Progressive centralized grease lubricating system

递进式集中油脂润滑系统

递进式集中油脂润滑系统概述

Description of the Progressive centralized grease lubrication system

递进式油脂润滑系统由油脂滤油器、抵抗式油脂润滑泵（或递进式油脂润滑泵）、递进式分配器、铜接头、油管等组成。

Progressive centralized grease lubrication system consists of oil filter, resistance grease lubrication pump (or progressive type grease lubrication pump), the progressive distributor, copper fittings, tubing, etc.

1 系统特点

- 系统强制向每个润滑点注油。
- 给油量精准，出油量固定，不因油品黏度、温度变化而变化。
- 循环检测开关可监测润滑系统管路断流、失压、堵塞、卡死等状况。
- 系统中任何一个分配器出油孔出现不作动时，系统循环供油将会产生异常。

System features

- The system forces oil injection to each lubricating point.
- The oil is supplied accurately and ejected oil quantity is constant, which is not changed subject to oil viscosity and temperature.
- The cycle testing switch can monitor the lubricating system out of flow, out of pressure, blocking and sticking etc.
- When oil outlet of any distributor of the system does not work, cycle oil supply of the system may be fault.

2 系统配置注意

- 主油管须用铜管或高压橡胶油管。
- 为确保每次循环每个润滑点出油，一个出油口只能对应一个润滑点。

Attentions for system configurations

- The main oil pipe shall be made of copper pipe or high-pressure rubber oil pipe.
- To ensure that oil is ejected to each lubricating point each point, each oil outlet is corresponding to one lubricating point.

3 安装使用注意

- 各连接油管口裁剪平整，确实连接完好不漏油。
- 安装时保证各管路内部清洁。
- 请使用正厂乾净无杂质的000#-0#油脂。
- 适用温度0~50℃。
- 请从正确的加油孔加油，严禁打开抑油块从油杯上方加油。注意使用环境温度变化，适当调整使用油品黏度，建议在
- 15℃以下时用000#，25℃以上时用000#-0#。

Attentions for installation and use

- The oil outlet pipeline orifices shall be cut in order, and connection is perfect without oil leakage.
- In the process of installing, please ensure that interior of the pipeline is clean.
- Please use the correct, clean and impurity-free 000#-0# oil grease.
- Applicable temperature 0~50℃.
- Please refill oil from the correct oil refilling orifice. Do not open the oil block to refill oil above the oil cup.
- Please notice temperature of environmental temperature, adjust viscosity of oil products, 000# oil grease is recommended under the temperature of below 15℃ ,and 000#-0# oil greases are recommended for temperature above 25℃.

4 基本适用范围

广泛适用于润滑点群多，管路距离远(高)，给油量精准与每点必须强制给油的机械设备。

Basic scope of application

Extensively used for machinery and equipment with excessive lubricating points, distance pipelines, and accurate oil supply point for compulsory oil supply.

5 系统搭配递进式分配器

GPA、GPB、GPC、GPD递进式黄油分配器。

Ystems with progressive distributor

The system is configured with progressive distributor. GPA、GPB、GPC、GPD progressive butter distributor.

6 该系统主机包括

柱塞泵类：GEE、GEB-01、GEC-01、GEN-01、GEO-01、GEP-01

齿轮泵类：GTB-A、GTB-C

The system is composed of

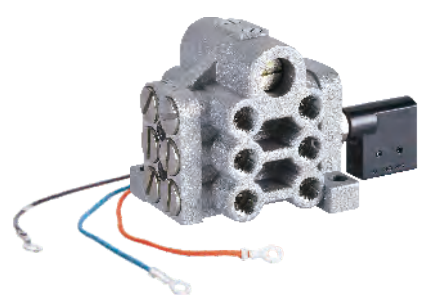
Plunger pump: GEE、GEB-01、GEC-01、GEN-01、GEO-01、GEP-01

Gear pump: GTB-A、GTB-C

GPA 型(Type)

油脂分配器 Progressive grease distributor

■ 递进式油脂分配器 Butter lubricating system



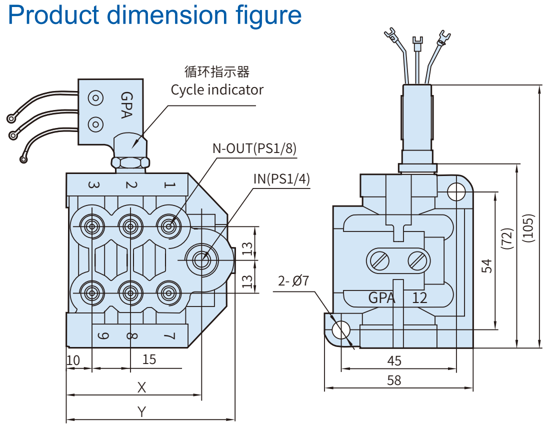
订货编制说明 Order description

GPA-□ □

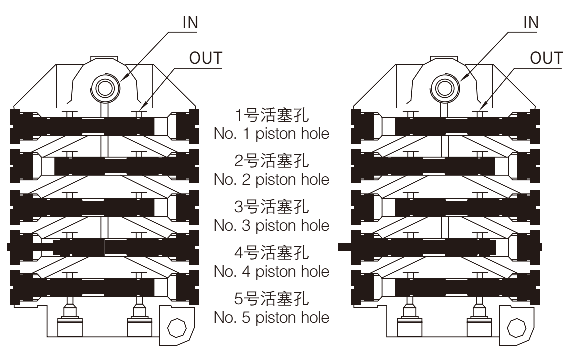
出油口数 Quantity of oil outlets

空白Blank	不带循环指示器 Don't take cycle indicator
M	带循环指示器 Belt loop indicator
2~12	出口数为2~12位 The oil outlet is at position 2~12.

产品外形尺寸图 Product dimension figure



GPA型黄油分配器
GPA type butter dispenser



作动图
Action figure

GPA 型式及技术参数 Model GPA and technical parameters

型式 Model	侦测开关 Detecting switch	出口数 Outlet quantity	X	Y	重量 Weight
GPA-2	无 NO	2	38	51	300
GPA-4		4	38	51	300
GPA-6		6	38	51	300
GPA-8		8	38	51	300
GPA-10		10	53	66	400
GPA-12		12	53	66	400

概述

递进式黄油分配器，是一款设计先进、结构合理的油量分配器。它能够与手动、电动、气动润滑泵等组成单线润滑系统，适用于各种中小型机床和塑料机械设备，以及相似应用场合的理想产品。一组GPA分配器可提供4、6、8、10或12个润滑点的润滑。GPA分配器只有0.3cc/cy一种规格的排量。

※注：对于分配器的出油口，不能堵塞任一出油口，否则会影响其正常工作，损坏分配器。

Overview

The progressive butter dispenser is an oil dispenser with advanced design and reasonable structure. It can form a single-line lubrication system with manual, electric and pneumatic lubrication pumps, etc. It is an ideal product for various small and medium-sized machine tools and plastic machinery and equipment, as well as similar applications. A set of GPA dispensers typically provides 4, 6, 8, 10 or 12 lubrication points for lubrication. The GPA distributor only has a displacement of 0.3cc/cy.

※ Note: For the oil outlet of the distributor, do not block any oil outlet, otherwise it will affect its normal operation and damage the distributor.

GPA 分配器技术参数说明

- 最大公称压力：60kgf/cm^2。
- 标准排量：0.3cc/cy。
- 适用润滑剂范围(在标准温度下)：稀油润滑油≥R68号，油脂000#-0#。
- 工作环境温度：-10℃~+60℃。
- 装有机械式循环指示器的柱塞副最高循环速率：60cy/min。
- 柱塞副最高循环速率：200cy/min。
- 每组分配器可供润滑点数：4、6、8、10、12。
- 分配器输出的最佳管径与长度：Φ4mm长0.5~2.5m。
- 壳体材料：铝合金。

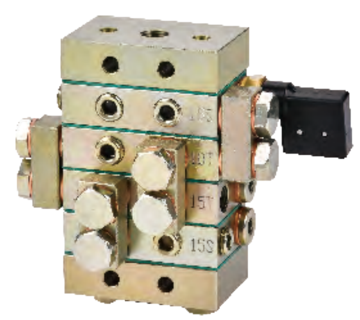
Notes to technical parameters of the GPA distributor

- Maximum nominal pressure: 60kgf/cm^2.
- Standard displacement: 0.3cc/cy.
- Applicable lubricant range (under standard temperature): thin oil lubricating oil ≥ R68, grease 000#-0#.
- Working environment temperature: -10℃~+60℃.
- The maximum cycle rate of the plunger pair equipped with the mechanical cycle indicator: 60cy/min.
- The maximum circulation rate of the plunger pair: 200cy/min.
- The number of lubrication points available for each group of distributors: 4, 6, 8, 10, 12.
- The optimal diameter and length of the distributor output: Φ4mm, 0.5~2.5m long.
- Housing material: aluminum alloy.

GPB 型(Type)

油脂分配器 Progressive grease distributor

■ 递进式油脂分配器 Butter lubricating system



订货编制说明 Order description

GPB - □□-□/·····-□□

工作片数 Number of work

03	3片 pieces.
04	4 片 pieces.
05	5 片 pieces.

注：工作片数可定做3~10片
Note: The number of working pieces can be customized 3~10 pieces

循环开关方式 Cycle switch mode

空白 Blank	不带指示棒 Without indicator stick
R	带机械式循环指示棒 With mechanical cycle indicator
M	带微动开关式循环指示器 With micro switch type cycle indicator
D	带电子式循环开关指示器 With electronic cycle switch indicator

出油口管径Outlet pipe diameter

4	接Φ4管Connected to Φ4pipe
6	接Φ6管Connected to Φ6pipe

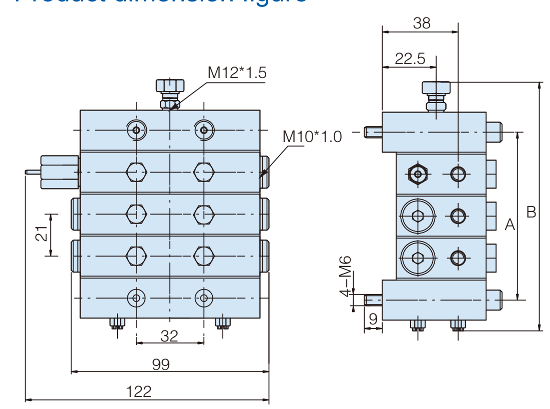
入油口管径Enter pipe diameter

6	接Φ6管Connected to Φ6pipe
8	接Φ8管Connected to Φ8pipe

工作片规格标记符
Worksheet Spec Marker

例：	D30SL

产品外形尺寸图 Product dimension figure



工作片数 number	A(mm)	B(mm)	工作片数 number	A(mm)	B(mm)
3	89.4	143	7	171.8	223
4	110	163	8	192.4	244
5	130.6	183	9	213	264
6	151.2	203	10	233.6	284

※ 注:A和B为理论值,由于分配器装配存在累计误差,会与实际尺寸有所出入。

※ Note: A and B are theoretical values, due to the cumulative error of the distributor assembly, May differ from actual size.

概述

GPB系列递进式分配器，是一种设计先进、结构合理的油量分配器。GPB分配器系列可以用于高压和宽温度变化的工况，它能够与手动、电动、气动泵等组成单线润滑系统，适用于各种中型机床和塑料机械设备，或大型单线润滑系统的子分配器，以及相似应用场合的理想产品。

一组典型的GPB分配器包括由一片“首片”、一片“尾片”和3至10工作片构成。通常一组分配器可提供为3至20个润滑点的润滑。GPB分配器的工作片，有各种规格的排量（详见技术规格）。双出油口工作片（在工作片的规格数值后，用T表示双出油口），有两个出油口，分别在工作片的两端；单出油口工作片（在工作片规格数值后，用S表示单出油口）有一个出油口，它可以在工作片的任一端，而另一端出油口处则需要堵塞。注意对于双出油口工作片，不能堵塞任一出油口，否则会损坏分配器，影响其正常工作。

Overview

GPB series progressive distributor is an oil distributor with advanced design and reasonable structure. The GPB distributor series can be used for high pressure and wide temperature change conditions. It can form a single-line lubrication system with manual, electric and pneumatic pumps, etc. It is suitable for various medium-sized machine tools and plastic machinery equipment, or sub-distribution of large single-line lubrication systems. devices, and ideal products for similar applications.

A typical set of GPB distributors consists of a "first piece", a "tail piece" and 3 to 10 working pieces. Typically a set of dispensers provides lubrication for 3 to 20 lubrication points. The working pieces of the GPB distributor are available in various sizes of displacement (see technical specifications for details). Double oil outlet working piece (after the specification value of the working piece, use T to indicate double oil outlet), there are two oil outlets, respectively at both ends of the working piece; single oil outlet working piece (in the working piece specification After the value, use S for single oil outlet) There is an oil outlet, which can be at either end of the working piece, and the oil outlet at the other end needs to be blocked. Note that for the double oil outlet working piece, any oil outlet cannot be blocked, otherwise the distributor will be damaged and its normal operation will be affected.

技术参数

- 最大工作压力：25MPa
- 最小启动压力：1.4MPa
- 单口标准排量：0.08ml/cy~0.56ml/cy
- 适用润滑剂范围（在标准温度下）：润滑油≥N68号，润滑脂NLGI 000 # ~2 #
- 工作环境温度：-20℃~+60℃（低温时应使用低温脂）
- 装有机械式循环指示器的柱塞副最高循环速率：60cy/min
- 柱塞副最高循环速率：200cy/min
- 每组分配器工作片数：3~10片
- 每组分配器可供润滑点数：3~20点
- 分配器输出的最佳管径与长度：Φ6mm长1.2~3.5m;8mm长1.5~4.5m
- 阀体材料及镀层：碳钢表面镀锌

Technical parameter

- Maximum working pressure: 25MPa
- Minimum starting pressure: 1.4MPa
- Standard displacement per port: 0.08ml/cy~0.56ml/cy
- Applicable lubricant range (at standard temperature): lubricating oil ≥ N68, grease NLGI 000 # ~2#
- Working environment temperature: -20℃~+60℃ (low temperature grease should be used at low temperature)
- Plunger pair with mechanical cycle indicator Maximum cycle rate: 60cy/min
- Maximum circulation rate of plunger pair: 200cy/min
- Number of working pieces of each group of distributors: 3~10 pieces
- The number of lubrication points available for each group of distributors: 3~20 points
- The optimal diameter and length of the distributor output: Φ6mm long 1.2~3.5m; 8mm long 1.5~4.5m
- Body material and coating: galvanized carbon steel surface

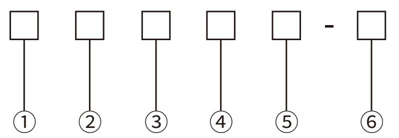
GPB 型(Type)

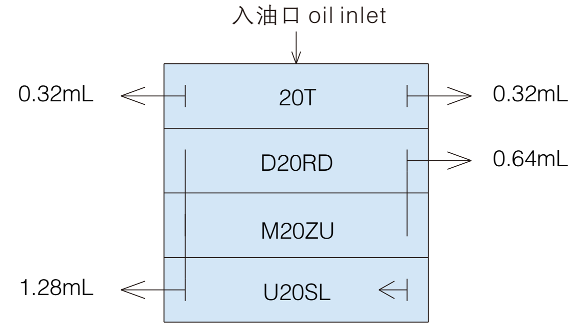
油脂分配器 Progressive grease distributor

■ 递进式油脂分配器 Butter lubricating system

工作片标记符

①⑤分配器（片）相邻给油口上下合并状态标记：
U：表示该出油口与相邻上片给油口合并。
M：表示该出油口与相邻上片、相邻下片给油口同时合并。
D:表示该给油口与相邻下片给油口合并。
空白:表示不与相邻上下片给油口合并。
②分配器（片）给油量规格代号：
05——0.08ml/cy; 10——0.16ml/cy;
15——0.24ml/cy; 20——0.32ml/cy;
25——0.40ml/cy; 30——0.48ml/cy;.
35——0.56ml/cy。
③分配器（片）左右给油口合并状态标记：
S：表示该片左右给油口合并。
空白:表示左右油口不合并。
④分配器（片）给油口状态标记：
T：表示该片左、右侧均设给油口。
Z：表示该片不设给油口。
L：表示该片单出口，左侧设置给油口。
R：表示该片单出口，右侧设置给油口。
⑥循环指示器组装位置:
L 表示该片设有指示器且装在该片左端。
R：表示该片设有指示器且装在该片右端。
空白:表示该片不设指示器。





GPB-04-20T/D20RD/M20ZU/U20SL

Worksheet marker

①⑤Distributor (slice) adjacent oil supply port upper and lower merge status mark:
U: Indicates that the oil outlet is merged with the oil supply port of the adjacent upper piece.
M: Indicates that the oil outlet is merged with the adjacent upper and lower oil feed ports at the same time.
D: Indicates that the oil supply port is merged with the adjacent lower plate oil supply port.
Blank: Indicates that it is not merged with the oil supply ports of the adjacent upper and lower parts.
②The oil supply specification code of the distributor (piece):
05——0.08ml/cy; 10——0.16ml/cy;
15——0.24ml/cy; 20——0.32ml/cy;
25——0.40ml/cy; 30——0.48ml/cy;.
35——0.56ml/cy.
③The combined status mark of the left and right oil supply ports of the distributor (piece):
S: Indicates that the left and right oil feed ports of the film are combined.
Blank: Indicates that the left and right ports are not merged.
④Distributor (piece) to oil port status mark:
T: Indicates that the left and right sides of the film are provided with oil supply ports.
Z: Indicates that the film has no oil supply port.
L: Indicates that the chip has a single outlet, and the oil supply port is set on the left side.
R: Indicates that the chip has a single outlet, and the oil supply ort is set on the right side.
⑥Cycle indicator assembly position:
L: Indicates that the piece is equipped with an indicator and is installed at the left end of the piece.
R: Indicates that the sheet is provided with an indicator and is mounted on the right end of the sheet.
Blank: Indicates that there is no indicator for this slice.

※注:

- 大于或等于规格 20T 或 20S 的阀片上，才可装循环指示器。
- 可用乘积方式表示多个相邻且相同规格的工作片，如：GPB–04–20T*3/20SL–66。
- 用户需改变进、出油管直径，请在订货时说明。
- 用户在任何情况下，不得将分配器的出油口封堵，以免超压损坏分配器。
- 工作片最少成组为3片，最多成组为10片。
- 为保证分配器的标准安装，请在安装处预留首片(或尾片)上的两个安装螺孔,待现场安装再依据实物配钻其余的两个。

※Note

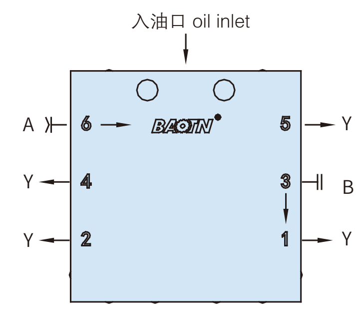
- The cycle indicator can only be installed on the valve plate with a size greater than or equal to 20T or 20S.
- Multiple adjacent work pieces of the same specification can be represented by multiplication, such as: GPB–04–20T*3/20SL–66.
- Users need to change the diameter of the inlet and outlet pipes, please specify when ordering.
- The user must not block the oil outlet of the distributor under any circumstances, so as not to damage the distributor due to overpressure.
- The minimum number of working pieces is 3 pieces, and the maximum group is 10 pieces.
- In order to ensure the standard installation of the distributor, please reserve two installation screw holes on the first piece (or tail piece) at the installation place, and then drill the remaining two according to the actual object after on–site installation.

GPC 型(Type)

BAOTN 始于2006年

油脂分配器 Progressive grease distributor

■ 递进式油脂分配器 Butter lubricating system



例：GPC-04–YYBYYA

订货编制说明 Order description

GPC –□ □ –□–□□

出油口数 Number of oil outlets

03	3 个出油口数 3 oil outlets
04	4 个出油口数 4 oil outlets
05	5 个出油口数 5 oil outlets

注：最多可设20个出油口
Note: Up to 20 oil outlets can be set

循环开关方式 Cycle switch mode

空白 Blank	不带指示棒 Without indicator stick
R	带机械式循环指示棒 With mechanical cycle indicator
M	带微动开关式循环指示器 With micro switch type cycle indicator
D	带电子式循环开关指示器 With electronic cycle switch indicator

出油口管径Outlet pipe diameter

6	接Φ6管Connected to Φ6pipe

入油口管径Enter pipe diameter

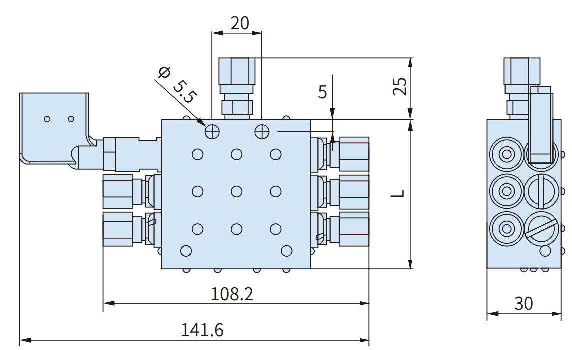
6	接Φ6管Connected to Φ6pipe
8	接Φ8管Connected to Φ8pipe

出油方式 Oil delivery method

Y	正常出油口 normal oil outlet
A	同柱塞出油口相通 Connected to the plunger outlet
B	与相邻上一出油口相通 Connected to the adjacent previous oil outlet

注:按出油口顺序排列
Note: Arranged in order of oil outlet

产品外形尺寸图
Product dimension figure



概述

整体式递进式分配器GPC可在集中润滑系统中为各润滑点提供计量润滑，具有节能、高效的优点，最多可设20个出油口，工作压力高，防尘防腐蚀，适用于恶劣环境的工况，是车辆、工程机械、机床、风力发电机、塑料机械等集中润滑的理想产品。单出口排量为0.20ml/cy，可以通过拆除堵头和钢球以及更换出油堵塞，提供0.40mlcy、0.60mlcy等整数倍排量。当润滑剂从进油口进入分配器，分配器就会以递进式的方式连续运行，并以恒定的排量注油。一旦润滑剂停止流动，分配器中的所有柱塞也将停止运动。可以通过安装特定的指示器观察一个出油口柱塞的运动，便可监测整个分配器的运行状况。一旦发生堵塞，便可实现报警。

Overview

The integral progressive distributor GPC can provide metered lubrication for each lubrication point in the centralized lubrication system, with the advantages of energy saving and high efficiency, up to 20 oil outlets, high working pressure, dustproof and anti–corrosion, suitable for harsh It is an ideal product for centralized lubrication of vehicles, construction machinery, machine tools, wind turbines, plastic machinery, etc. The single outlet displacement is 0.20ml/cy. It can provide integer multiple displacements such as 0.40mlcy and 0.60mlcy by removing the plug and steel ball and replacing the oil outlet plug. As the lubricant enters the distributor from the oil inlet, the distributor operates continuously in a progressive manner and fills with oil at a constant displacement. Once the flow of lubricant stops, all plungers in the dispenser will also stop moving. The operation of the entire distributor can be monitored by installing specific indicators to observe the movement of one outlet plunger. Once a blockage occurs, an alarm can be achieved.

技术参数 Technical parameter

- 最大工作压力：30MPa
- 标准排量：0.2ml/cy
- 工作环境温度:–20℃~+80℃
- 适用润滑剂范围(在标准温度下)：NLGI:000#–2#;≥N68号
- Maximum working pressure: 30MPa
- Standard displacement: 0.2ml/cy
- Working temperature: –20℃~+80℃
- Applicable lubricant range (at standard temperature): NLGI:000#–2#;≥N68

出油口数 Number of oil outlets	6	8	10	12	14	16	18	20
L	60	75	90	105	120	135	150	165

GPD 型(Type)

油脂分配器 Progressive butter distributor

■ 递进式油脂分配器 Butter lubricating system

订货编制说明 Order description

GPD - □□-□/······-□□

工作片数 Number of work

03	3片 pieces.
04	4 片 pieces.
05	5 片 pieces.

注：工作片数可定做3~8片
Note: The number of working pieces can be customized 3~8 pieces

循环开关方式 Cycle switch mode

空白 Blank	不带指示棒 Without indicator stick
R	带机械式循环指示棒 With mechanical cycle indicator
M	带微动开关式循环指示器 With micro switch type cycle indicator
D	带电子式循环开关指示器 With electronic cycle switch indicator

出油口管径Outlet pipe diameter

4	接Φ4管Connected to Φ4pipe
6	接Φ6管Connected to Φ6pipe

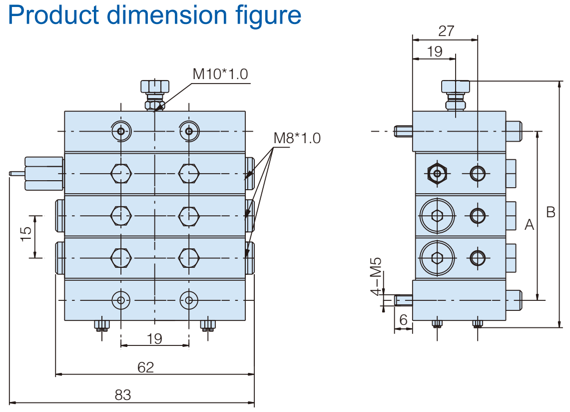
入油口管径Enter pipe diameter

6	接Φ6管Connected to Φ6pipe
8	接Φ8管Connected to Φ8pipe

工作片规格标记符
Worksheet Spec Marker

例：	D30SL

产品外形尺寸图
Product dimension figure



工作片数 number	A(mm)	B(mm)	工作片数 number	A(mm)	B(mm)
3	59.5	79.5	6	105	124
4	74.5	94.5	7	120	138.5
5	89.5	109	8	135	153.5

※ 注:A和B为理论值,由于分配器装配存在累计误差,会与实际尺寸有所出入。

※ Note: A and B are theoretical values, due to the cumulative error of the distributor assembly, May differ from actual size.

概述

GPD系列递进式分配器，是一种设计先进、结构合理的油量分配器。GPD分配器系列可以用于高压和宽温度变化的工况，它能够与手动、电动、气动泵等组成单线润滑系统，适用于各种中型机床和塑料机械设备，或大型单线润滑系统的子分配器，以及相似应用场合的理想产品。

一组典型的GPD分配器包括由一片“首片”、一片“尾片”和3至8工作片构成。通常一组分配器可提供为3至16个润滑点的润滑。GPD分配器的工作片，有各种规格的排量（详见技术规格）。双出油口工作片（在工作片的规格数值后，用T表示双出油口），有两个出油口，分别在工作片的两端；单出油口工作片（在工作片规格数值后，用S表示单出油口）有一个出油口，它可以在工作片的任一端，而另一端出油口处则需要堵塞。注意对于双出油口工作片，不能堵塞任一出油口，否则会损坏分配器，影响其正常工作。

Overview

GPD series progressive distributor is an oil distributor with advanced design and reasonable structure. The GPD distributor series can be used for high pressure and wide temperature changes. It can form a single-line lubrication system with manual, electric and pneumatic pumps, etc. It is suitable for various medium-sized machine tools and plastic machinery equipment, or sub-distribution of large single-line lubrication systems. devices, and ideal products for similar applications.

A typical set of GPD distributors consists of a "first piece", a "tail piece" and 3 to 8 working pieces. Typically a set of distributors provides lubrication for 3 to 16 lubrication points. The work piece of the GPD distributor is available in various sizes of displacement (see technical specifications for details). Double oil outlet working piece (after the specification value of the working piece, use T to indicate double oil outlet), there are two oil outlets, respectively at both ends of the working piece; single oil outlet working piece (in the working piece specification After the value, use S for single oil outlet) There is an oil outlet, which can be at either end of the working piece, and the oil outlet at the other end needs to be blocked. Note that for the double oil outlet working piece, any oil outlet cannot be blocked, otherwise the distributor will be damaged and its normal operation will be affected.

技术参数

- 最大工作压力：16MPa
- 最小启动压力：1.4MPa
- 单口标准排量：0.08ml/cy~0.32ml/cy
- 适用润滑剂范围 （在标准温度下）：润滑油≥N68号，润滑脂NLGI 000 ＃～2＃
- 工作环境温度：-20℃~+60℃（低温时应使用低温脂）
- 装有机械式循环指示器的柱塞副最高循环速率：60cy/min
- 柱塞副最高循环速率：200cy/min
- 每组分配器工作片数：3~8片
- 每组分配器可供润滑点数：3~16点
- 分配器输出的最佳管径与长度：Φ4mm长0.5~2.5m;6mm长1.2~3.5m
- 阀体材料及镀层：碳钢表面镀锌

Technical parameter

- Maximum working pressure: 16MPa
- Minimum starting pressure: 1.4MPa
- Standard displacement per port: 0.08ml/cy~0.32ml/cy
- Applicable lubricant range (at standard temperature): lubricating oil ≥ N68, grease NLGI 000 ＃～2＃
- Working environment temperature: -20℃~+60℃ (low temperature grease should be used at low temperature)
- Plunger pair with mechanical cycle indicator Maximum cycle rate: 60cy/min
- Maximum circulation rate of plunger pair: 200cy/min
- Number of working pieces of each group of distributors: 3~8 pieces
- The number of lubrication points available for each group of distributors: 3~16 points
- The optimal pipe diameter and length of the distributor output: Φ4mm long 0.5~2.5m; 6mm long 1.2~3.5m
- Body material and coating: galvanized carbon steel surface

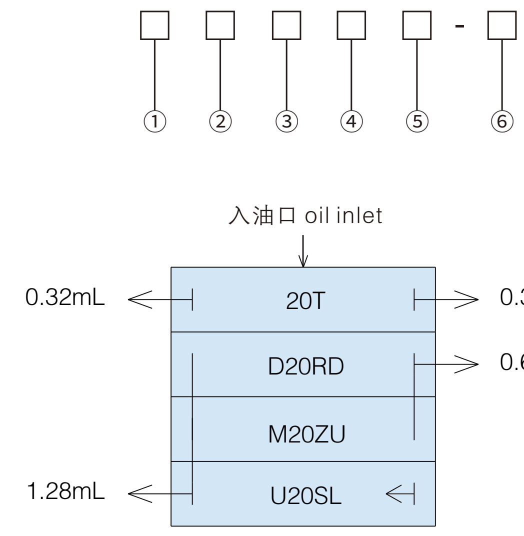
GPD 型(Type)

油脂分配器 Progressive butter distributor

■ 递进式油脂分配器 Butter lubricating system

工作片标记符

①⑤分配器（片）相邻给油口上下合并状态标记：
U：表示该出油口与相邻上片给油口合并。
M：表示该出油口与相邻上片、相邻下片给油口同时合并。
D:表示该给油口与相邻下片给油口合并。
空白:表示不与相邻下片给油口合并。
②GPD分配器（片）给油量规格代号：
05——0.08ml/cy;
10——0.16ml/cy;
15——0.24ml/cy;
20——0.32ml/cy;
③分配器（片）左右给油口合并状态标记：
S：表示该片左右给油口合并。
空白:表示左右油口不合并。
④分配器（片）给油口状态标记：
T：表示该片左、右侧均设给油口。
Z：表示该片不设给油口。
L：表示该片单出口，左侧设置给油口。
R：表示该片单出口，右侧设置给油口。
⑥循环指示器组装位置:
L 表示该片设有指示器且装在该片左端。
R：表示该片设有指示器且装在该片右端。
空白:表示该片不设指示器。。



GPD-04-20T/D20RD/M20ZU/U20SL

Worksheet marker

①⑤Distributor (slice) adjacent oil supply port upper and lower merge status mark:
U: Indicates that the oil outlet is merged with the oil supply port of the adjacent upper piece.
M: Indicates that the oil outlet is merged with the adjacent upper and lower oil feed ports at the same time.
D: Indicates that the oil supply port is merged with the adjacent lower plate oil supply port.
Blank: Indicates that it is not merged with the oil feed port of the adjacent lower piece.
②GPD distributor (piece) specification code for oil supply:
05——0.08ml/cy;
10——0.16ml/cy;
15——0.24ml/cy;
20——0.32ml/cy;
③The combined status mark of the left and right oil supply ports of the distributor (piece):
S: Indicates that the left and right oil feed ports of the film are combined.
Blank: Indicates that the left and right ports are not merged.
④Distributor (piece) to oil port status mark:
T: Indicates that the left and right sides of the film are provided with oil supply ports.
Z: Indicates that the film has no oil supply port.
L: Indicates that the chip has a single outlet, and the oil supply port is set on the left side.
R: Indicates that the chip has a single outlet, and the oil supply port is set on the right side.
⑥Cycle indicator assembly position:
L: Indicates that the piece is equipped with an indicator and is installed at the left end of the piece.
R: Indicates that the sheet is provided with an indicator and is mounted on the right end of the sheet.
Blank: Indicates that there is no indicator for this slice. .

※注:

- 大于或等于规格 20T 或 20S 的阀片上，才可装循环指示器。
- 可用乘积方式表示多个相邻且相同规格的工作片，如：GPD-04-20T*3/20SL-66。
- 用户需改变进、出油管直径，请在订货时说明。
- 用户在任何情况下，不得将分配器的出油口封堵，以免超压损坏分配器。
- 工作片最少成组为3片，最多成组为8片。
- 为保证分配器的标准安装，请在安装处预留首片(或尾片)上的两个安装螺孔,待现场安装再依据实物配钻其余的两个。

※Note

- The cycle indicator can only be installed on the valve plate with a size greater than or equal to 20T or 20S.
- Multiple adjacent work pieces of the same specification can be represented by multiplication, such as: GPD-04-20T*3/20SL-66.
- Users need to change the diameter of the inlet and outlet pipes, please specify when ordering.
- The user must not block the oil outlet of the distributor under any circumstances, so as not to damage the distributor due to overpressure.
- The minimum grouping of working pieces is 3 pieces, and the maximum grouping is 8 pieces.
- In order to ensure the standard installation of the dispenser, please reserve two mounting screw holes on the first piece (or tail piece) at the installation place, and then drill the remaining two according to the food after on-site installation.

GTB-A1 型(Type)

数显油脂润滑泵 Digital Grease lubrication pump

■ 递进式油脂润滑泵(柱塞泵) Progressive-type grease lubrication pump (piston pump)

Φ6 (主出油口)
Φ6 (Main oil outlet)
(套管帽 M10x1.0)
(Sleeve tube cap M10 × 1.0)
泵体螺纹 PT1/8
Pump body thread PT1/8

GTB-A1P3

订货编制说明 Order description

GTB-A1 □□-□□□□

压力开关 Pressure switch

P	压力开关 Pressure switch
空白 Blank	无 None

油箱容积Oil tank volume

3	3L
4	4L

电机类型Motor type

2	单相 1-phase 220V
9	DC24V

液位开关 Liquid level switch

空白 Blank	无液位开关 Liquid level switch unavailable
T	有液位开关 Liquid level switch available

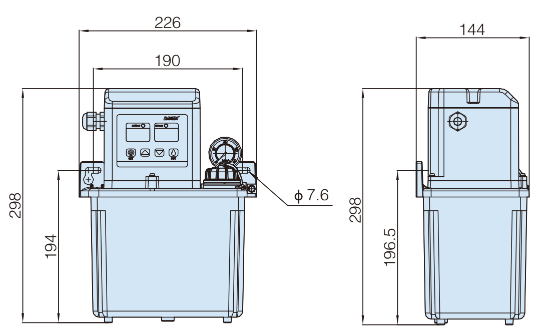
出油口管径Outlet pipe diameter

6	接Φ6管Connected toΦ6pipe

吐出量Throughout

2	200cc/min

产品外形尺寸图
Product dimension figure



性能与特点

- 系统可设定三种动作模式。
  a、润滑：开机时先执行润滑时间计时。
  b、间歇：润滑完成后执行间歇时间计时(时间单位可转换)。
  c、记忆：断电后再次送电可继续执行之前未完成的间歇时间。
- 润滑时间和间歇时间均可调整。(内没有锁键功能，可锁定设置后的润滑和间歇时间)
- 设有液位开关、压力开关(可选配)。当油量或压力不足时蜂鸣会发出报警、可将异常信号输出。a、压力不足显示Erp。b、液位不足显示Ero。
- 系统时间可设定，LUB润滑时间:1~999(秒)INT间歇时间:1~999(分)。特殊要求可订制，面板指示灯可显示出注油机的润滑和间歇状态。
- 系统使用"RST"键，可强制润滑或消除异常报警信号。
- 设有溢流阀，可保护注油机及管路由于压力过高而损坏。

Performance and characteristics

- The system is configured with 3 action modes.
  a Lubricating: when turning on, execute lubricating timing.
  b Intermittent: execute intermittent timing after lubricating is completed.
  c Memory: in case of power on after power off, resume incomplete intermittent time.
- Lubricating time and intermittent time can be adjusted. (Built-in locking function, and lubricating and intermittent time after setting is locked).
- Provided with liquid level switch and pressure switch (optional). When oil volume or pressure is insufficient, the beeper makes sound, send alarm and offers abnormal signal output.
  a When pressure is insufficient, Erp is displayed.
  b When liquid level is insufficient, Ero is displayed.
- The system time can be configured, LUB lubricating time: 1-999 (seconds), INT intermittent time: 1-999 (minutes) (tailored if specially required) The panel indicator displays lubricating and intermittent status.
- The system uses RST key to force lubricating or eliminate abnormal reporting signal.
- Overflow is provided to protect oil injector and pipeline from being damaged by high pressure.

规格型号及技术参数 Specifications, models and technical parameters

项目 Item / 型号 Models	电压 voltage(V)	功率 Power (W)	润滑时间 Lubricating time (S)	间歇时间 Intermittent time (M)	吐出口径 throughput caliber	额定吐出压 Rated throughput pressure (MPa)	最大吐出压 Maximum throughput pressure (MPa)	吐出量 Throughput (cc/min)	压力开关 Pressure Switch	油脂传感器 grease sensor	蜂鸣器 Beeper	油箱容量 Oil tank volume (L)
GTB-A1	AC220V DC24V	60W 35W	1~999	1~999	Φ6	2.0	6.0	200	有 Yes	可选配 Optional	有 Yes	3 4

GTB-C1 型(Type)

PLC 油脂润滑泵 PLC grease pump

■ 递进式油脂润滑泵(油罐式) Progressive-type grease lubrication pump (oil tank type)

Φ6 (主出油口)
Φ6 (Main oil outlet)
(套管帽 M10x1.0)
(Sleeve tube cap M10 × 1.0)
泵体螺纹 PT1/8
Pump body thread PT1/8

GTB-C1P3

订货编制说明 Order description

GTB-C1 □□-□□□□

压力开关 Pressure switch

P	压力开关 Pressure switch
空白 Blank	无 None

油箱容积Oil tank volume

3	3L
4	4L

电机类型Motor type

2	单相 1-phase 220V
9	DC24V

液位开关 Liquid level switch

空白 Blank	无液位开关 Liquid level switch unavailable
T	有液位开关 Liquid level switch available

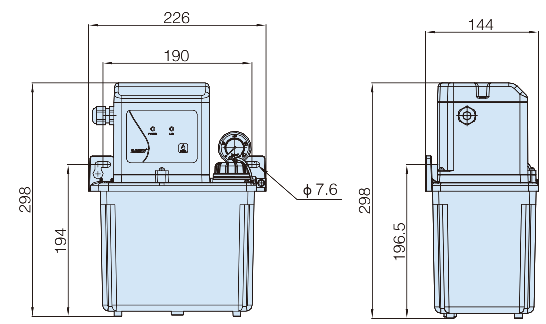
出油口管径Outlet pipe diameter

6	接Φ6管Connected toΦ6pipe

吐出量Throughout

2	200cc/min

产品外形尺寸图
Product dimension figure



性能与特点

- 设有液位开关、压力开关(可选配)。当油量或压力不足时可将异常信号输出。
- 面板指示灯可显示出注油机的通电和润滑状态。系统中设有"FEED"键，可强制润滑。
- 在容积式系统中设有脱压装置，需配合GFA/GFB/GFD/GFE分配器使用（参考53~58页）。
- 设有溢流阀，可保护注油机及管路由于压力过高而损坏。
- 内部配有保险丝防止因短路导致电流过大烧坏IC板和电机

Performance and characteristics

- Provided with liquid level switch and pressure switch (optional). When oil volume or pressure is insufficient, the beeper makes sound, send alarm and offers abnormal signal output.
- The panel indicator light indicates power and lubrication status of the oil injection mold. The system is provided with FEED key, and compulsory lubrication is applied.
- A depressurization device is provided in the positive displacement system, used with GFA/GFB/GFC/GFD/GFE distributor(refer to pages 53-58).
- Overflow is provided to protect oil injector and pipeline from being damaged by high pressure.
- Internal fuse is provided to prevent IC board and motor damaged by short circuit.

规格型号及技术参数 Specifications, models and technical parameters

项目 Item / 型号 Models	电压 voltage(V)	功率 Power (W)	润滑时间 Lubricating time (S)	间歇时间 Intermittent time (M)	吐出口径 throughput caliber	额定吐出压 Rated throughput pressure (MPa)	最大吐出压 Maximum throughput pressure (MPa)	吐出量 Throughput (cc/min)	压力开关 Pressure Switch	油脂传感器 grease sensor	蜂鸣器 Beeper	油箱容量 Oil tank volume (L)
GTB-C1	AC220V DC24V	60W 35W	须和PLC系统连接 Shall be connected to the PLC system		Φ6	2.0	6.0	200	有 Yes	可选配 Optional	无 No	3 4

GEB-1型(Type)

电动油脂润滑泵 Progressive grease lubrication pump

■ 递进式油脂润滑泵(柱塞泵) Progressive-type grease lubrication pump (piston pump)

GEB-129T

订货编制说明 Order description

GEB-1 □□□

油位检测

空白 Blank	无低油位发讯器 No low oil level transmitter
T	带低油位发讯器 With low oil level transmitter

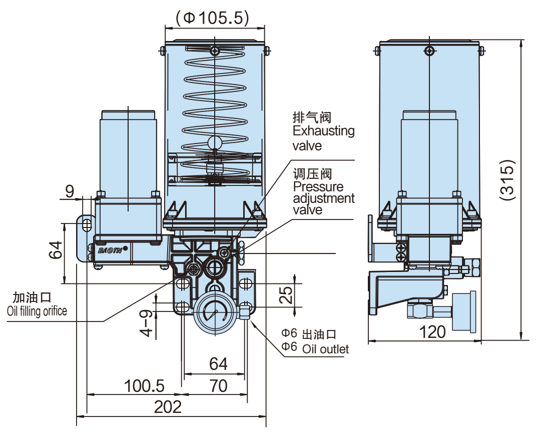
输入电压 Input voltage

1	单相 1-phase 110V
2	单相 1-phase 220V
9	DC24V

油箱容积Oil tank volume

2	2L

产品外形尺寸图
Product dimension figure



性能与特点

- 可通过主机PLC或独立控制器控制润滑泵工作周期。
- 设有调压阀装置，可自主设定润滑泵的工作压力，保障其工作安全。
- 设有排气阀装置，可排除润滑泵腔内的空气，确保润滑泵排油畅通。
- 设有低油位发讯器，常开触点或常闭触点可根据系统选择。
- 请使用加油枪通过油脂过滤器向润滑泵储油箱内添加油脂，可避免杂质，空气混入润滑系统，从而提高润滑系统使用效果 。
- 润滑系统设置压力开关，可有效监控润滑系统管路中断流，渗漏等压力不足现象。
- 采用弹簧式压油盘，真空吸油。
- 在递进式系统中无脱压阀装置，需配合GFA/GFB/GFD/GFE分配器使用（参考53~58页）。

Performance and characteristics

- The lubrication pump duty cycle can be controlled by the host PLC or a separate controller.
- It is equipped with a pressure regulating valve device, which can independently set the working pressure of the lubrication pump to ensure its safety.
- An exhaust valve device is provided to eliminate air from the lubrication pump chamber and ensure lubrication pump drain unblocked.
- With low oil level transmitter, normally open contacts or normally closed contacts can be selected according to the system.
- Use a grease gun to add grease to the lubrication pump reservoir through a grease filter to avoid impurities and air into the lubrication system to improve the lubrication system.
- The lubrication system is equipped with a pressure switch, which can effectively monitor the pipeline system to interrupt the flow, leakage and other pressure shortage phenomenon.
- A spring-loaded oil pan is used for vacuum suction.
- No pressure relief valve device in progressive system, used with GFA/GFB/GFC/GFD/GFE distributor(refer to pages 53~58).

规格型号及技术参数 Specifications, models and technical parameters

型式 model	最大吐出压力 maximum ejection pressure	吐出量 Throughput (cc/min)	出油口管径 oil outlet diameter	油箱容量 oil tank volume	电机功率 motor power	油粘度 oil viscosity
GEB-122	8.0MPa	20	Φ6	2L	35W	000#-1#
GEB-129	8.0MPa	20	Φ6	2L	25W	000#-1#

GEC-1型(Type)

电动油脂润滑泵 Progressive grease lubrication pump

■ 递进式油脂润滑泵(油罐式) Progressive-type grease lubrication pump (oil tank type)

GEC-179T

订货编制说明 Order description

GEC-1 □□□

油位检测

空白 Blank	无低油位发讯器 No low oil level transmitter
T	带低油位发讯器 With low oil level transmitter

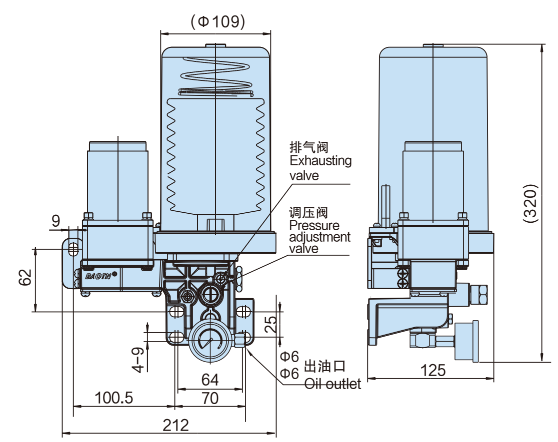
输入电压 Input voltage

1	单相 1-phase 110V
2	单相 1-phase 220V
9	DC24V

油箱容积Oil tank volume

7	0.7L

产品外形尺寸图
Product dimension figure



性能与特点

- 可通过主机PLC或独立控制器控制润滑泵工作周期。
- 设有调压阀装置，可自主设定润滑泵的工作压力，保障其工作安全。
- 设有排气阀装置，可排除润滑泵腔内的空气,确保润滑泵 排油畅通。
- 设有低油位发讯器，常开触点或常闭触点可根据系统选择。
- 润滑系统设置压力开关，可有效监控润滑系统管路中断流，渗漏等压力不足现象。
- 采用罐装式油脂,可减少杂质，混入油脂内，更换方便，且不污染环境。
- 在抵抗式系统中无脱压阀装置，需配合GFA/GFB/GFD/GFE分配器使用（参考53~58页）。

Performance and characteristics

- The duty cycle of the lubrication pump can be controlled by the main PLC or a separate controller.
- Equipped with a pressure regulating valve device, the working pressure of the lubrication pump can be independently set to ensure safe operation.
- An exhaust valve arrangement is provided to eliminate lubrication of the air in the pump chamber and to ensure that the lubrication pump drains the oil smoothly.
- For low oil level transmitters, normally open or normally closed contacts can be selected depending on the system.
- The lubrication system is equipped with a pressure switch, which can effectively monitor the pipeline system to interrupt the flow, leakage and other pressure shortages.
- The use of canned grease can reduce impurities, mix in grease, and be easy to replace without polluting the environment.
- No pressure relief valve device in resistance system,used with GFA/GFB/GFC/GFD/GFE distributor(refer to pages 53~58).

规格型号及技术参数 Specifications, models and technical parameters

型式 model	最大吐出压力 maximum ejection pressure	吐出量 Throughput (cc/min)	出油口管径 oil outlet diameter	油箱容量 oil tank volume	电机功率 motor power	油粘度 oil viscosity
GEC-172	8.0MPa	20	Φ6	0.7L	35W	000#-1#
GEC-179	8.0MPa	20	Φ6	0.7L	25W	000#-1#

GEN-1 型(Type)

电动油脂润滑泵 Progressive grease lubrication pump

■ 递进式油脂润滑泵(柱塞泵) Progressive-type grease lubrication pump (piston pump)

订货编制说明 Order description

GEN-1□□□

油位检测

空白 Blank	无低油位发讯器 No low oil level transmitter
T	带低油位发讯器 With low oil level transmitter

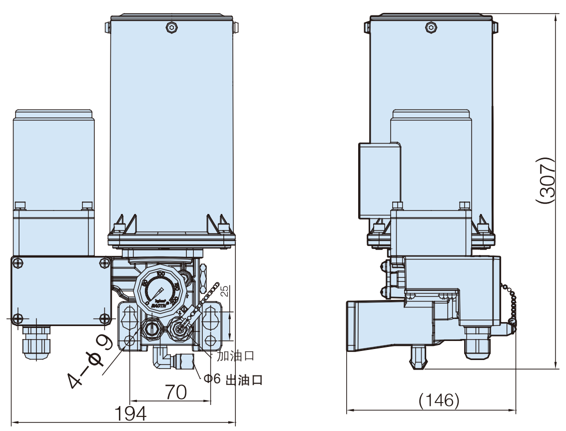
输入电压 Input voltage

1	单相 1-phase 110V
2	单相 1-phase 220V
9	DC24V

油箱容积Oil tank volume

2	2L

产品外形尺寸图
Product dimension figure



性能与特点

- 可通过主机PLC或独立控制器控制润滑泵工作周期。
- 设有调压阀装置，可自主设定润滑泵的工作压力，保障其工作安全。
- 设有排气阀装置，可排除润滑泵腔内的空气，确保润滑泵排油畅通。
- 设有低油位发讯器，常开触点或常闭触点可根据系统选择。
- 请使用加油枪通过油脂过滤器向润滑泵储油箱内添加油脂，可避免杂质，空气混入润滑系统，从而提高润滑系统使用效果 。
- 润滑系统设置压力开关，可有效监控润滑系统管路中断流，渗漏等压力不足现象。
- 采用弹簧式压油盘，真空吸油。
- 在递进式系统中无脱压阀装置，需配合GFA/GFB/GFD/GFE分配器使用（参考53~58页）。

Performance and characteristics

- The lubrication pump duty cycle can be controlled by the host PLC or a separate controller.
- It is equipped with a pressure regulating valve device, which can independently set the working pressure of the lubrication pump to ensure its safety.
- An exhaust valve device is provided to eliminate air from the lubrication pump chamber and ensure lubrication pump drain unblocked.
- With low oil level transmitter, normally open contacts or normally closed contacts can be selected according to the system.
- Use a grease gun to add grease to the lubrication pump reservoir through a grease filter to avoid impurities and air into the lubrication system to improve the lubrication system.
- The lubrication system is equipped with a pressure switch, which can effectively monitor the pipeline system to interrupt the flow, leakage and other pressure shortage phenomenon.
- A spring-loaded oil pan is used for vacuum suction.
- No pressure relief valve device in progressive system, used with GFA/GFB/GFC/GFD/GFE distributor(refer to pages 53~58).

规格型号及技术参数 Specifications, models and technical parameters

型式 model	最大吐出压力 maximum ejection pressure	吐出量 Throughout (cc/min)	出油口管径 oil outlet diameter	油箱容量 oil tank volume	电机功率 motor power	油粘度 oil viscosity
GEN-122	8.0MPa	20	Φ6	2L	35W	000#-1#
GEN-129	8.0MPa	20	Φ6	2L	25W	000#-1#

GEO-1 型(Type)

电动油脂润滑泵 Progressive grease lubrication pump

■ 递进式油脂润滑泵(油罐式) Progressive-type grease lubrication pump (oil tank type)

订货编制说明 Order description

GEO-1□□□

油位检测

空白 Blank	无低油位发讯器 No low oil level transmitter
T	带低油位发讯器 With low oil level transmitter

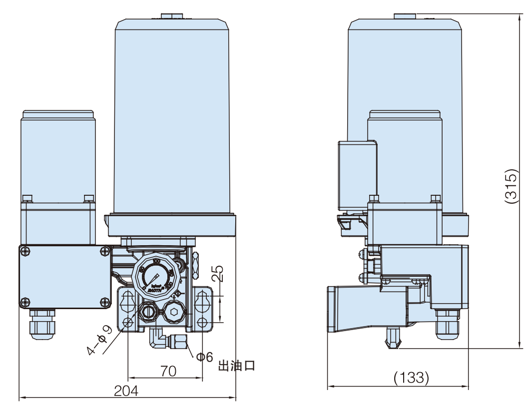
输入电压 Input voltage

1	单相 1-phase 110V
2	单相 1-phase 220V
9	DC24V

油箱容积Oil tank volume

7	0.7L

产品外形尺寸图
Product dimension figure



性能与特点

- 可通过主机PLC或独立控制器控制润滑泵工作周期。
- 设有调压阀装置，可自主设定润滑泵的工作压力，保障其工作安全。
- 设有排气阀装置，可排除润滑泵腔内的空气,确保润滑泵 排油畅通。
- 设有低油位发讯器，常开触点或常闭触点可根据系统选择。
- 润滑系统设置压力开关，可有效监控润滑系统管路中断流，渗漏等压力不足现象。
- 采用罐装式油脂,可减少杂质，混入油脂内，更换方便，且不污染环境。
- 在抵抗式系统中无脱压阀装置，需配合GFA/GFB/GFD/GFE分配器使用（参考53~58页）。

Performance and characteristics

- The duty cycle of the lubrication pump can be controlled by the main PLC or a separate controller.
- Equipped with a pressure regulating valve device, the working pressure of the lubrication pump can be independently set to ensure safe operation.
- An exhaust valve arrangement is provided to eliminate lubrication of the air in the pump chamber and to ensure that the lubrication pump drains the oil smoothly.
- For low oil level transmitters, normally open or normally closed contacts can be selected depending on the system.
- The lubrication system is equipped with a pressure switch, which can effectively monitor the pipeline system to interrupt the flow, leakage and other pressure shortages.
- The use of canned grease can reduce impurities, mix in grease, and be easy to replace without polluting the environment.
- No pressure relief valve device in resistance system,used with GFA/GFB/GFC/GFD/GFE distributor(refer to pages 53~58).

规格型号及技术参数 Specifications, models and technical parameters

型式 model	最大吐出压力 maximum ejection pressure	吐出量 Throughout (cc/min)	出油口管径 oil outlet diameter	油箱容量 oil tank volume	电机功率 motor power	油粘度 oil viscosity
GEO-172	8.0MPa	20	Φ6	0.7L	35W	000#-1#
GEO-179	8.0MPa	20	Φ6	0.7L	25W	000#-1#

GEP-1 型(Type)

电动油脂润滑泵 Progressive grease lubrication pump

■ 递进式油脂润滑泵(柱塞泵) Progressive-type grease lubrication pump (piston pump)

订货编制说明 Order description

GEP-1 □□□

油位检测 Oil level detection

空白 Blank	无低油位发讯器 No low oil level transmitter
T	带低油位发讯器 With low oil level transmitter

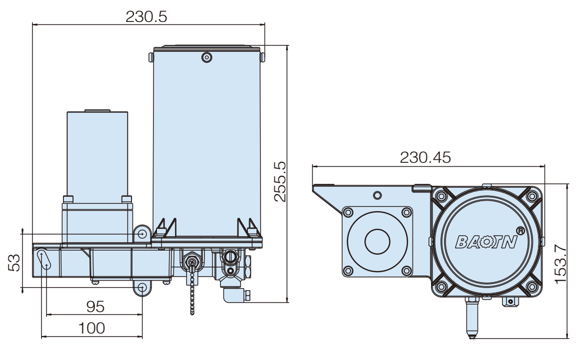
输入电压 Input voltage

1	单相 1-phase 110V
2	单相 1-phase 220V
9	DC24V

油箱容积Oil tank volume

2	2L

产品外形尺寸图 Product dimension figure



性能与特点

- 可通过主机PLC或独立控制器控制润滑泵工作周期。
- 设有调压阀装置，可自主设定润滑泵的工作压力，保障其工作安全。
- 润滑系统设置压力开关，可有效监控润滑系统管路中断流，渗漏等压力不足现象。
- 设有排气阀装置，可排除润滑泵腔内的空气,确保润滑泵排油畅通。
- 设有低油位发讯器，常开触点或常闭触点可根据系统选择。
- 采用弹簧式压油盘,真空吸油。
- 请使用加油枪通过油脂过滤器向润滑泵储油箱内添加油脂，可避免杂质，空气混入润滑系统，从而提高润滑系统使用效果。
- 在抵抗式系统中无脱压阀装置，需配合GFA/GFB/GFD/GFE分配器使用（参考53~58页）。

Performance and characteristics

- The lubrication pump duty cycle can be controlled by the host PLC or a separate controller.
- It is equipped with a pressure regulating valve device, which can independently set the working pressure of the lubrication pump to ensure its safety.
- The lubrication system is equipped with a pressure switch, which can effectively monitor the pipeline system to interrupt the flow, leakage and other pressure shortage phenomenon.
- An exhaust valve device is provided to eliminate the air in the lubrication pump chamber and ensure that the lubrication pump drains oil smoothly.
- With low oil level transmitter, normally open contacts or normally closed contacts can be selected according to the system.
- A spring-loaded oil pan is used for vacuum suction.
- Use a grease gun to add grease to the lubrication pump reservoir through the grease filter to avoid impurities and air into the lubrication system to improve the lubrication system.
- No pressure relief valve device in resistance system, used with GFA/GFB/GFC/GFD/GFE distributor(refer to pages 53~58).

规格型号及技术参数 Specifications, models and technical parameters

型式 Model	流量 flow	电压 voltage	电机功率 Motor Power	油箱容量 oil tank volume	出油口管径 oil outlet diameter	最大吐出压力 maximum ejection pressure	油粘度 oil viscosity
GEP-129T	20CC/min	单相110V	35W	2L	Φ6	8.0MPa	000#-1#
		单相220V	35W				
		DC24V	25W				

GEE-1 型(Type)

手动油脂润滑泵 Manual grease pump

■ 递进式油脂润滑泵(柱塞泵) Progressive-type grease lubrication pump (piston pump)

GEE-108R

订货编制说明 Order description

GEE - □□□ - □

出油口管径Outlet pipe diameter

空白 Blank	接Φ6管Connected to Φ6pipe
8	接Φ8管Connected to Φ8pipe
10	接Φ10管Connected to Φ 10pipe

出油口方向Oil outlet direction

空白 Blank	双出油口 Blank bi-directional oil outlet
L	左出口 Left outlet
R	右出口 Right outlet

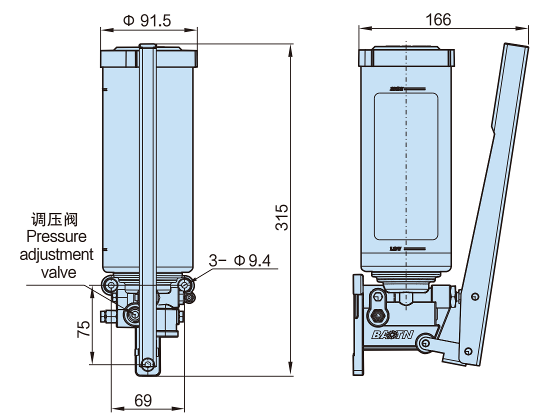
油箱容积 Oil tank volume

08	0.8升

系统类型 System Type

1	递进式 Progressive

产品外形尺寸图 Product dimension figure



规格型号及技术参数: Specifications, models and technical parameters

型号规格 Models and specifications	吐出量 Throughout (cc/min)	最大吐出压 Maximum throughput pressure (MPa)	出油口方向 Oil outlet direction	吐出口径 throughout caliber	油杯容量 volume of the oil cup (L)	重量 Weight (KG)
GEE-108L	1.2	8.0	左 or 右 left or right	Φ 6 Φ 8 Φ 10	0.8	2.0
GEE-108R						

性能与特点：

- 采用压油块，真空吸油，操作简单、方便，设有调压阀，防止润滑泵工作压力超负荷。
- 在抵抗式系统中无脱压阀装置，需配合GFA/GFB/GFD/GFE分配器使用（参考53~58页），设有放气阀，以清理泵内空气，确保排油顺畅。出油口可依据管路的安装，设于左边或右边，使用手动或电动加油枪填充黄油。

Performance and characteristics

- The oil pressurization block is adopted for vacuum oil suction, operation is simple and convenient, and adjustment valve is used to prevent over-pressure of the lubricating pump.
- No pressure relief valve device in resistance system, used with GFA/GFB/GFC/GFD/GFE distributor(refer to pages 53~58). volumetric distributor, and exhausting valve is provided to clear air in the pump to ensure barrier-free oil drainage. The oil outlet is located at the left and right sides of the pipeline, and butter is filled manually or electrically with sprayer gun.