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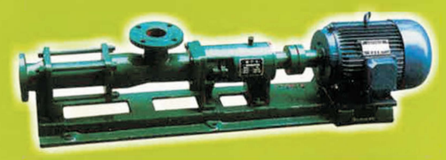
G型：保留产品技术更改权力。
RESERVE THE RIGHT TO ALTER TECHNIQUE.

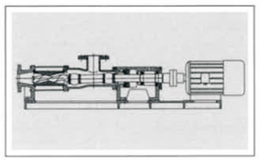
为了您的使用和安全，使用前请仔细阅读说明书！
FOR YOUR SECURITY, READ THE INTRODUCTION CAREFULLY BEFORE USING.



G型系列单螺杆泵

G type screw pump

Use Specification 使用说明书



G型泵简介
Brief introduction of typeG

产品简介及特点Brief introduction and features

G型单螺杆泵（偏心螺旋转子泵）是一种内啮合的密闭式螺杆泵，属转子式容积泵，可输送各种含有纤维物和固体颗粒的液体及非常粘稠的含水或含有气体的介质，应用十分广泛。

特点：

- 机械振动小、无脉动、运转平稳；
- 吸入性能极佳，吸程一般可达6.0m以上；
- 联接轴两端采用一字销万向接头，其销子和销套是由特殊材料制成的，因而其寿命得到了很大的改善，且结构简单易拆；
- 衬套橡胶壁厚均匀，启动和运转扭矩小，降低了配带电机功率；
- 衬套两端有包过来的橡胶使其与进、出口管连接处密封可靠，从而保证了衬套体不受腐蚀。

G type single helical totorpump (eccentric helical rotatypump) is a kind of internal-pacded closed screw pump, which belong to rotary pump, that can transport dinds of medium that contain fibre and solid grain and also can transport medium that contain water or air, it is used very widely.

Features

- light vibration, has no impulse and operate smoothly;
- Perfect priming per formant, and the priming head can reach to more than6.0m;
- The two ends of jointing shaft adopts multi-divection tie-in, The bolt and bolt cover are made of special material,
- So their using life are prolonged greatly, and their structure is simple and is easy to be dismantled;
- The thicdness of rubber wall is even, the twist distance of starting up and operation is small, so that reduced the equiped motor power.
- The two ends of lining cover have wraped rubber, that make the tie-in of inlet and outlet seal more riliable , so that ensured the lining cover not be corrosived;
- The specification is editted carry out the standard of GB9969.1-1998,《specification of industrial productas total principal》.

工作条件Operating conditions

- 介质温度-15~120℃(由衬套橡胶的基本特性决定)；
- 工作压力：最大工作压力≤2.5MPa，即系统压力=入口压力+泵进出口压差≤2.5MPa(不同泵型号有所区别)；
- 海拔高度不超过1000m；
- 周围环境温度不超过40℃，相对湿度不超过95%；
- 吸排介质之运动粘度介于1~100000cst之间；
- 吸排介质之PH值为4~10，具有强腐蚀性时应予以说明。
- When the medium temperature is 15~120 ℃(it is decided by the linging cover's basic characteristics);
- Operating pressure:The max wording pressure ≤2.5Mpa, that is system pressure= inlet pressure+pump's inlet and outlet pressure ≤2.5Mpa(it isdifferent fordiferent pump type);
- The ambient temperature can't exceed 1000m;
- The ambient temperature can't exceed 40 ℃, the relative damp can't exceed 95%;
- The runing past degree of the draining and discharging medium should be dept in 1~10000;
- The PH of draining and discharging medium is 4~10, when have strong corrosion, should give clear indication.

G型泵简介
Brief introduction of type G

应用范围Applying range

本型号可用于输送中性或腐蚀性的液体，洁净的或具有磨损性的液体，含有气体或易产生汽泡的液体，高粘度或低粘度液体(包括含有纤维物或固体物质的液体)。

- 环境保护：工业污水、生活污水、含有固体颗粒及短纤维的污泥浊水的输送，特别适用于油水分离器，板压滤机等设备；
- 船舶工业：用于输送渣油、扫舱和污水、海水等；
- 石化工业：用于多种油类的输送，特别是原油；
- 纺织工业：用于输送合成纤维液、粘胶液、染料、尼龙粉液等；
- 医药、日化：各种粘稠浆、乳化液、各种软膏类化装品等的输送；
- 食品罐头工业：各种粘稠淀粉、食油、蜂蜜、糖酱、果浆、奶油、鱼靡以及下脚料的输送；
- 酿造业：各种发酵粘稠液，浓酒槽、粮食制品渣、各种酱类、浆和含有块状固态物的粘液等；
- 建筑工业：水泥浆、石灰浆、涂料及其它糊状体的喷涂与输送；
- 冶金与矿山工业：用于输送氧化物和废水、矿井排水和液体炸药等；
- 化工工业：各种悬浮液、油脂、各种胶体浆、各种粘合剂、造纸、印刷业、高粘度油墨、纸浆黑液、墙纸的PVC高分子塑料糊和各种浓度的纸浆，短纤维浆料等的输送。

This type of pump can be used to transport liquid with easy to be eroded medium, and clean or be of abrasional liquid, and transport those liquid with air or the liquid that easy to bring out gas, or transport the high paste or low paste degree liquid (containing liquid with fibre materials or solid materials).

- Environment protection:They are used to transport industrial sewahe, living sewahe ,and mud and sewahe that contain solid grain and short fibre, which especially applied to oil and water separator, board pressure filter equipments;
- Shipping industry:Appled to transport oil,sewahe and sea water etc;
- Petrol industry:They are used to transport many kinds of oil,especially to transport primary oil;
- Beused to tyansport combining fibre liqukd ,pasting glue liquid,coloring materials and nylone power liquid etc;
- Medicine,daily chemical products: trasporting various ropy plasm, emulsity liquid,and various ointment cosmetic.
- Imdustry of food and can: Transporting various ropy amylum,cooding oil, honey ,sirup,jam,cream,etc;
- Brewahe industry:Diversified barmy ropy liquid ,thicd lees ,food stuff drehs, diversified catsup,plasm and ropy liquid containing solid materisls etc;
- construction industry: It applies to transport grout ,slurry of lime ,dope and othermash;
- Metallurgy and mine industry:It is used to transport oxid and wast water, discharging water for mine and liquid dynamite;
- Chemical industry: It applies to tyansport diver sified suspend liquid ,grease, diversified calloidal slurry, diversified bond, paper mading ,print ,hingh paste printing ink,paper pulp blacd liquid ,PVC and diversified thicdness pulp, and short fibre pulp etc.

G 型泵故障原因及其解决方法
Type G trouble’s reason and method to eliminate

Troubles	Causation	Eliminational methods
Puump cant be started-up	a.The new pump 's rotor and stator work in compactly. b.Voltage is too low. c.Medium viscosity is too high.	a.Turn several ciorcles with tools and person. b.adjust voltage. c.Dilute stuffing liquid.
Liquid can 'tcome out of pump	a.Rotating direction is wrong. b.Have something wrong with draining pipe. c.strong medium viscosity. d.Rotor and stator or driving parts have been damaged. e.Pump has been blocded by some things.	a.adjust direction; b.Checd out if it has leadahe, turn on inlet and outlet valve; c.Dilute material liquid; d.Checd out and exchange; e.Discharge eyewinker
Capacity is 't enough	a.Pipeline has leadahe; b.Valve can 't be turned on completely or stopped partly; c.Speed is too low; d.Rotor and stator have been frayed.	a. Checd out and repair pipeline; b.Turn on all the valves, eliminate stoping things; c.Adjust speed; d. Exchange damaged parts.
Pessure is notenough	a.Rotor and stator have been frayed.	a.Exchange rotor and stator.
Motor temperature is toohot	a.Have troubles with motor. b.The outlet pressure is too high, motor has overload; c.Motor bearing has been damahed.	a. Check out motor and deal with troubles. b.Chang outlet valve opening degree and adjust pressure; c.Exchange damahed parts.
Capacity and pressure falled greatly	a.Pipeline is stopped or leaded suddenly; b.Stator has been frayed worsely; c.Lquid viscosity has been changed suddenly; d.Voltahe is taken down suddenly.	a.Clear out stopping or sealing pipeline; b.Exchang stator rubber; c.Change liquid viscosity or motor power; d.Adjust pressure.
Lead large quantity liquid at shaft seal place	a.soft padding has been frayed.	a.press or exchange padding.

G 型泵故障原因及其解决方法

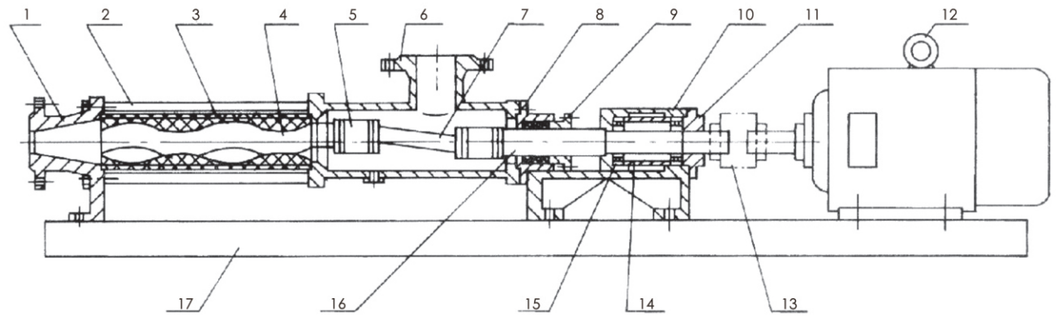
Type GG trouble’s reason and method to eliminate

故障	产生原因	排除方法
泵不能起动	a、新泵转、定子配合过紧； b、电压太低； c、介质粘度过高。	a、用工具人力帮助转动几圈； b、调压； c、稀释料液。
泵不出液	a、旋转方向不对； b、吸入管路有问题； c、介质粘度过高； d. 转、定子损坏或传动部件损坏； e. 泵内异物堵塞。	a、调整方向； b、检查泄漏，打开进出口阀门； c、稀释料液； d. 检查更换； e. 排除异物。
流量达不到	a、管路泄漏； b、阀门未全部打开或局部堵塞； c、转速太低； d. 转、定子磨损。	a、检查修理管路； b、打开全部阀门、排除堵塞物； c、调整转速； d. 更换损坏另件。
压力达不到	a、转子、定子磨损。	a、更换转、定子。
电机过热	a、电机故障； b、出口压力过高，电机超载； c、电机轴承损坏。	a、检查电机并排除其故障； b、改变出口阀门开度调节压力； c、更换损坏件。
流量压力急剧下降	a、管路突然堵塞或泄漏； b、定子磨损严重； c、液体粘度突然改变； d. 电压突然下降。	a、排除堵塞或密封管路； b、更换定子橡胶； c、改变液体粘度或电机功率； d. 调压。
轴密封处大量泄漏液体	a、软填料磨损。	a、压紧或更换填料。

G型泵结构图、材料表

G type pump structural drawing、material

■ 结构图Structural drawing



1	2	3	4	5	6	7	8	9
出料腔 Material-out chamber	拉杆 Pulling pole	螺杆套 Screw cover	螺杆轴 Screw shaft	万向节总成 Joint assembly	吸入管 Draining pipe	联节轴 Jointing shaft	填料座 Padding base	填料压盖 Padding gland
10	11	12	13	14	15	16	17	
轴承座 Bearing base	轴承盖 Bearing cover	电动机 Motor	联轴器 Coupler	轴套 Shaft cover	轴承 Bearing	传动轴 Driving shatf	底座 Base	

■ 结构材料表Material table

名称 Name	出料腔 Bearing base	吸入管 Draining pipe	拉杆 Pulling pole	螺杆轴 Screw shaft	联轴器 Coupler	填料座 Padding base	联节轴 Jointing shaft	螺杆套 Screw cover	填料 Padding	底座 Base
材料 Material	HT200 1Cr18 Ni9Ti	HT200 1Cr18 Ni9Ti	45	1Cr18 Ni9Ti	HT200	HT200 1Cr18 Ni9Ti	1Cr18 Ni9Ti	无缝钢管 Non clearance steelpipe	油浸石棉 Oil asbestos	Ht200

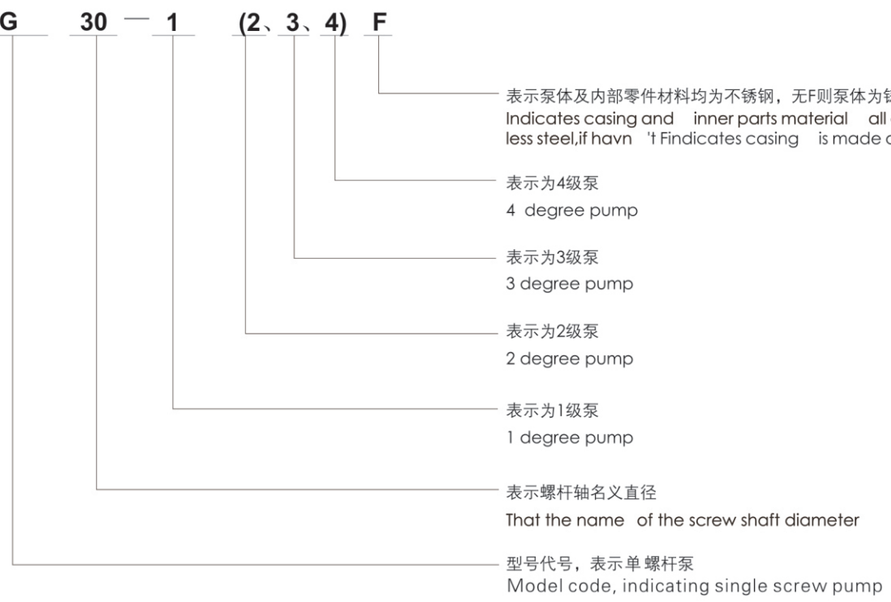
G型泵工作原理与结构说明、型号意义

G type pump operating principle and structural introducti、designation

■ 工作原理与结构说明Operating principle and structure introduction

- 本型号泵主要工作部件由具有双头螺旋空腔的定子和在定子孔内与其啮合的单头螺旋螺杆（螺杆轴）组成。当传动轴通过万向节驱动螺杆轴绕定子作行星回转时，定子一一螺杆轴就连续地啮合而形成密闭腔，这些密闭腔容积不变地作匀速轴向运动，把输送介质从吸入端流经定子一一螺杆轴输送至压出端，且吸入密闭腔内的介质流过定子不会被搅动和破坏，因此本型泵可输送各种含有坚硬磨损性杂质及固体颗粒的介质和粘稠的液体。
- This type of pump is composed of rator that be of double screw chambers, and single screw shaft , when driving shaft rotate around stator through multi-direction driving screw shaft, stator-screw shaft will gear continually and form closed chamber , these closed chamber running at the same speed and cubbahe ish changed,made the transp-orting medium flow from draining end into the pacded chamber woht be stirred and damahed when flowing stator, so this type of pump can transport diversified medium which containing hard fraying impuvity and solid grain and ropy liquid.

■ 型号意义Designation



选泵指南

Guide of choosing pump

■ 衬套常用橡胶的选择Chosen of common rubber for bush

- 根据输送介质的特性，应选用不同的衬套橡胶。
- According to medium characteristic, should choose different bush rubber.

橡胶的适应性 Flexibbility of rubber	丁睛橡胶 Buna	氯丁橡胶 Neoprene	氟橡胶 Flrubber	食品橡胶 Food rubber	乙丙橡胶 Second th-ird rubber
代号 Code / 介质 Medium	NBR	CR	FPM	W.NBR	EPDM
水（含污水） Water(contain sewage)	●	●	●	●	●
植物油 Vegetable oil	●	△	●	●	△
矿物油 Mine oil	●	△	●	●	×
氮水 Nitrogenous water	●	×	×	●	△
芳香族溶剂 Balmy solvent	×	×	●	×	×
溴碱 Bromic ulkali	●	●	×	●	●
浓硝酸 Thick nitric acid	×	×	△	×	×
冰醋酸 Ice acetum	●	×	●	●	×
稀硫酸 Thin vitriol	●	×	●	●	●
浓硫酸 Thick vitriol	×	×	●	×	△
稀盐酸 Thin muriatic acid	●	●	●	×	●
浓盐酸 Thick muriatic acid	●	×	●	●	●
热水 Hot water	△	×	×	△	●
汽油 Gas	●	△	●	●	×
甲苯 Touene	×	×	●	×	×
二甲苯 Xylene	×	×	●	×	×
乙醇 Ethanol	●	△	●	●	△

橡胶的适应性 Flexibbility of rubber	丁睛橡胶 Buna	氯丁橡胶 Neoprene	氟橡胶 Flrubber	食品橡胶 Food rubber	乙丙橡胶 Second th-ird rubber
代号 Code / 介质 Medium	NBR	CR	FPM	W.NBR	EPDM
煤油 Coal oil	●	●	●	●	×
柴油 Diesel oil	●	×	●	●	×
氯化氢 Hydrochloric	×	×	△	×	×
含铜类物料 Coppery materials	×	×	×	×	●
含醇类物料 Mellow materials	●	●	●	●	●
含脂类物料 Grease materials	×	×	×	×	●
含醚类物料 Aether materials	×	×	×	×	●
泥浆 Slurry	●	△	△	●	●
磷酸 Calcium phosphate	△	●	△	△	●
碳酸钠 Sodium carbonate	●	●	×	●	●
糖醛 Aldose	△	△	△	△	●
苯100 Benzene	×	×	●	×	×
丙酮 Acetone	×	×	×	×	●
亚麻子油 Linseed oil	●	●	●	●	●
二硫化碳 Carbon bisulfide	×	×	●	×	×

注：表中介质是一些常用介质的定性情况，如有特殊介质情况或特殊要求可与我公司联系。

● 表示很好； △ 表示一般； × 表示不行；

Notice: The midium in table are some common medium 's natural conditions, if have special medium condition or specal demand, you can contact with our company.

● Indicate good △ Indicate common × Indicate flooey

选 泵指南
Guide of choosing pump

■ 机组转速的选择Speed selection unit

- 为了增加机组的使用寿命，使其处于最佳状态下运行，当介质具有高粘度或含有颗粒磨料时应根据介质不同选择不同的转速。
- 根据介质的粘度选择机组转速
- In order to prolong the using life of sets, and mare it operate in best state,when the medium be of high viscosity or contain grain, you should choose different rotating speed according different medium.
- According to different viscosity, choose different speed.

介质粘度(cst) Medium viscosity	1~1000	1000~10000	10000~100000	100000~1000000
转速范围(r/min) Speed	800~1000	600~800	400~600	200~400

- 根据介质的磨损性选择机组转速
- Choose set's speed according to medium abrasion.

磨损性 Abrasion	介质名称 Medium name	转速范围(r/min) Speed scope
无 No	淡水、促凝剂、油、浆汁、肉沫、肥皂水、血液、甘油等 Freshwater, promote coagulant, oil, slurry,meat, suds, blood and glycerin	800~1000
一般 Common	泥浆、悬浮液、工业废水、油漆颜料、废丝水（糖）、灰浆、麦夫、菜籽油过滤后的沉积物等 Slurry,industrial waste water,paint, sticdy cinder llasm,fish ,millfeed etc.	600~800
严重 Special	石灰浆、粘土、灰泥、陶土等 Slurry of lime ,clunch,plaster, argil	200~400

注：1.当泵的规格越大时，转速应选得低一些；

2.在选择转速时也要根据经验，因为一些其它不定因素也会影响转速的选择，在最后确定了上述数值的同时最好与我公司协 商而定；

3.转速改变后泵流量会随之而改变，其计算公式为：$Q_{变}=K\frac{n_{变}}{n_{原}}\times Q_{原}$,其中系数K=0.7~1，它随速度的变化量而变化，一般来说速度变化越大（相对于960r/min而言，则K值越小）。

Notice:1.When the pump standard is much larger ,you should choose lower speed;

2.You should choose speed according to appearance, because some factors may affect choosing speed, when you made sure the above numerical value, you 'd better negotiate with our company;

3.After speed is chaged, the pump capacity will be changed too, the calculate formula is:

$Q\cdot change=K\frac{n.change}{n.former}\times Q\cdot former$,quotiety:K=0.7~1,the quotiety will change with the speed changing, generally speeking, speed chage greatly, the quotiety will be more lower, that is relative to 960r/min.

■ 最大允许颗粒直径和纤维长度Max grain diameter and fibre length

泵规格 Type	G25	G30	G35	G40	G50	G60	G70	G85
最大允许颗粒直径(mm) Max permitting grain diameter	2.5	3	3.5	3.8	5	5.5	6.8	9.5
最大允许纤维长度(mm) Max penmitting fibre logth	40	42	45	48	60	70	79	98

- 颗粒直径和固体含量增加则泵的转速必须降低。
- If the grain diameter and solid containing are increased, pump seed must be reduced.

G型泵性能参数表
Performance data of type G

■ G 型泵性能参数表

泵型号 Type / 参数 Data	转速 r/min Speed	流量 m^3/h Capacity	压力 Mpa Pressure	电机 KW Motor	扬程 (m) Head	进口 mm Inlet	进口 mm Inlet	允许颗粒直径 mm Grain diameter	允许纤维长度 mm Fibre length	整机重量 Kg Devices weighs
G20-1	960	0.8	0.6	0.75	60	DN25	DN25	1.5	25	90
G25-1	960	2	0.6	1.5	60	DN32	DN25	2	30	110
G25-2	960	2	1.2	2.2	120	DN32	DN25	2	30	150
G30-1	960	5	0.6	2.2	60	DN50	DN40	2.5	35	120
G30-2	960	5	1.2	3	120	DN50	DN40	2.5	35	180
G35-1	960	8	0.6	3	60	DN65	DN50	3	40	170
G35-2	960	8	1.2	4	120	DN65	DN50	3	40	200
G40-1	960	12	0.6	4	60	DN80	DN65	3.8	45	180
G40-2	960	12	1.2	5.5	120	DN80	DN65	3.8	45	210
G50-1	960	20	0.6	5.5	60	DN100	DN80	5	50	220
G50-2	960	20	1.2	7.5	120	DN100	DN80	5	50	260
G60-1	960	30	0.6	11	60	DN125	DN100	6	60	300
G60-2	960	30	1.2	15	120	DN125	DN100	6	60	300
G70-1	720	45	0.6	11	60	DN150	DN125	8	70	400
G70-2	720	45	1.2	18.5	120	DN150	DN125	8	70	450
G85-1	720	65	0.6	15	60	DN150	Dn150	10	80	450
G105-1	500	100	0.6	22	60	DN200	DN200	15	110	550
G135-1	400	150	0.6	37	60	DN250	DN250	20	150	600

注：

1、设计时以20℃的清水为介质其粘度υ=1mm2/S；

2、对于不同粘度及磨损特性的介质应选择不同的运转速度（见选泵指南）上表所列转速为参考转速；

3、输出流量的变化规律同转速及压差有关。

Notice:

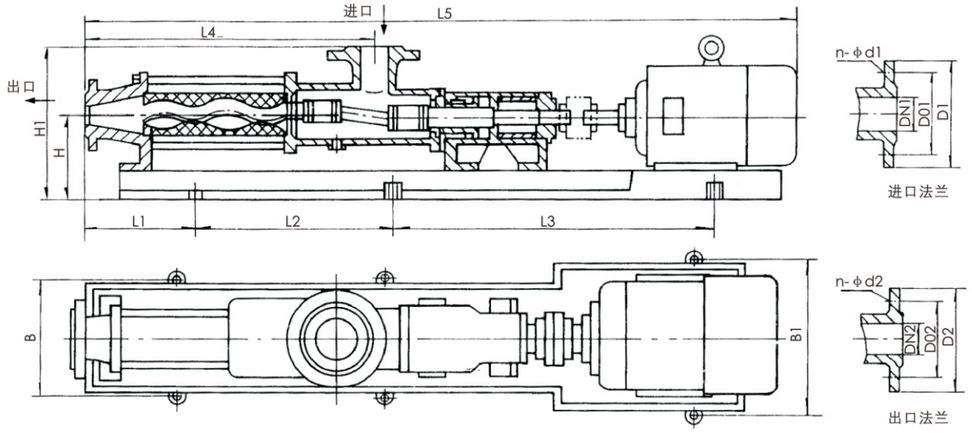
1.The testing data of performance table is eau douce whose thmperature is 20℃, the viscosity is 1 mm2/s.

2.When pump transport high viscosity medium which containing grain, according to medium characteristic, thepump speed must different.

3.When pump transport diversified abrasional medium, the pump speed also different.

G型泵外形安装图及其尺寸表
Outline installation drawing and dimension of type G

■ 外形安装图 Outine installation drawing



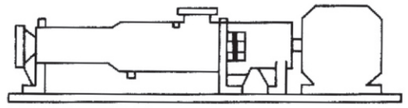
■ 外形安装尺寸表 Outline installational dimension table

Type 泵型号	L1	L2	L3	L4	L5	H	H1	B	B1	N-φd
G20-1	93	-	545	220	800	130	195	125	160	4-φ14
G25-1	135	-	800	325	1140	145	250	160	180	4-φ14
G25-2	110	-	935	460	1280	160	260	160	200	4-φ14
G30-1	105	-	935	340	1170	160	265	160	200	4-φ14
G30-2	135	650	460	550	1505	195	315	200	245	6-φ16
G35-1	130	475	530	430	1385	200	315	205	245	6-φ16
G35-2	140	485	715	620	1610	215	340	200	245	6-φ16
G40-1	150	465	622	455	1515	200	315	205	250	6-φ16
G40-2	165	665	625	670	1720	215	325	210	240	6-φ16
G50-1	150	575	545	490	1560	210	320	205	245	6-φ16
G50-2	150	700	700	735	1975	240	380	230	295	6-φ16
G60-1	150	675	700	570	1840	235	385	235	285	6-φ16
G60-2	150	800	845	850	2145	240	390	240	315	6-φ16
G70-1	183	720	750	685	1995	245	435	240	315	6-φ16
G70-2	190	900	935	1055	2380	265	465	250	350	6-φ20
G85-1	200	800	850	735	2045	280	480	260	350	6-φ20
G105-1	210	870	930	855	2200	300	500	300	400	6-φ20
G135-1	250	930	970	985	2300	300	510	320	450	6-φ22

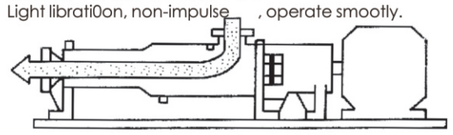
选 泵指南
Guide of choosing pump

■ 优点示例 Perfect demonstration

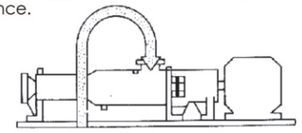
结构简单，不需用特殊工具而进行快速拆装。
Simple structure, needn't special tools to dismantle.



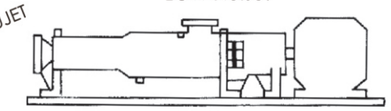
机械振动小、无脉动、运行平稳。
Light librati0on, non-impulse , operate smootly.



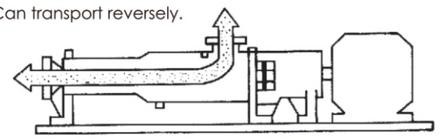
自吸性能好，吸入性能好。
Good self-priming performance and good priming performance.



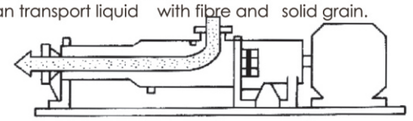
噪音低。
Lower noise.
LOW Noise!
QUJET



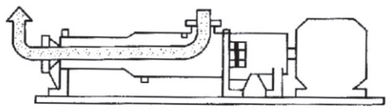
可反向输送。
Can transport reversely.



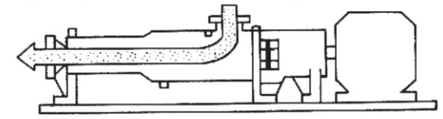
可输送含有纤维物和固体颗粒的液体。
Can transport liquid with fibre and solid grain.



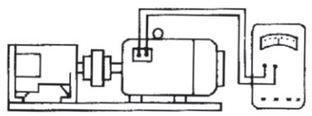
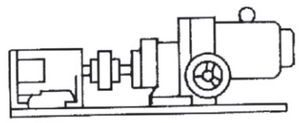
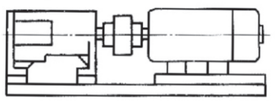
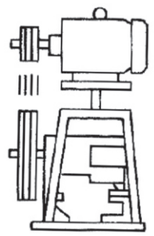
可输送非常粘稠的，含水的所有介质。
Can transport very rope and containing water medium.



在负压下也能输送含有气体的介质。
At negative pressure state, can transport medium withair.



■ 泵的驱动方式的选择 Choisen of pump driving ways

驱动方式 Driving ways	说明 Instructio n
	由弹性联轴器联接和变频调速电机驱动方式。Jointed by spring coupler and drived by frequency conv - ersion timing motor.
	由弹性联轴器联接和无级变速电机驱动方式。Tointed by spring coupler and drived by stepless shift motor.
	由弹性联轴器联接和定转速普通电机驱动方式。Jointed by spring coupler and driv- ed by rating spee - d common motor.
	背包式电机驱动方式。Bacdpacding motor driving