

61939-22-1 (GDR-2. 5_2-80)

滑履高低压油站

Sliding Bearing High and Low Lubrication System

使用说明书

Manual

南京贝奇尔机械有限公司

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操作前请仔细阅读产品使用说明书。不当的操作可能导致产品的损坏和人员受伤。



Please carefully read the manual. Improper operation may result in product damage and injuries.



产品检修和维护前，请切断电源。



Please cut off the power before product repair and maintenance.



接线时确保产品的外壳正确接地，否则可能会造成产品的严重损坏。



Make sure that product is properly grounded or may casue serious damage to products.

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一. 概述 (Overview)

本产品适用于有动静压轴承的磨机，回转窑电机等大型设备的稀油循环润滑系统中，其工作介质为 N100-N320 的工业润滑油。

根据动静压润滑工作原理，在启动，低速和停车时使用高压系统，正常时使用低压系统，以保证大型机械在各种不同转速运行下都能获得可靠的润滑来延长主机寿命。

稀油站的高压部分压力为 20MPa，流量为 2.5L/min。低压部分压力为 0.6 MPa；流量为 80 L/min。稀油站具有过滤，冷却，加热等功能。

This product is suitable for the thin oil circulation lubrication system of large equipment with static and static bearing, and its working medium is N100-N320 industrial lubricating oil.

According to the working principle of static and static lubrication, the high pressure system is used when starting low speed and stopping, And the low pressure system is used when normal so as to ensure that the large machinery can obtain reliable lubrication under various different speeds to extend the life of the main engine.

The high pressure part of the thin oil station has a pressure of 20MPa and a flow rate of 2.5L/min. The pressure of the low pressure part is 0.6MPa; Flow rate is 80 L/min. Thin oil station with filtration, cooling, heating and other functions.

二. 工作原理 (Working Principle)

该液压系统主要元件都采用优质产品，系统性能稳定，安全可靠。请见附件。

The main components of the hydraulic system use the high quality product. The system performance is stable, safe and reliable. Please see the attachment.

三. 技术参数 (Technical Specification)

	低压系统 Low Pressure System	高压系统 high-pressure system
流量 (L/min) Flow (L/min)	80	2.5
压力 (MPa) Pressure (MPa)	0.6	20
电机功率 (kW) Power (kW)	4	2.2
电机转速 (r/min) Speed	1440	920
油泵型号 Oil pump Model	CB-B80	2.5MCY14
油箱容积 (L) Tank (L)	1400	

出油过滤精度 (μ) Filtration (μ)	80
冷却器换热面积 (m^2) Heat Exchange Area (m^2)	12
电加热功率(kW) HeaterPower (kW)	3×4 kW

四. 安装 (Installation)

具体尺寸参见所附外形图。

See the attached outline for details.

五. 调试 (Debug)

1. 泵站安装固定后, 将泵站管路连接好。
1. after the pump station is installed and fixed, connect the pumping station pipeline.
2. 通过空气滤清器, 向油箱加入约为油箱总容积 2/3 的清洁润滑油。
2. through air filter, add clean oil which is about 2/3 of the total volume of the tank.
3. 快速启、停电机, 检查电机旋向是否是顺时针旋转 (从电机尾端看)。
3. quickly start and stop the motor to check whether the rotation of the motor is clockwise (viewed from the end of the motor).
4. 启动电机, 待泵空载运行 5 分钟后, 慢慢调节电磁溢流阀, 使得系统压力慢慢升至需要的压力。
4. Start the motor, wait for the pump to run without load for 5 minutes, slowly adjust the electromagnetic relief valve, so that the system pressure slowly rise to the required pressure.
5. 按照原理图依次调试各阀, 按照要求设定其压力值。
5. debug the valves according to the schematic diagram and set the pressure value according to the requirements.

以上步骤进行完毕后, 系统可进行正常工作

After the above steps are completed, the system can work normally.

六. 维护 (Maintenance)

1. 放尽冷却器内的剩油、剩水。
1. Dismantle all pipes connecting with coolers. Wash and dry all cooler components.
2. 拆卸与冷却器连接的全部管路, 清洗和吹干冷却器零部件。
2. Remove all pipes connected to the cooler, clean and dry the cooler parts.
3. 外露加工表面涂防锈油脂, 进、出油口用聚氯乙烯盖盖严。
3. Use anti-rust oil on outer process surface. Cover inlet and outlet with PVC plate.
4. 定期 (一般半年) 检查油封, 必要时作更换, 并改善存放条件。
4. Check oil seal condition at regular internals (half a year). If necessary, replace

it and improve storage conditions

5. 润滑冷却装置安装前在露天堆放时应防潮、防热、防雨，安装时应轻放，以免损坏设备。
5. Place lubrication cooling system in a dry and cool place before installation. Be careful during installation in order to avoid device damage.
6. 装置正常运行时，应有专职人员管理，专人操作，严禁无关人员随意搬动手柄以免发生事故。
6. Special personal shall take charge of device operation. People who are not allowed to should not rotate handles at will in case of accidents.
7. 运行时应注意并定时记录各种仪表上反映的温度、压力及压差等参数的变化，发现问题应及时处理或检验维修。
7. Record the changes of temperature, pressure and pressure differentials on all meters when in use. Deal with the problems in time.
8. 装置开始使用后过滤器压差会逐渐增加，数值达到 0.35MPa 时及时切换过滤筒，并清洗已堵塞滤芯，再装入备用，装入滤芯后充入净油至接近灌满过滤筒位置（可用取芯前放出净油）。
8. Please replace the filter bucket when its pressure differential increasing up to 0.35Mpa. Clean the blocked filter cartridge and replace a prepared one to fill in new oil at a suitable level(Leak the oil before install available one)
9. 发现系统压力与正常值相差较大时，应及时检查系统有无堵塞或其它故障，并及时排除。
9. Check whether system is blocked or other troubles and solve problems in time if system pressure value is far away from normal.
10. 若油温超出正常温度时，应检查水量，输水管道有无堵塞，冷却器是否结垢过厚，针对存在问题及时处理。
10. If oil temperature exceeds normal temperature, check water yield and make sure that water pipe is not blocked, scales in coolers are not thick. If exists, solve these problems in time.
11. 定期化验润滑油成分，当油质老化时及时更换新油。
11. Check the lubricating oil composition at regular intervals and replace old with new oil in time.
12. 装置上的各种仪表应定期校验，保证显示和反映信号的正确性，避免误操作及判断错误。
12. Verify the meters on devices to make sure the accuracy of signal display and reflection in order to avoid misoperation and misjudgement.
13. 装置运行必须与主机连锁，只有润滑冷却装置正常运行且供油压力、流量温度，清洁度符合要求时，主机才能投入运行，若装置需停止运行，应让主机停车，以免机件干摩擦造成损坏。
13. Verify the meters on devices to make sure the accuracy of signal display and reflection in order to avoid misoperation and misjudgement.
14. 各元件组成部分均严格维护保养要求进行，不得违反。
14. Maintenance process shall strictly comply with requirements and no violence.

七. 常见故障(Troubleshooting)

VII. Common Faults

序号 SN	故障现象 Failure phenomenon	产生原因 Causes	排除方法 Troubleshooting Method
1	电机启动, 建立不起压力 When the motor starts, the pressure cannot be built up.	1、电源没接好或电机反转; The power is not connected well or the motor rotates in the wrong direction; 2、压力表开关未松开; The pressure gauge switch is not released; 3、溢流阀卡死; The overflow valve gets stuck; 4、4、油泵有气 The oil pump is filled with gas; 5、5、系统有地方漏油。 Oil leaks occur in somewhere of the system.	1、检查电源线或调整电机转向。 Check the power cord or adjust the motor rotating direction; 2、2、松开压力表开关。 Release the pressure gauge switch; 3、3、清洗溢流阀。 Clean the overflow valve; 4、4、对系统进行排气。 Exhaust the system; 5、找出泄漏点, 解决泄漏问题。 Identify leaks and solve the leakage problem.
2	系统压力不稳 Instable system pressure	1、油液液面太低, 吸油不足; The oil level is too low, resulting insufficient oil absorption; 2、油液污染严重。 The oil pollution is serious.	1、加油。 Refueling; 2、更换油液或加强过滤。 Replace the oil or strengthen the filtering.
3	油温太高 Oil temperature is too high	1、电机长时间工作 The motor works for a long time; 2、溢流阀设定压力过高 The overflow valve setting pressure is too high.	1、当不使用时关闭电机。 Power off the motor when not in use; 2、将溢流阀压力调低。 Lower the overflow valve pressure.
4	系统流量太小或不稳 System flow is too small, or unstable	1、油滤器堵塞; Oil filter clogging; 2、油泵损坏。 Oil pump damage.	1、清洗过滤器。 Clean the filter. 2、更换新油泵。 Replace the new pump.

产品质量信息反馈单

Product Quality Information Feedback Sheet

用户名称 User's name			
合同编号 Contract No.			
联系人 Contacting person		电话 Tel	
通讯地址 Mailing address			
产品名称 Product name			
型号及规格 Models and Specifications		台数 Sets	
出厂日期 Date of manufacture		安装日期 Installation date	
对产品满意程度 Product satisfaction	1.满意 Satisfied	2.一般 ordinary	3.不满意 Dissatisfied
质量问题 Quality issues			
上述质量问题 对用户的影响 Impact of these problems on the user's quality	1.安装 Installation	2.调试 Debugging	3.精度 Accuracy
	6.可靠性 Reliability	7.寿命 Life	8.维护 Maintain
			9.环境 Environment
			10.其它 Others
用户要求 User's requirements	1.函电说明 Correspondence description	2.派人维修 Send personnel for service	3.协助安装调试 Installation assistance
	4.送回修理 Return for repair	5.调换 Exchange	6.退货 Return
			7.索赔 Claimant
			8.其他 Others
用户建议 或其它要求 User's recommendations or other requirements			

填表人 Preparer:

日期 Date:

说明 Remarks: (1) 本反馈单由用户填写,作为本公司提高产品质量或处理质量问题的依据之一。

The feedback sheet is filled by the user and is as one of the basis for the company to improve product quality or process quality issues

(2)“上述质量问题对用户的影响”与“用户要求”两栏,请用户选择。

The user can select “Impact of these problems on the user's quality” and “User's requirements”.

(3) 此反馈单请寄:南京贝奇尔机械有限公司 品质部

Please send this sheet to: Nanjing Bijur Machinery Co., Ltd Quality department

地址: 南京市新港开发区恒通大道9号

邮编: 210038

Address: No.9 Hengtong Road, Xingang Development Zone, Nanjing

Zip code: 210038

免费服务热线:800 828 6000

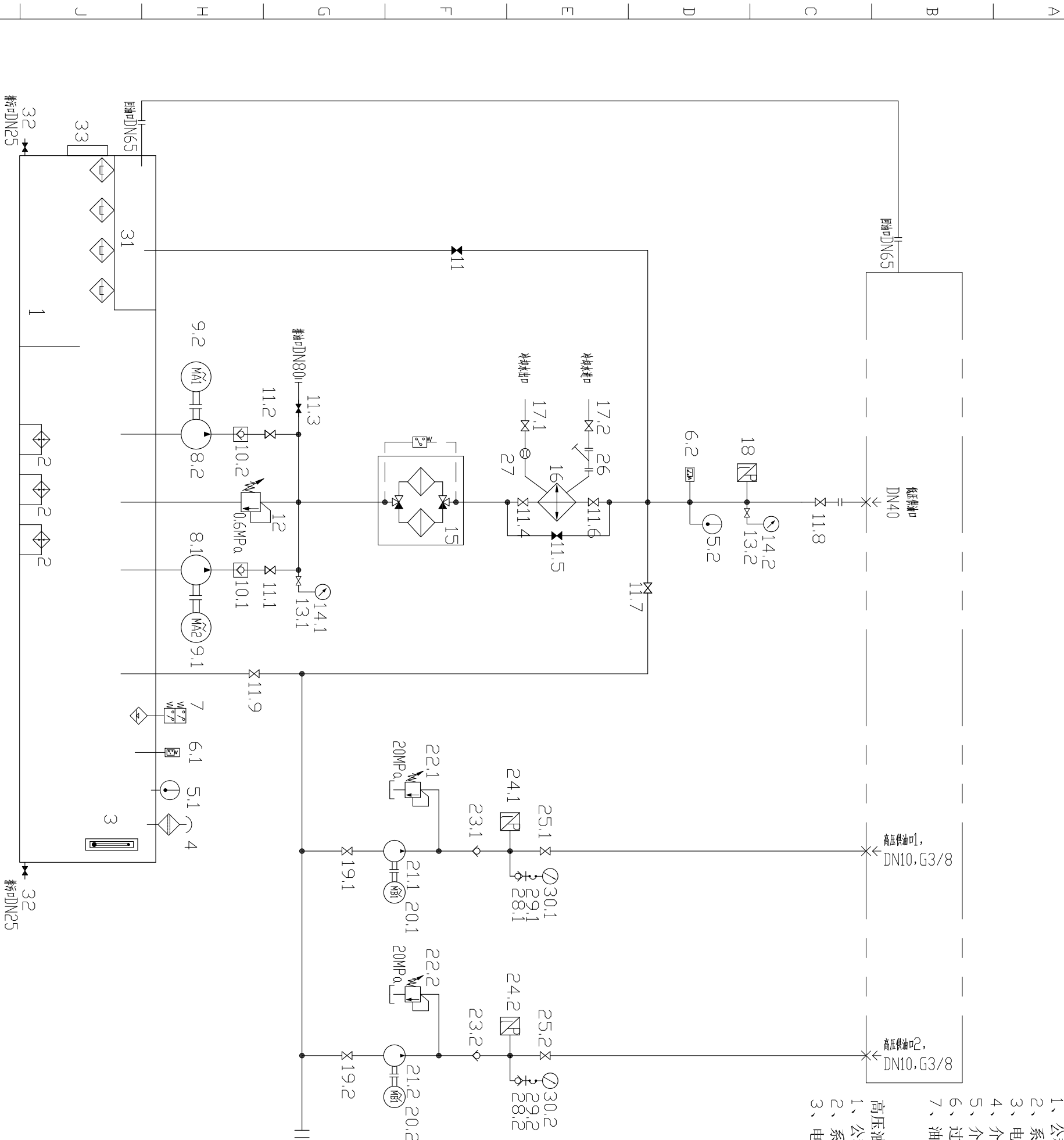
传真: 025-85802299

网址: www.bijur.com.cn

Toll-free Tel :800 828 6000

Fax: 025-85802299

Website: www.bijur.com.cn

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低压油路工作参数:

- 1、公称压力: 0.6MPa;
- 2、系统流量: 80L/min (二台泵各80L/min) ;
- 3、电机参数: 4KW/380V/50HZ;
- 4、介质粘度: N460;
- 5、介质温度: 40±5℃;
- 6、过滤精度: 0.12mm;
- 7、油箱容积: 1400L。

管冷工作参数:

- 1、冷却面积: 12m^2 ;
- 2、冷却水温度 $\leq 28^\circ\text{C}$;
- 3、冷却水压力: $0.2\text{--}0.4\text{MPa}$;

高压油路工作参数:

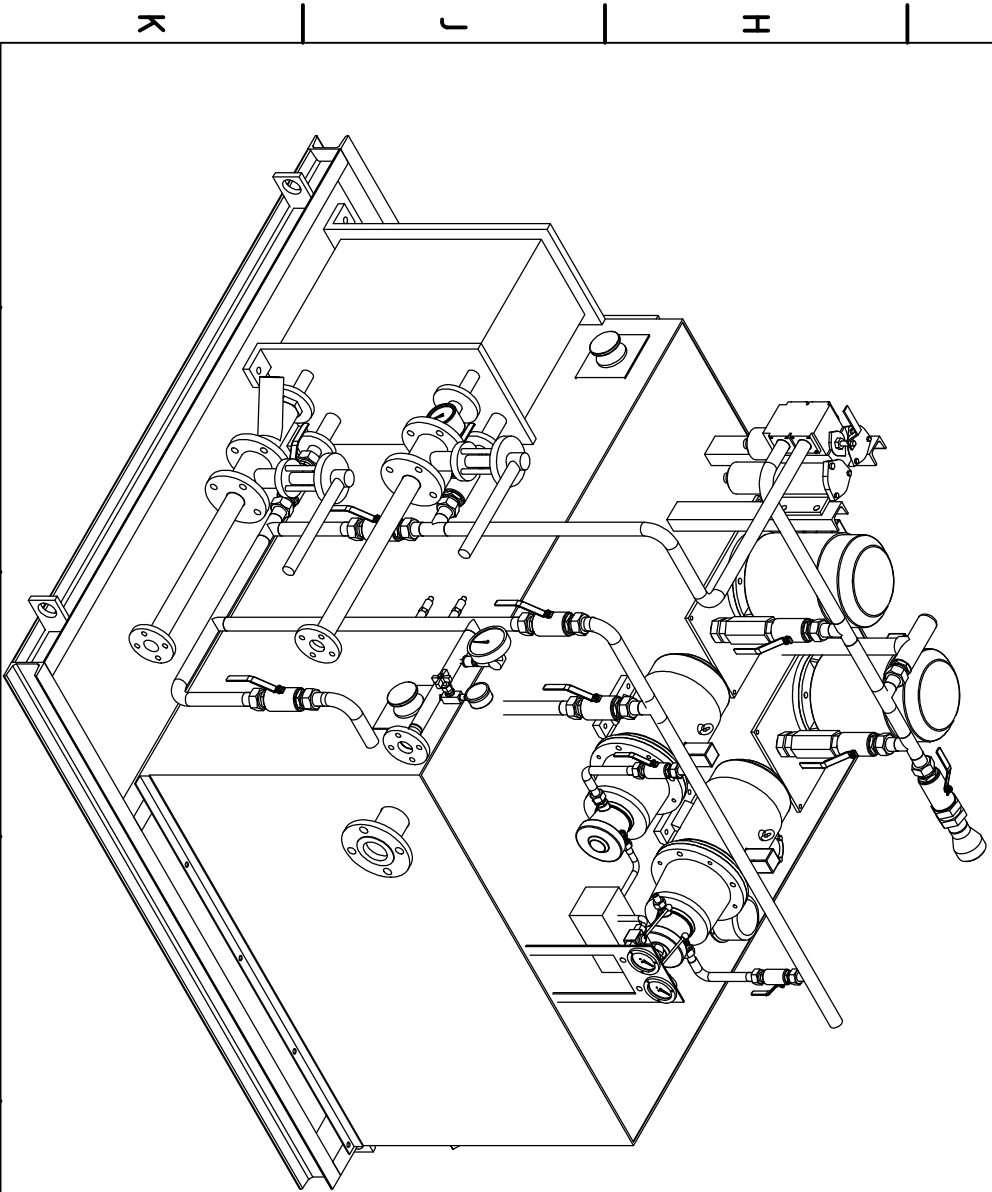
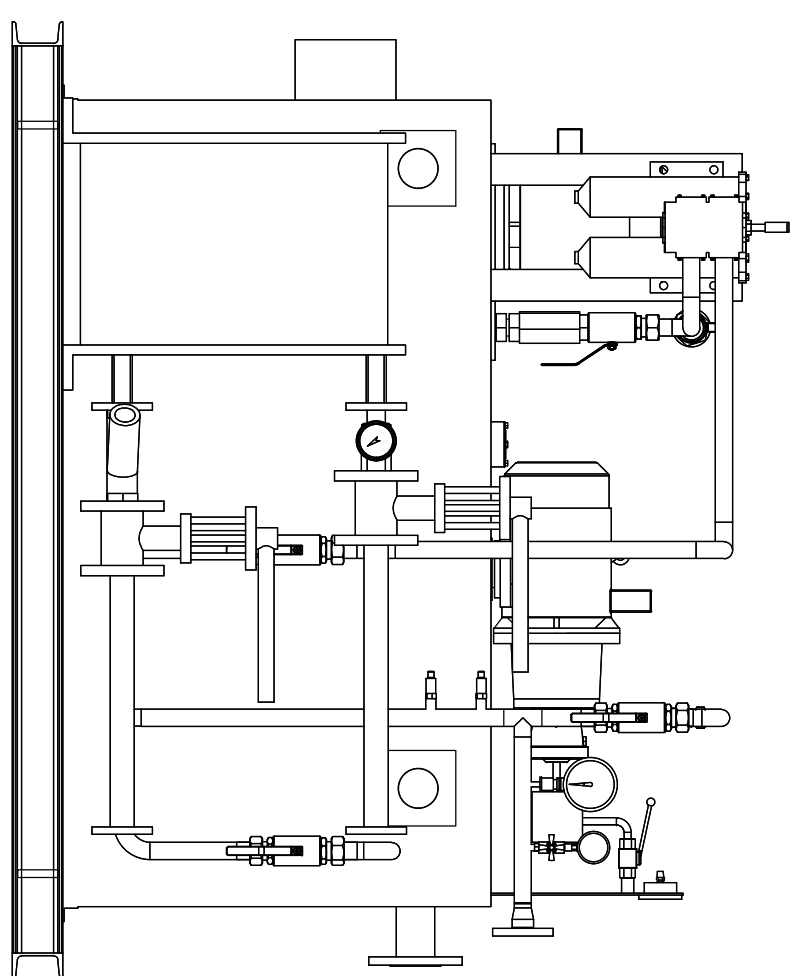
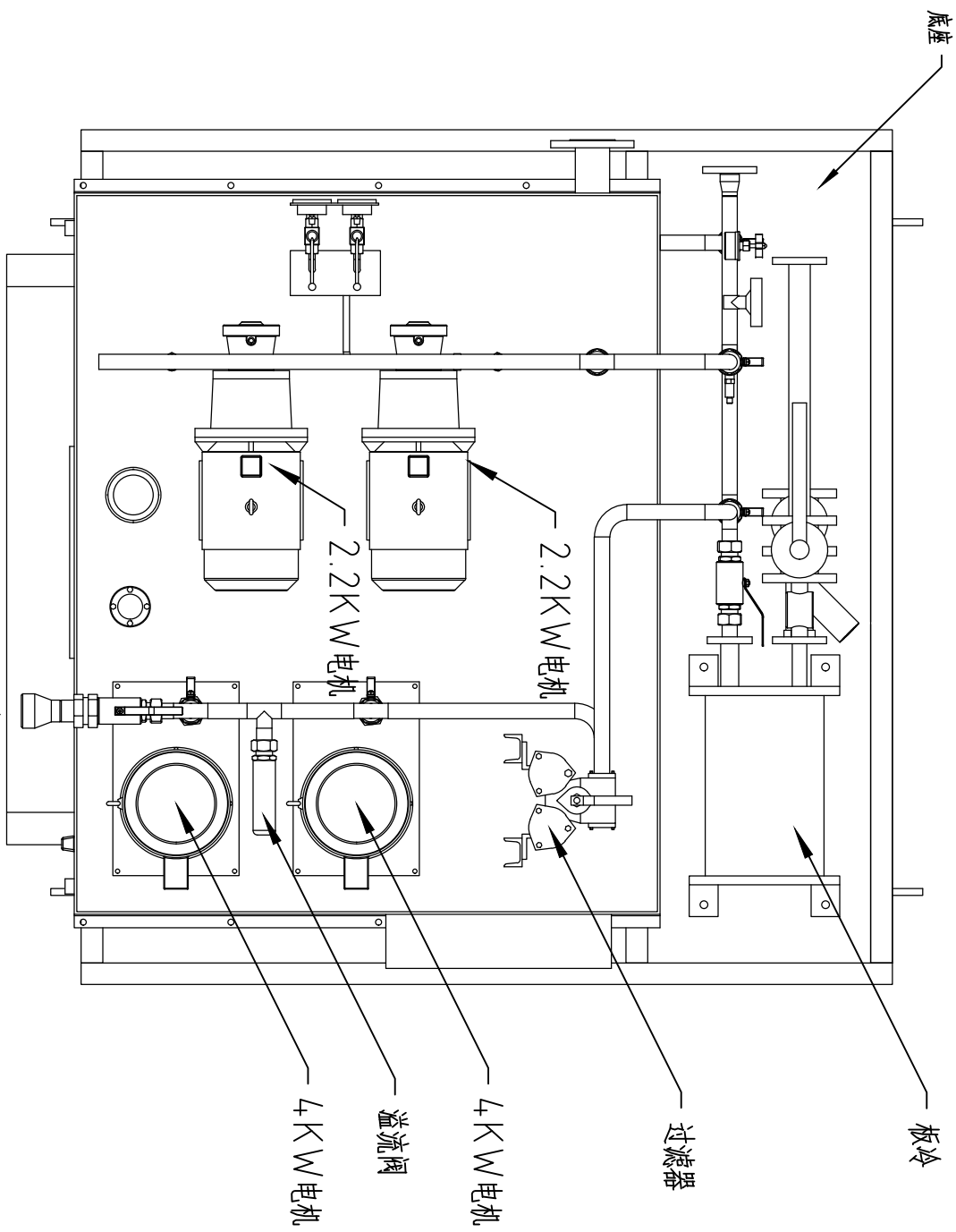
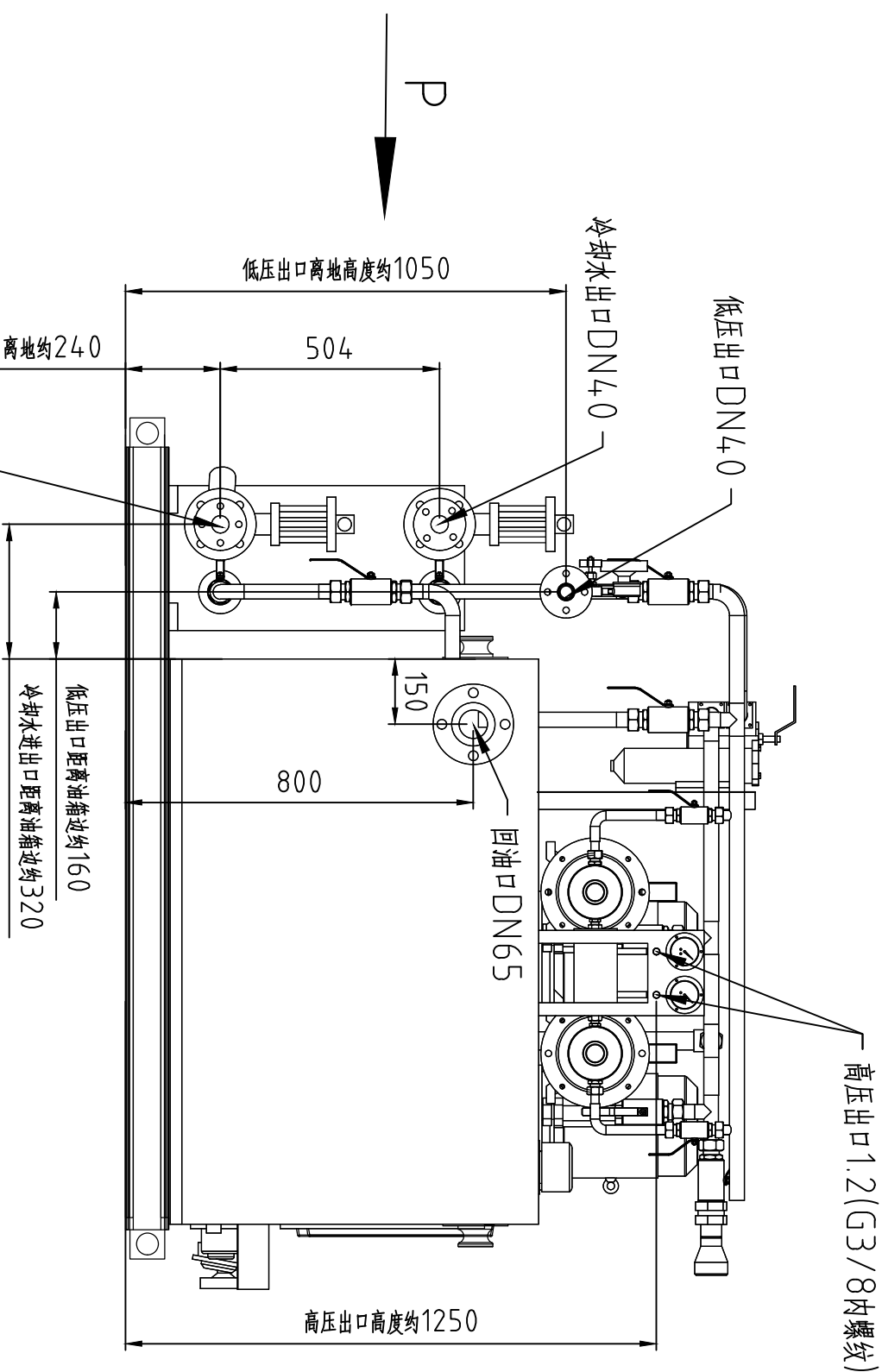
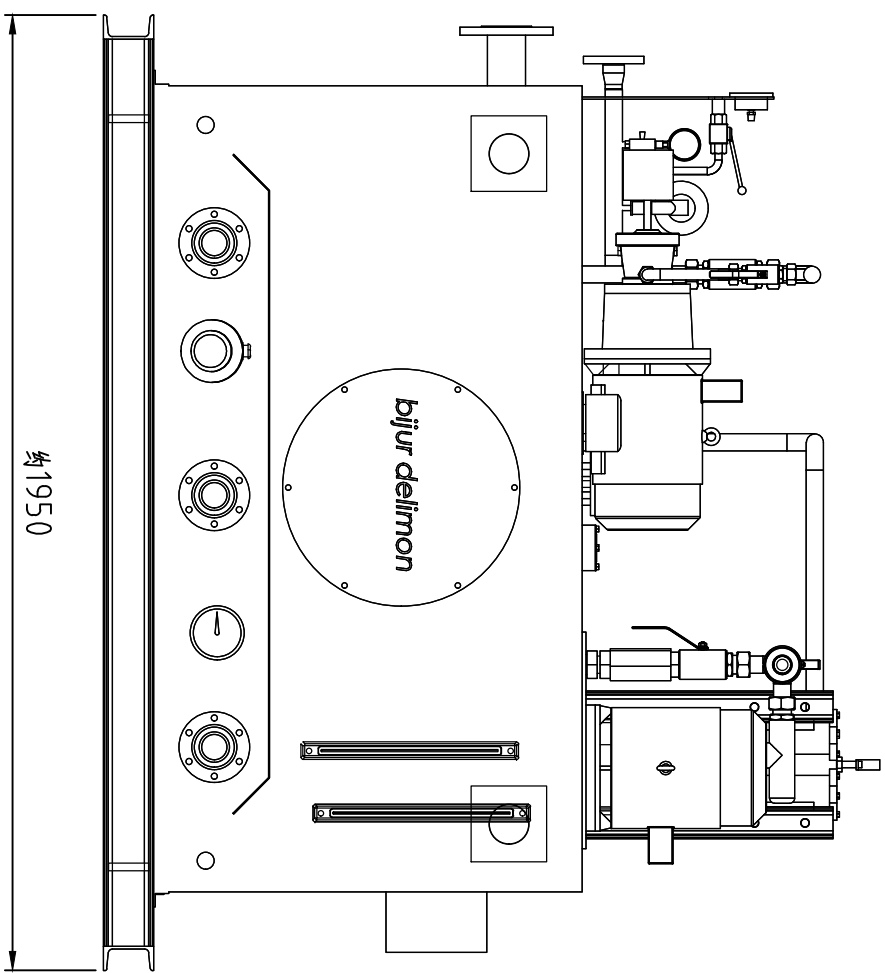
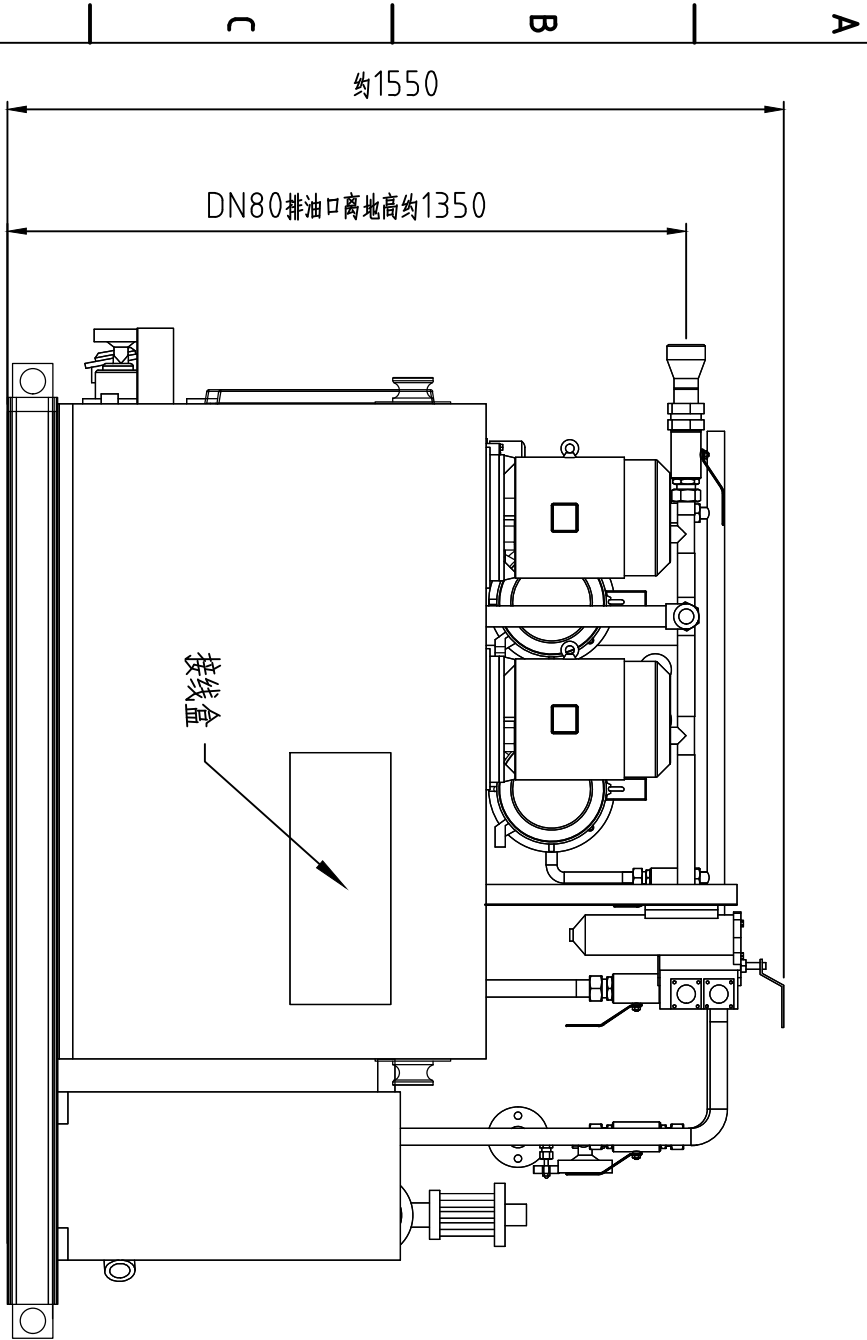
- 1、公称压力: 20MPa;
- 2、系统流量: 2.5L/min (二台泵各2.5L/min) ;
- 3、电机参数: 2.2KW/380V/50HZ。

电气参数:

- 1、电加热器：4KW/380V/50HZ，3台
- 2、温度检测：PT100；
- 3、低压压力控制模拟量：4-20mA；
- 4、压差控制开关量：DC24V；
- 5、高压压力控制模拟量：4-20mA；
- 6、液位控制：DC24V；

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A2	R+	精度	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		公差	公差	公差	公差	公差	公差	公差	公差	公差	公差	公差	公差	公差	公差	公差	公差	公差



南京贝奇尔机械有限公司	版本号	数量	重量	比例	METRIC (MM)
	设计	审核	批准	1:15	
	日期	日期	日期		
	共1页	第1页			