

操作使用手册
递进式分配器
MVB系列

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始终如一，以零缺陷的产品和服务及时地满足和超越客户的期望。

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南京贝奇尔机械有限公司
NANJING BIJUR MACHINERY PRODUCTS,LTD.

地址: 南京市经济开发区(新港)恒通大道9号
服务热线: 800—8286000
电话: 025—85801188
传真: 025—85802288
邮编: 210038
网址: www.bijurdelimon.com

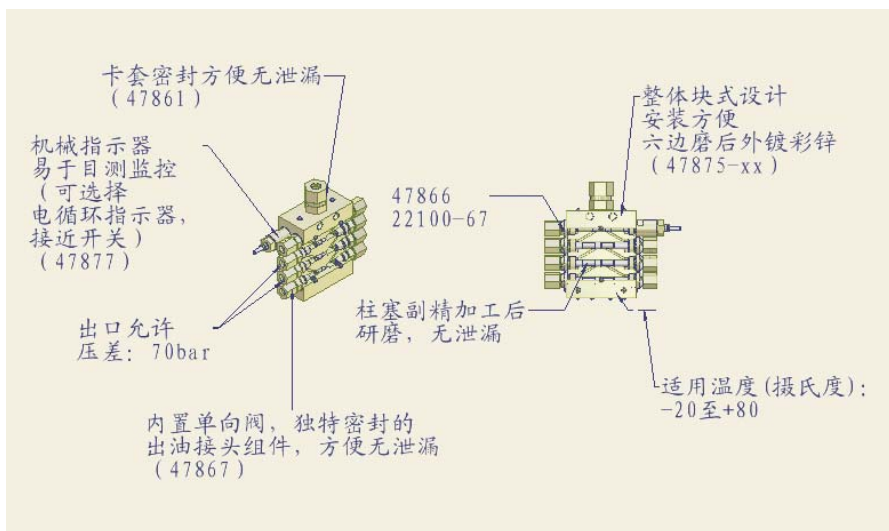
一. 概述

整体递进式分配器MVB可在小型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。是机床、各种通用机械、塑料机械、造纸机械、纺织机械、印刷包装机械，以及车辆等润滑的理想产品。

MVB递进式分配器具有以下特点：

1. 出油口润滑剂输出量精确；
2. 设计结构紧凑；
3. 安装简易方便；
4. 出油组件内置单向阀；
5. 柱塞副经精密研磨；
6. 监控组件独特。

分析图：

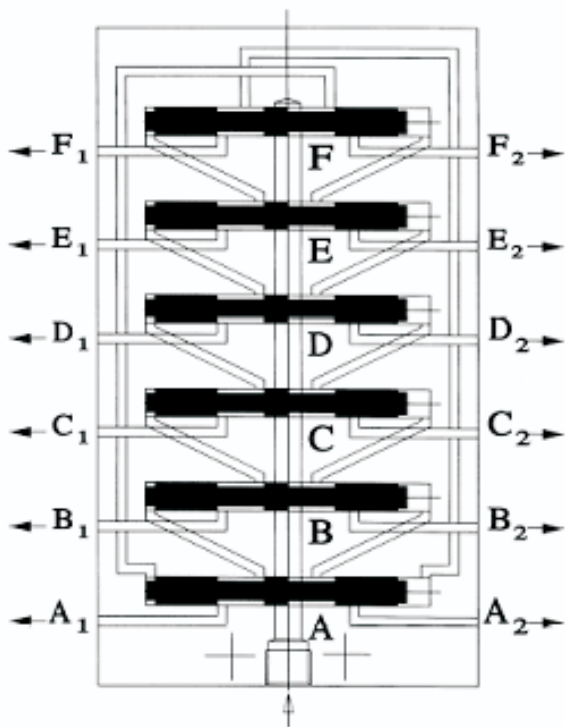


二. 工作原理

一组典型的MVB递进式分配器可提供6、8、10、12、14、16、18或20个润滑点的润滑。可提供0.17ml/cyc，通过拆除堵头和钢球以及更换出油堵塞，可提供0.34 ml/cyc，0.51 ml/cyc，等0.17ml/cyc的整数倍数的排量。柱塞套通过油孔相联，以便建立压力。只要有压力的润滑剂进入进油口，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。一旦供给的压力润滑剂流动停止了，那么分配器中的所有柱塞也就停止运动。因此，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，便会报警。

除距进油口最近的柱塞副，是将润滑剂由距进油口最远的出油口排出，阀体内其他柱塞副均是将定量的润滑剂通过相邻下一出油口排出。

如图1所示：当润滑剂从进油口进入分配器后，推动柱塞A（举例）向出油口A1的方向移动到极限位置，同时润滑剂从出油口F2排出。然后随着润滑剂在主线中的继续流动，推动柱塞B向出油口B1的方向移动到极限位置，同时润滑剂从出油口A1排出，接下来是润滑剂推动柱塞C向C1的方向移动到极限位置，同时润滑剂从出油口B1排出。依次类推。当所有的柱塞都移动到左边的极限位置后，润滑剂开始推动柱塞A向出油口A2的方向移动到极限位置，同时润滑剂从出油口F1排出。接下来是柱塞B和C开始向右边移动，同时柱塞B推动润滑剂从出油口A2排出，而柱塞C推动润滑剂从出油口B2排出。照此循环完成一个周期。一个MVB分配器至少需要三对柱塞才能正常工作。



图一

三. 技术参数与外型尺寸

1. 技术参数:

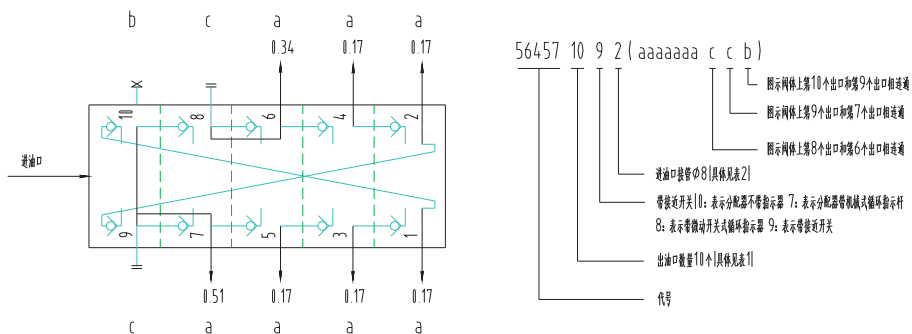
- 1.) 最大工作压力: 30MPa;
- 2.) 两出油口最大压差: 7MPa;
- 3.) 标准排量: 0.17cm³/cyc;
- 4.) 工作环境温度: -35℃~+80℃;
- 5.) 适用润滑剂范围 (在标准温度下): 润滑脂NLGI 000#-2#;
润滑油≥N68号。

6.) 如下图所示:

符号“a”表示出油口的位置

符号“b”表示将上下两个标准出油口的排量合在一起从一个出油口排出,

符号“c”表示将相邻的两个标准出油口的排量合在一起从一个出油口排出。



标记	06	08	10	12	14	16	18	20
出油口数量	6	8	10	12	14	16	18	20

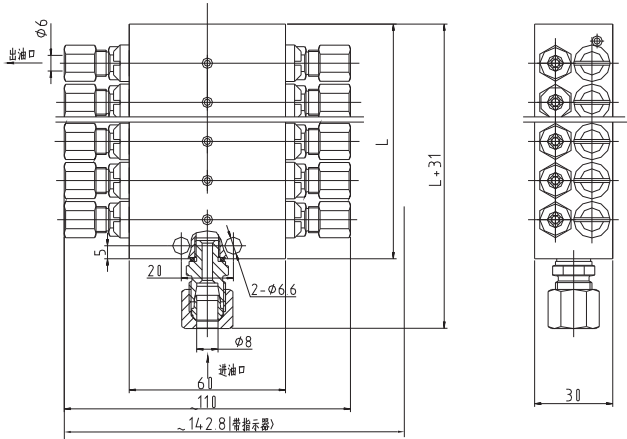
表1

标记	0	1	2	3
进油口类型	进油口是螺纹 NPT1/8	进油口接管管径 φ 6	进油口接管管径 φ 8	进油口接管管径 φ 10

表2

2. 外形尺寸:

外形图

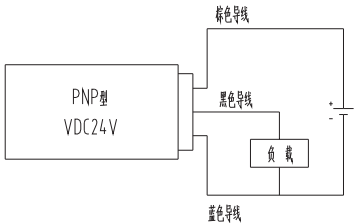


出油口数量	6	8	10	12	14	16	18	20
长度 L (mm)	60	75	90	105	120	135	150	165
重量 (Kg)	0.96	1.19	1.42	1.65	1.88	2.11	2.34	2.57

四. 安装与调试

1. 当分配器带有接近开关时，请按以下示意图接

线：



2. 分配器应安装在易于安装维护和可见之处，以便操作人员能够看见循环指示器的工作状况或其它异常情况。
3. 将分配器的进油口向上垂直进行安装方式是最佳的。因为这样易于排除夹带的空气。
4. 系统的所有油管必须清洗干净，并用洁净的高压空气吹干。
5. 由于分配器是精密的柱塞副组件，所以润滑泵的出油口须接入本公司的油（脂）过滤器。
6. 首次安装的系统，应先在系统管路中充满油（脂）后，再接入分配器，以保证排尽系统中的空气。

五. 维护与备件

1. 分配器及系统都必须使用清洁的润滑油（脂）。
2. 定期检查滤油（脂）器滤芯，发现堵塞应及时更换。
3. 分配器安装处的环境温度不宜超过80℃。
4. 每天应定时巡视各分配器的工作情况，以便出现异常情况时及时处理。
5. 当需进行维修时，拆卸阀体两端的螺塞，再小心地将柱塞取出，并将柱塞和阀体清洗干净。清洗后还需用洁净的高压气吹净阀体上的各孔。最后将柱塞涂上少许清洁的润滑油，使柱塞流畅地滑进阀体的圆柱孔内。因为分配器的柱塞与阀体是配研的，所以如维修拆柱塞，请注意柱塞对应位置和插入方向。重新装配各螺塞（锁紧扭矩22~23NM）。分配器重新装配完成后，可采用手动泵或高压充脂枪来试验维修装配的情况。如各柱塞运行良好，排油正常，则可把该分配器安装到润滑系统中再次进行工作了。
6. 易损密封件

序号	密封件代号	密封件名称	每组需用数量	备注
1	43990	Y形密封圈	1	用于循环指示器内
2	22100-67	O形密封圈	柱塞个数的两倍	用于螺塞处

BIJUR DELIMON INTERNATIONAL

OPERATOR MANUAL

MVB Progressive Distributors

Our goal is to exceed our internal and external customer expectations and to continuously improve quality products and services that are error-free, on time, every time.

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BIJUR DELIMON INTERNATIONAL

800-8286000 TOLL-FREE

025-85801188 LOCAL

025-85802288 FAX

www.bijurdelimon.com

#Hengtong road,Xingang
Econmic&Tecchnical Developmengt
Zone,Nanjing 210038,China

1.General Description

MVB progressive distributors in building-block design are applied in small-size progressive lubrication systems representing a cost-saving and efficient solution for central supply of lubricating points with relatively small pressure and small metered quantities. Ideal for machine-tools and processing machinery, mechanical engineering in general, presses of every type, plastic and paper processing machines, textile machines printing- and packaging machinery, utility vehicle industry, etc.

FEATURES

1.Precisely-measured lubricant discharge per outlet.

2.easy system lay out.

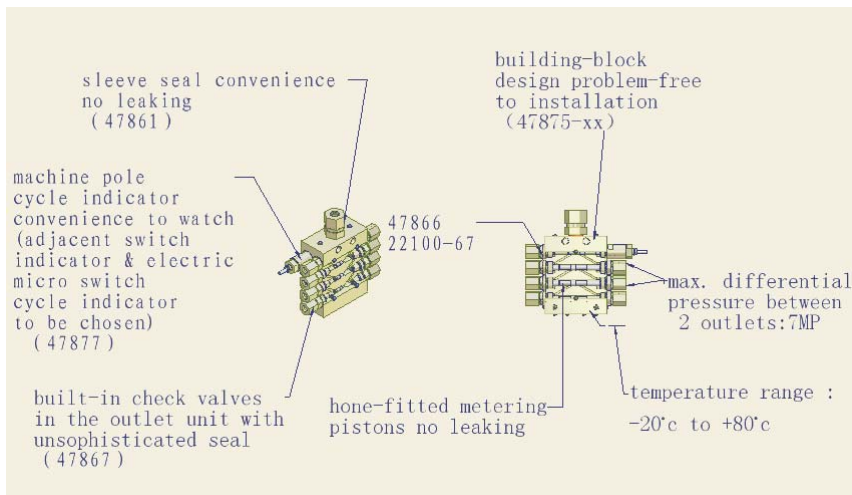
3.Proble-free installation.

4.Built-in check valves in the outlet unit.

5. Hone-fitted metering pistons.

6.Uniquecontrol and monitoring features

SCHEMATICS.



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2.Principle

MVB distributors can supply 6、8、10、12、14、16、18 or 20 lubricant points, and the standard delivery is 0.17ml/cyc, it can also supply the delivery which is 0.34 ml/cyc or 0.51ml/cyc by removing a headless pin & ball and closing the pertaining lubricating-point connection. The holes of piston guide are linked by channels so that hydraulic forced control of entire progressive distributor is ensured. The progressive distributor delivers the fed lubricant continuously in metered quantities from the lubricating-point connections until interruption of lubricant flow. Due to the hydraulic forced control, easy monitoring of the entire lubrication system is possible by monitoring one lubricating-point connection of progressive distributor respectively by special type cycle indicator to alert a blockage.

Except the piston nearest to the inlet which carries the lubricant to the farthest outlet, all the pistons carry the lubricant to the next adjacent outlet.

When lubricant is supplied to the main line connection of the progressive distributor, piston "A" (for instance) is moved in direction of outlet A1 up to the limit stop is metered to outlet F2. The delivery of lubricant is continued and piston "B" is moved in direction of outlet B1 up to limit stop, and the lubricant in front of the limit stop is carried to outlet A1. In the continued succession, piston "C" is moved in direction of outlet C1 up to the limit stop, and the lubricant in front of the limit stop is metered to outlet B1 etc.

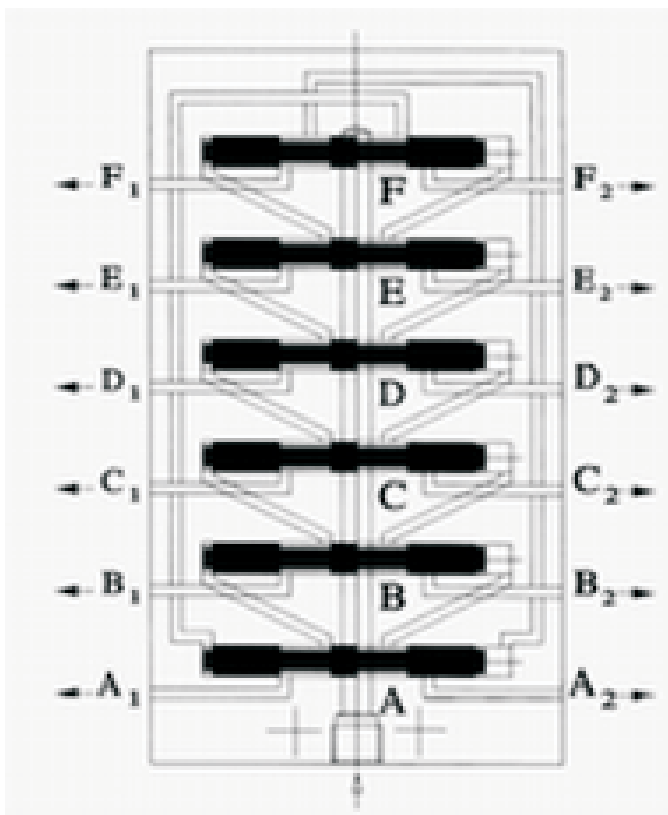
When all pistons are adjacent to the left limit stops, piston "A" is moved in direction of outlet A2 up to the limit stop, and the lubricant in front of the limit stop is metered to outlet F1.

In the time of the lubricant supply, the piston "B" and "C" moves the right limit stops, piston "B" delivers the lubricant to outlet A2, and piston "C" delivers the lubricant to outlet B2 etc.

The supply of lubricant to the outlets is effected in the same order as described, until the pistons "A" to "F" have been moved into the respective limit stop side. The functioning of the progressive distributors require at least 3 sets of pistons.

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MAP 1

3. Technical Datasheet And Outline

1) Technical Datasheet:

- a.) Operating pressure max: 30MPa;
- b.) Max. differential pressure between 2 outlets: 7MPa;
- c.) Discharge: 0.17ml3/cyc;
- d.) Temperature range: -35°C to +80°C
- e.) Compatible lubricants on mineral oil basis:

Grease lubricants up to NGL1 000#-2#

Oil ISO VG ≥N68#

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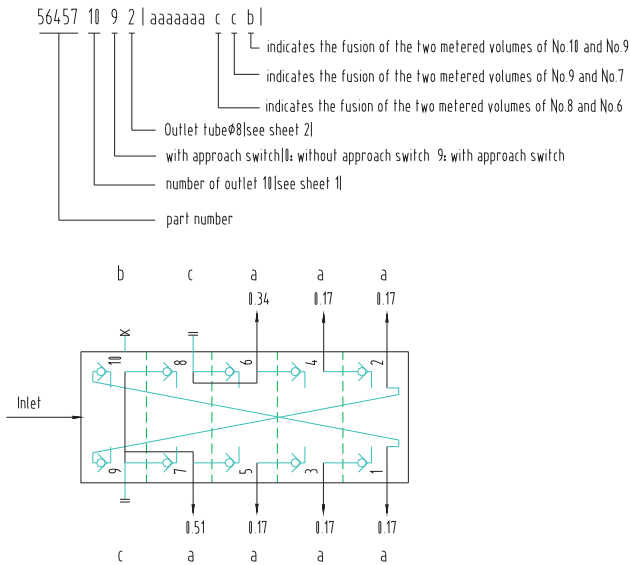
6

f.) AS the following principle shown

↓ a Symbol “a” shows the position of the outlet.

| b Symbol “b” indicates the fusion of the two metered volumes of one metering assembly group. For this, the headless pin is removed from the assembly group. For this, the headless pin is removed from the assembly group concerned.(Closure of the unused outlet by means of item no.3).

c Symbol “C” indicates the fusion of the metered volumes of neighbouring metering assembly groups (Closure of the unused outlet by means of item no.5).



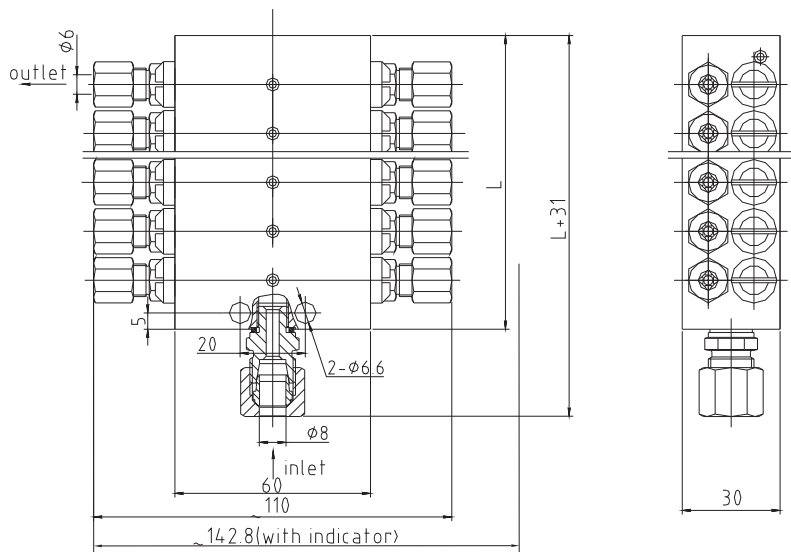
Symbol	06	08	10	12	14	16	18	20
Outlet Number	6	8	10	12	14	16	18	20

SHEET1

Symbol	0	1	2	3
Inlet Type	NPT 1/8	Ø 6	Ø 8	Ø 10

SHEET2

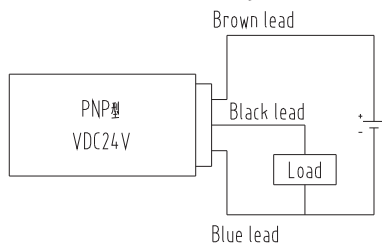
2) Outline:



Outlet Number	6	8	10	12	14	16	18	20
L (mm)	60	75	90	105	120	135	150	165
Weight (Kg)	0.96	1.19	1.42	1.65	1.88	2.11	2.34	2.57

4.Installation And Operating

1. When the progressive divider valve with electric micron switch type cycle indicator switch, please connect the electric line per the under drawing.



2. The progressive divider valve should be install on the place where operators can check easily.

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Then operators can observe the progressive divider valve conveniently.

3. Inlet should be on the top when be fixed in order to exhaust air in the line.

4. All the pipes in the system must be clean. Must used high pressure air to blow the pipe line before lubricating system work.

5. The filter should be used before the inlet because Hone-fitted metering pistons.

6. If the system is first installation, please install the distributor after the oil (grease) about the system's pipes in order to discharged all air which in the system.

5. Maintenance

1.) All the distributor and the system must use the cleanly lubricant.

2.) Check-up the filter for oil (grease) and the filter for gas on time, please replacing it if it jammed.

3.) The temperature of the place where progressive divide valve installed can't higher than 80℃.

4.) Please check-up all the distributors timing everyday in order to deal with in time if the distributors working thundering.

5.) When the valve sections need mending, disassemble all inlet adapters and outlet adapters, disassemble plug which is plugged the piston with a spanner. Wash the valve sections and pistons and blow them with clean pressure air. At last, paint a little oil on the piston. Reassemble the progressive divider valve. Piston and valve hole are whetted together one by one, so when reassemble the piston, pay attention to its position and direction, screw down the adapters (screw moment: 22~23NM). Check the progressive divider valve with a manual pump. Assemble the progressive valve into the system again if it works well.

6.) The fissile airproof pieces

Serial number	PN	name	Number per piece	Remark
1	43990	“Y” body airproof loop	1	Use for indicator
2	22100-67	“O” body airproof loop	Double of the piston	Use for plug

[illegible]