰 DIN,SMS,IDF,RJT
		6.5-13	3	3.0kw				
		7-14	12	7.5kw				
		7-14	9	5.5kw				
TUR-60	TUL-60	7-14	6	4.0kw	100-400	0.778	77.8	3" 卡箍、螺纹、法兰 DIN,SMS,IDF,RJT
		7-14	3	3.0kw				
		8-16	10	7.5kw				
		8-16	7	5.5kw				
TUR-70	TUL-70	8-16	5	4.0kw	100-360	0.1791	17.91	3" 卡箍、螺纹、法兰 DIN,SMS,IDF,RJT
		8-16	3	3.0kw				
		15-31	18	15kw				
		15-31	12	11kw				
TUR-80	TUL-80	15-31	9	7.5kw	100-360	1.824	182.4	DN80 卡箍、螺纹、法兰 DIN,SMS,IDF,RJT
		15-31	5	5.5kw				
		20-40	15	15kw				
		20-40	10	11kw				
TUR-100	TUL-100	20-40	7	7.5kw	100-360	229.9	22990	4"-DN100 卡箍、螺纹、法兰 DIN,SMS,IDF,RJT
		20-40	4	5.5kw				
		25-50	10	11kw				
		25-50	6	7.5kw				
TUR-125	TUL-125	25-50	3	5.5kw	100-360	292.2	29220	5"-DN125 卡箍、螺纹、法兰 DIN,SMS,IDF,RJT
		31-62	10	15kw				
		31-62	7	11kw				
		31-62	4	7.5kw				