

尊敬的顾客

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我们的宗旨是不断地改进和完善公司的产品，因此您所使用的仪器可能与使用说明书有少许差别。若有改动，我们不一定能通知到您，敬请谅解！如有疑问，请与公司售后服务部联络，我们定会满足您的要求。



由于输入输出端子、测试柱等均有可能带电压，您在插拔测试线、电源插座时，会产生电火花，小心电击，避免触电危险，注意人身安全！

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1. 慎重保证

本公司生产的产品，自发货之日起三个月内，如产品出现缺陷，实行包换。一年（包括一年）内如产品出现缺陷，实行免费维修。一年以上如产品出现缺陷，实行有偿终身维修。

2. 安全要求

请阅读下列安全注意事项，以免人身伤害，并防止本产品或与其相连接的任何其它产品受到损坏。为了避免可能发生的危险，本产品只可在规定的范围内使用。

只有合格的技术人员才可执行维修。

—防止火灾或人身伤害

使用适当的电源线。只可使用本产品专用、并且符合本产品规格的电源线。

正确地连接和断开。当测试导线与带电端子连接时，请勿随意连接或断开测试导线。

产品接地。本产品除通过电源线接地导线接地外，产品外壳的接地柱必须接地。为了防止电击，接地导体必须与地面相连。在与本产品输入或输出终端连接前，应确保本产品已正确接地。

注意所有终端的额定值。为了防止火灾或电击危险，请注意本产品的所有额定值和标记。在对本产品进行连接之前，请阅读本产品使用说明书，以便进一步了解有关额定值的信息。

请勿在无仪器盖板时操作。如盖板或面板已卸下，请勿操作本产品。

使用适当的保险丝。只可使用符合本产品规定类型和额定值的保险丝。

避免接触裸露电路和带电金属。产品有电时，请勿触摸裸露的接点和部位。

在有可疑的故障时，请勿操作。如怀疑本产品有损坏，请本公司维修人员进行检查，切勿继续操作。

请勿在潮湿环境下操作。

请勿在易爆环境中操作。

保持产品表面清洁和干燥。

一 安全术语

警告：警告字句指出可能造成人身伤亡的状况或做法。

小心：小心字句指出可能造成本产品或其它财产损坏的状况或做法。

目录

一、产品原理 Product Principles	5
二、用途及特点: Purpose and characteristics.....	5
三、安装与试机: Installation and testing.....	6
四、操作及使用说明: Operation and usage instructions	7
五、保养: maintenance.....	12
六、带电作业的步骤: Steps for live working.....	13
七、故障及消除方法: Faults and elimination methods.....	14
设备装箱清单	17

一、产品原理 **Product Principles**

UHV 系列双级真空滤油机在工作时，油液在压差的作用下经入口进入初滤器，大颗粒杂质被滤除，含有微粒杂质的油液经加热器升温后进入真空罐，在极低的真空压力和脱气元件的作用下，油中的水汽溃破油膜而析出，水分迅速蒸发，然后被真空系统排出或在冷却器中冷凝成水，除去水汽的油液被排油泵输入前级过滤及高精滤器除去微粒杂质即为净化油，完成净化全过程。

When the UHV series dual stage vacuum oil filter is in operation, the oil enters the primary filter through the inlet under the pressure difference. Large particle impurities are filtered out, and the oil containing particle impurities enters the vacuum tank after being heated by the heater. Under the extremely low vacuum pressure and degassing element, the water vapor in the oil breaks through the oil film and precipitates, causing rapid evaporation of water. It is then discharged by the vacuum system or condensed into water in the cooler, The oil that removes water vapor is fed into the front stage filter by the exhaust pump and the fine filter to remove particulate impurities, completing the entire purification process.

二、用途及特点: **Purpose and characteristics**

用途: 广泛适用于电厂、电站、电力公司、冶金、石化、机械、交通、铁路等行业，特别适合于变压器厂、110KV 以上大型变电站、变压器现场检修及高等级新油、进口油、互感器油、超高压变压器油等绝缘油的快速深度净化处理。适合于安装和检修大型变压器时的油处理、变压器真空注油及热油循环干燥等。该系列机型在高海拔地区使用更显优势。

Purpose: It is widely used in power plants, power stations, power companies, metallurgy, petrochemical, machinery, transportation, railway and other industries, especially in transformer plants, large substations above 110KV, on-site maintenance of transformers, and rapid and deep purification treatment of high grade new oil, imported oil, transformer oil, ultra-high voltage transformer oil and other insulating oils. Suitable for oil treatment, vacuum oil

injection, and hot oil circulation drying during installation and maintenance of large transformers. This series of models has more advantages when used in high-altitude areas.

特点：characteristic

- 。高真空，大抽速，国际领先的环形立体复式闪蒸技术和微克技术的结合，能高效快速的脱去水分、溶解水的微水、游离碳、气体等有害成分。

High vacuum, large pumping speed, the combination of internationally leading annular three-dimensional compound flash technology and microgram technology can efficiently and quickly remove moisture, micro water of dissolved water, free carbon, gas and other harmful ingredients.

- 。采用多层高分子网状过滤与强磁静电吸附相结合的除杂技术，过滤面积大，纳污能力强，过滤精度高， $\beta_3 \geq 1000$.

The impurity removal technology combines multi-layer polymer mesh filtration with strong magnetic and electrostatic adsorption, with a large filtration area, strong pollutant holding capacity, and high filtration accuracy, with a diameter of ≥ 1000

- 。复式三位一体保护装置能使高低油位自动保护，红外线探测自动消泡，自动液位控制，自动恒温，自动压力保护，自动化程度高，操作灵敏可靠。
- 。特别适用安装或检修现场对 110KV 以上的输变设备的真空注油，大型抽真空和真空干燥。

The dual trinity protection device can automatically protect high and low oil levels, infrared detection for automatic defoaming, automatic liquid level control, automatic constant temperature, automatic pressure protection, high degree of automation, and sensitive and reliable operation.

- 。在线滤油，可无人值守，运行状态由指示灯显示。

Online oil filtration, can be unmanned, and the operating status is displayed by an indicator light.

- 。人性化设计，噪音低，操作简单，维护间隔长，低能耗节省运行成本。

Humanized design, low noise, simple operation, long maintenance interval, low energy consumption, and saving operating costs

三、安装与试机：Installation and testing

安装 install

1、本机应安放在水平地面上，平稳放置。

This machine should be placed on a level ground and placed smoothly.

2、由于本机采用移动式，用户不需要另行设计安装基础，只需将本机移到油罐附近的平地上即可。

Due to the use of mobile devices, users do not need to design and install a separate foundation. They only need to move the device to a flat ground near the oil tank.

3、电源进线的选用，必须能承受本机的最大电流。

The selection of the power input line must be able to withstand the maximum current of the machine.

试机 Test machine

1、关闭本机所有阀门，接上进出油管，保证油罐到本机进出口油路畅通。

Close all valves of the machine, connect the inlet and outlet oil pipes, and ensure that the oil tank is unobstructed from the inlet and outlet of the machine.

2、正确无误地接好三相四线电源。

Connect the three-phase four wire power supply correctly and correctly.

3、启动真空泵、排油泵，注意观察真空泵、排油泵旋转方向是否正确，以及真空泵-电机、油泵-电机有无卡阻现象。

Start the vacuum pump and oil drain pump, and observe whether the rotation direction of the vacuum pump and oil drain pump is correct, as well as whether the vacuum pump motor and oil pump motor are stuck.

4、检查温控仪与加热器是否联锁，即温控仪控制加热器，只能在一瞬间完成。Check if the temperature controller is interlocked with the heater, that is, the temperature controller can only control the heater in an instant.

5、关闭与大气相连的阀门，开启管路阀门，启动真空泵，在真空表指示最大真空度数值稳定后，停泵5分钟，其间观察真空表指针下降不应超过0.001Mpa，否则应当消除漏气部位。

Close the valve connected to the atmosphere, open the pipeline valve, start the vacuum pump, and after the maximum vacuum value indicated by the vacuum gauge stabilizes, stop the pump for 5 minutes. During this time, observe that the decrease in the vacuum gauge pointer should not exceed 0.001 Mpa, otherwise the leaking area should be eliminated.

四、操作及使用说明：Operation and usage instructions

操作步骤 Operating Steps

1. 准备铜芯的电缆线，三相四线，零线可以细点。打开电控柜，电控柜右下方接 上线，L1、L2、L3 接火线，N 接零线。打开急停按钮，电控柜里所有断路器都打开。然后在点击输油泵启动按钮再关闭（按钮）。看油泵转动方向是否正确，如果油泵转动方向是反的（油泵上有指示方向）然后将 L1、

L2、L3 任意两者调换即可。

1. Prepare copper core cables, three-phase four wire, and zero wire can be fine. Open the electric control cabinet, Connect the lower right part of the electric control cabinet to the live wire, L1, L2, L3 to the live wire, and N to the neutral wire. Turn on the emergency stop button and all circuit breakers in the control cabinet will be opened. Then click on the start button of the oil pump and then turn it off (button). Check if the rotation direction of the oil pump is correct. If the rotation direction of the oil pump is opposite (indicated on the oil pump), then switch between L1, L2, and L3.

注意:调整电机方向只能启动油泵调节。不要启动真空泵, 真空泵反转时间稍长, 容易卡死损坏。油泵方向对的真空泵方向就是对的。特别注意!! Attention: Adjusting the motor direction can only activate the oil pump adjustment. Do not start the vacuum pump, vacuumThe pump has a slightly longer reversal time and is prone to jamming and damage. The direction of the vacuum pump opposite the direction of the oil pump isThat's right. Special attention!!

2.连接上进油管 and 出油管。

Connect the upper oil inlet and outlet pipes.

3.除了设备上的真空截断阀和排水截断阀开启以外, 所有球阀关闭, 启动真空泵, 观察真空罐上真空表上升情况, 当达到-0.06MPa 时, 开启进出油球阀。

Except for the vacuum shut-off valve and drainage load shut-off valve on the equipment, all ball valves are closed. Start the vacuum pump, observe the rise of the vacuum gauge on the vacuum tank, and when it reaches -0.06MPa, open the inlet and outlet ball valves.

4.根据自己油液情况, 选择是否加热。如需加热。需要将最高温度设置好。设置方法: 点击一次设置键, 温控显示仪下方绿色字体闪烁, 再通过上下键来调节(出厂设置为 60) 最后再按一次设置键。(温控显示仪红色数字为实际温度, 绿色数字为设置温度)

Choose whether to heat according to your own fluid condition. If heating is required. The maximum temperature needs to be set. Setting method: Click the setting button once, the green font below the temperature control display will flash, and then use the up and down buttons to adjust (factory set to 60). Finally, press the setting button again. (The red number on the temperature control display indicates the actual temperature, while the green number indicates the set temperature)

5.设备开始在进油, 油液从进油阀--粗滤器-加热器-真空分离罐, 根据油液的粘度情况不同, 大约 30S-40S.可以从真空罐玻璃视镜能看油液喷出。打开加热器开关(如油液不需要除水不需要开加热器)。油液进入到真空罐后, 可以从真空罐下端的玻璃液位计看到进油的情况。当油液液位到达液位上线浮球的时候, 进

油电磁阀关闭，输油泵会自己启动，将油液从真空罐里输出，经过精滤器--出油阀排除。说明：真空罐有上下浮球阀，当油位到上液位浮球时进油电磁阀关闭输油泵启动，油位低于上液位浮球时进油电磁阀打开，油位低于下液位浮球时输油泵停止。

The equipment starts to feed oil, and the oil flows from the inlet valve - coarse filter - heater - vacuum separation tank. Depending on the viscosity of the oil, it is approximately 30S-40S. The oil can be seen spraying out from the vacuum tank glass mirror. Turn on the heater switch (if the oil does not require water removal and the heater does not need to be turned on). After the oil enters the vacuum tank, the oil can be seen from the glass level gauge at the bottom of the vacuum tank. When the oil level reaches the floating ball above the liquid level, the oil inlet solenoid valve is closed, and the oil delivery pump will start on its own, outputting the oil from the vacuum tank and discharging it through the fine filter - oil outlet valve. Explanation: The vacuum tank has upper and lower floating ball valves. When the oil level reaches the upper liquid level floating ball, the oil inlet solenoid valve is closed and the oil transfer pump starts. When the oil level is lower than the upper liquid level floating ball, the oil inlet solenoid valve is opened. When the oil level is lower than the lower liquid level floating ball, the oil transfer pump stops.

6.水蒸气从真空罐-强风冷却器-冷凝器（部分冷凝成水）--水罐。部分水蒸气以气体的形式从真空泵排气孔排出。

Water vapor flows from the vacuum tank, strong air cooler, condenser (partially condensed into water), to the water tank. Part of the water vapor is discharged in the form of gas from the exhaust hole of the vacuum pump。

7.液位平衡原理：当油液进入到真空罐，油液位到液位上限浮球时油泵自动开始启动，油液下降到液位下线浮球油泵自动停止。如果油液高于液位上线浮球时，进油电磁阀自动关闭，低于液位上线浮球时，进油电磁阀又自动打开。

Liquid level balance principle: When the oil enters the vacuum tank and the oil level reaches the upper limit of the float ball, the oil pump automatically starts to start, and when the oil level drops to the lower limit of the float ball, the oil pump automatically stops. If the oil level is higher than the upper floating ball, the oil inlet solenoid valve will automatically close. If it is lower than the upper floating ball, the oil inlet solenoid valve will automatically open again.

8.加热器自动控制原理：加热器启动需要输油泵启动、低于设定的温度条件下，加热器工作。当输油泵停止或温度高于设定温度时，加热器自动停止加热。

The principle of automatic control of the heater: The heater needs to be started by the oil delivery pump, and the heater works under the set temperature conditions. When the oil pump stops or the temperature exceeds the set

temperature, the heater automatically stops heating.

9.当油液过滤完成，需要停机，首先关闭加热器，让油液循环 3-5 分钟，然后关闭进油阀，停止真空泵，打开真空分离器上的排气阀，启动输油泵，将真空罐里油液抽完，停止油泵。（在真空泵启动的条件下，真空罐油液到达上限油泵才能自己启动，手动是启动不了的。只有停止 真空泵，手动才能启动油泵）

When the oil filtration is completed and the machine needs to be shut down, first turn off the heater and allow the oil to circulate for 3-5 minutes. Then, close the oil inlet valve, stop the vacuum pump, open the exhaust valve on the vacuum separator, start the oil delivery pump, pump out all the oil in the vacuum tank, and stop the oil pump. (Under the condition of starting the vacuum pump, the oil pump in the vacuum tank can only start by itself when the oil reaches the upper limit, which cannot be started manually. Only by stopping the vacuum pump can the oil pump be started manually.)

10.在滤油的过程中，遇到紧急情况，可立即关闭紧急按钮，打开真空罐真空渗气阀卸掉真空关闭加热器，排除故障。注意：遇到故障一定记得关加热器，否则容易引起加热器无油而空烧损坏。切记！

During the oil filtration process, if encountering an emergency situation, the emergency button can be immediately turned off, the vacuum leakage valve of the vacuum tank can be opened, the vacuum can be removed, and the heater can be turned off to troubleshoot. Attention: When encountering a malfunction, be sure to turn off the heater, otherwise it may cause the heater to run out of oil and be damaged by air burning. Remember!

11.在过滤油品中经常会遇到以下几种情况：The following situations are often encountered in filtering oil products

（1）因为油品水分重或油品气体含量多，油液还没有到上限，但油液的气泡已经出现到玻璃 视镜处，可开启排气阀消泡，然后关闭真空渗气阀，如气泡还上来时，稍微开点真空分离器上的排气阀（保持负压值在 0.085Mp 左右即可）。

Due to the heavy moisture or high gas content of the oil, the oil has not yet reached the upper limit, but the bubbles in the oil have already appeared at the glass mirror. You can open the exhaust valve to eliminate the bubbles, and then close the vacuum infiltration valve. If the bubbles still come up, slightly open the exhaust valve on the vacuum separator (maintain a negative pressure value of around 0.085Mp).

（2）油液满到气路，进入到水罐，甚至从真空泵抽出。立即关闭急停按钮，开启真空罐真空渗气阀，关闭加热器，然后单独启动油泵，将真空罐油液排尽。停止油泵。然后将气路（冷凝罐、水罐）里的油排完，更换真空泵油，重新启动设备。

The oil fills the air circuit, enters the water tank, and even draws out from the

vacuum pump. Immediately turn off the emergency stop button, open the vacuum leakage valve of the vacuum tank, turn off the heater, and then start the oil pump separately to drain the vacuum tank oil. Stop the oil pump. Then drain the oil in the air circuit (condensate tank, water tank), replace the vacuum pump oil, and restart the equipment.

(3) 机器突然报警停机，时因为精滤芯杂质过多。关闭急停按钮，更换滤芯。重新启动设备。

The machine suddenly alarms and shuts down due to excessive impurities in the fine filter element. Turn off the emergency stop button and replace the filter element. Restart the device.

(4) 真空度正常的条件下进油太小，或者不进油。检查粗滤芯或者喷头。

Under normal vacuum conditions, the oil intake is too small or not sufficient. Check the coarse filter element or nozzle.

使用说明 instructions

1、本机作业时的环境温度应在-25 ~ 45℃范围内。

The ambient temperature during operation of this machine should be within the range of -25~45 °C.

2、使用场地的海拔高度的高低会直接影响本机的真空，海拔越高，其真空度越低（负值）。

The altitude of the site used directly affects the vacuum of the machine.

The higher the altitude, the higher the vacuum level Low (negative value).

3、待处理的油液不能太脏（即油中的杂质颗粒太多），否则，必须先用其它过滤设备（如我厂生产的 JL 系列轻便式过滤加油机）充分滤除，以免影响油机脱气效率或堵塞过滤元件，影响油机寿命。

The oil to be treated should not be too dirty (i.e. there are too many impurities and particles in the oil), otherwise, it must be thoroughly filtered using other filtering equipment (such as our JL series portable filter refueling machine) to avoid affecting the degassing efficiency of the oil engine or blocking the filtering components, which may affect the service life of the oil engine.

操作注意事项 Precautions for operation

1、真空泵工作时，应注意油标显示的油液情况（油液应在油标线上），真空泵油水份较多时，要及时更换。

When the vacuum pump is working, attention should be paid to the oil level displayed on the oil gauge (the oil should be on the oil gauge line). When the vacuum pump has a lot of oil and water, it should be replaced in a timely manner.

2、运行中发现冷却器内存水较多时，要及时放掉。

When excessive water is found in the cooler during operation, it should be

promptly drained.

3、经常注意压力表值的变化，当压力 $>0.3\text{Mpa}$ 时，应清洗过滤器或更换过滤元件。

Regularly pay attention to the changes in the pressure gauge value. When the pressure is greater than 0.3Mpa , the filter should be cleaned or the filter element replaced.

4、初滤器、二级过滤的滤网应经常拆下清洗，保持清洁，以免堵塞，造成进油不足或压力过高。

The filter screens of the primary filter and secondary filter should be frequently removed for cleaning and kept clean to avoid blockage, resulting in insufficient oil intake or high pressure.

5、运行中随时注意泵及相应电机的运行噪声是否正常，如异常应立即排除。

During operation, always pay attention to whether the running noise of the pump and corresponding motor is normal. If there is any abnormality, it should be immediately eliminated.

6、本机停置不用时，应将油机内残油放尽备用。

When the machine is stopped and not in use, the residual oil in the oil machine should be completely drained for backup.

五、保养：maintenance

。设备运行一段时间后应检查：

After running the maintenance equipment for a period of time, it should be checked.

1、电器控制系统是否安全、可靠；

Is the electrical control system safe and reliable.

2、温控仪是否灵敏、可靠、准确；

Is the temperature controller sensitive, reliable, and accurate

3、泵轴油封是否损坏、泄漏；

Is the pump shaft oil seal damaged or leaking

4、运行系统有无堵塞现象，泵及相应电机运行噪声是否异常；

Is there any blockage in the operating system, and is the noise of the pump and corresponding motor abnormal;

5、各管路系统及密封处有无漏气、漏油现象；

Check for any air or oil leakage in various pipeline systems and sealing areas.

6、液位控制是否可靠。Is the liquid level control reliable.

。电机每运转 3000 小时后，应补加润滑脂，以防电机烧坏。

After every 3000 hours of motor operation, lubricating grease should be added to prevent the motor from burning out.

。应随时注意更换或补加真空泵油，真空泵用专用真空泵油或 N46 润滑油。

Always pay attention to replacing or adding vacuum pump oil, and use specialized vacuum pump oil or N46 lubricating oil for vacuum pumps

。如果停机一月以上，本机应放置在干燥的环境，关好电控柜门和所有阀门，并漆上防锈油脂，盖好机身。

If the machine is shut down for more than a month, it should be placed in a dry environment, with the electric control cabinet door and all valves closed, painted with rust proof grease, and the body covered.

六、带电作业的步骤：Steps for live working

首先是准备工作：The first step is to prepare:

1、先备好变压器装油量 5 ~ 6%的合格油放在滤油机旁边；

Prepare qualified oil with a loading capacity of 5-6% for the transformer and place it next to the oil filter;

2、变压器底部放油阀口应与滤油机进油管相匹配，若不配应取下重新焊接一个出油管；

The oil drain valve port at the bottom of the transformer should match the oil inlet pipe of the oil filter. If not, remove and weld a new oil outlet pipe

3、滤油机应装上真空罐油标管 1/2 的合格油（耐压值 $\geq 50KV$ ）

The oil filter should be equipped with qualified oil of 1/2 of the vacuum tank oil standard pipe (with a pressure value of $\geq 50KV$)

4、打开变压器的油枕盖，将滤油机的出油管插入油枕上的油位下，并随即用干净的滤纸或薄膜将油枕盖口密封；

Open the oil conservator cover of the transformer, insert the oil outlet pipe of the oil filter under the oil level on the conservator, and immediately seal the oil conservator cover with clean filter paper or film;

5、将滤油机的进油管插入备好合格油的油桶内；

Insert the oil inlet pipe of the oil filter into the oil bucket with qualified oil prepared

6、打开变压器底部的放油阀门，放掉该变压器 3 -5%的油（该 3 -5%油主要是杂质和水，应单独接放）；

Open the oil drain valve at the bottom of the transformer and drain 3-5% of the transformer's oil (the 3-5% oil is mainly impurities and water, and should be separately connected and drained);

7、在进行步骤 6 的同时，滤油机应打成高真空（不低于-0.09MPa），并随即补充足变压器油枕的油位；

At the same time of step 6, the oil filter shall be set to high vacuum (not less than -0.09MPa), and the oil level of transformer oil oil conservator shall be replenished immediately;

8、当变压器底部放油阀放掉 3 ~ 5%的“废油”后，将滤油机的进油管接在该放油阀上；

When 3-5% of the "waste oil" is discharged from the bottom drain valve of the transformer, connect the oil inlet pipe of the oil filter to the drain valve;

9、此时滤油机即可进行正常工作。

At this point, the oil filter can resume normal operation.

特别注意事项：Special precautions:

1、带电作业必须在晴天进行；

Live working must be carried out on sunny days

2、连接进出油管必须是在电力工程师现场指挥下进行；

The connection of the inlet and outlet oil pipes must be carried out under the on-site command of the power engineer

3、在带电作业前滤油机必须是性能良好（加热功能、真空功能、过滤系统）。

Before conducting live work, the oil filter must have good performance (heating function, vacuum function, filtration system)

七、故障及消除方法：Faults and elimination methods

故障情况 fault conditions	产生原因 cause	消除方法 Elimination method
真空度降低 Reduced vacuum	1. 真空泵故障 Vacuum pump malfunction 2. 真空管路漏气 Vacuum pipeline leakage 3. 真空泵油不足 Insufficient vacuum pump oil 4. 真空泵油有水污染 Vacuum pump oil contaminated with water 5. 抽出气体中含水蒸汽过多 Excessive water vapor in the extracted gas 6. 真空表指示不正确 Incorrect indication of vacuum gauge	1. 见真空泵说明书 Refer to the vacuum pump manual 2. 检修管路 Maintenance pipeline 3. 补充真空泵油至油标线上 Replenish the vacuum pump oil to the oil mark 4. 更换新油 Replace with new oil 5. 属于正常现象 Belongs to normal phenomenon 6. 校准或更换 Calibration or replacement
真空泵进油 Vacuum pump oil inlet	1. 真空罐内油位高，油液吸入冷却器后被抽到真空泵内 The oil level in the vacuum tank of the vacuum pump is high, and the oil is sucked into the cooler before being pumped into the vacuum pump 2. 真空度过高，使进油量大于	1. 适当控制进油量，使其油位在液位计中间位置 Properly control the oil intake to ensure that the oil level is in the middle of the liquid level gauge 2. 降低真空度 Reduce vacuum 3. 真空泵中油应放掉，清洗真空

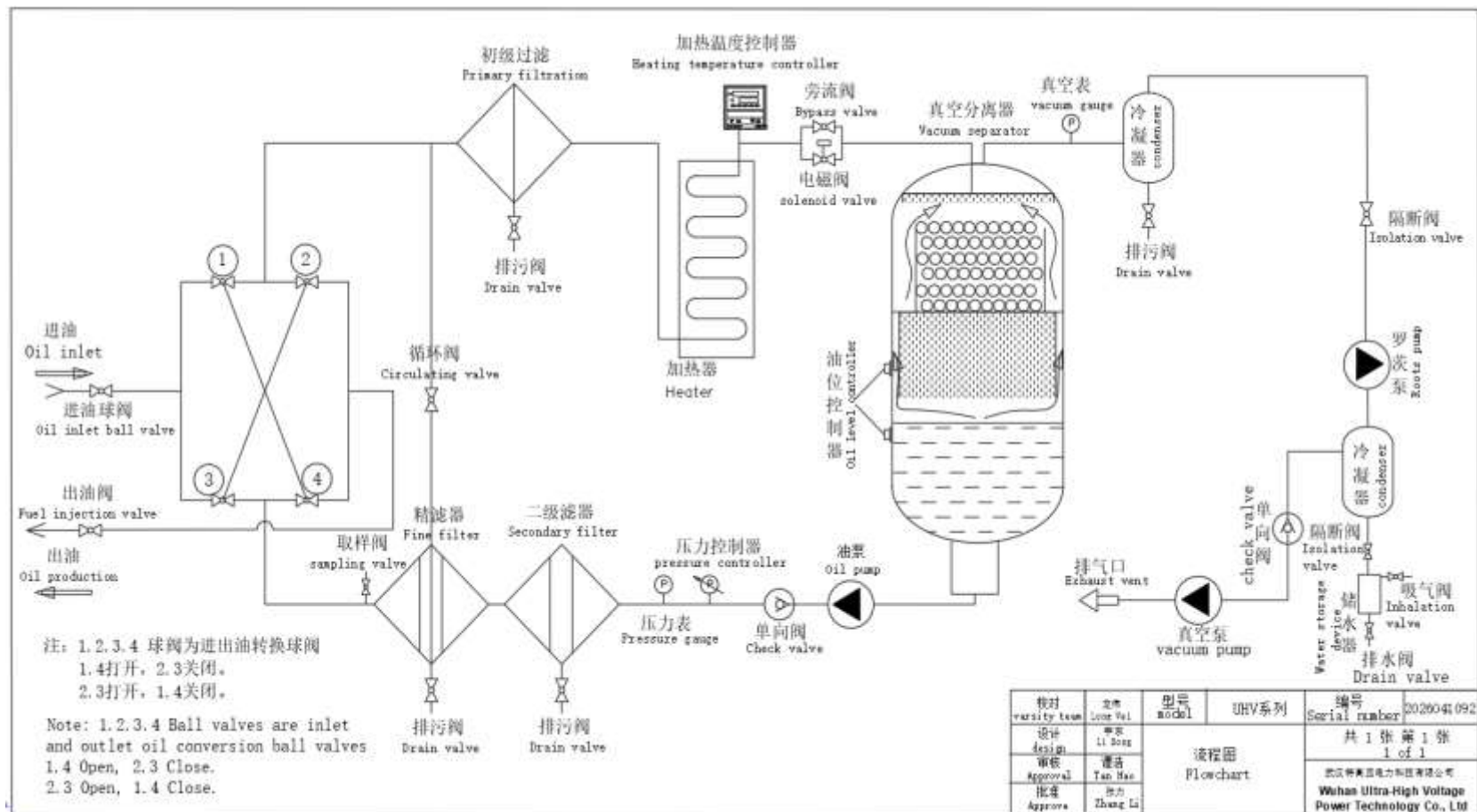
	<p>出油量</p> <p>The vacuum degree is too high, causing the oil inlet quantity to be greater than the oil outlet quantity</p>	<p>泵，更换真空泵油，重新工作时，控制油量，使进出油量达到平衡</p> <p>The oil in the vacuum pump should be drained, the vacuum pump cleaned, the vacuum pump oil replaced, and when working again, the oil quantity should be controlled to achieve a balance between the inlet and outlet oil quantities</p>
真空泵进水 Vacuum pump inlet water	<p>1. 冷却器积水多，水被抽到真空泵内</p> <p>There is a lot of accumulated water in the cooler, and the water is pumped into the vacuum pump</p> <p>2. 处理的油中含水量较多，使其水蒸汽未能在冷却器中冷却成水而进入真空泵</p> <p>The processed oil has a high water content, which prevents its water vapor from cooling into water in the cooler and entering the vacuum pump</p>	<p>1. 观察冷却器中的液位计，若水位较高，则应放掉</p> <p>Observe the liquid level gauge in the cooler, and if the water level is high, it should be drained</p> <p>2. 应清洗真空泵，更换真空泵油</p> <p>The vacuum pump should be cleaned and the vacuum pump oil replaced</p>
真空泵-电机运转中途停止 Vacuum pump - motor stopped midway during operation	<p>1. 电压太大</p> <p>Voltage too high</p> <p>2. 电源缺相</p> <p>Power supply phase loss</p>	<p>1. 暂停使用</p> <p>Temporarily Closed</p> <p>2. 检查电源</p> <p>Check the power supply</p>
排油量减少 Reduced oil discharge	<p>1. 真空罐内油位过低</p> <p>The oil level in the vacuum tank is too low</p> <p>2. 高真空度</p> <p>High vacuum degree</p> <p>3. 油箱或油罐位置较高</p> <p>The position of the fuel tank or oil tank is high</p> <p>4. 齿轮泵油封漏气</p> <p>Gear pump oil seal leakage</p>	<p>1. 增大进油量</p> <p>Increase oil intake</p> <p>2. 降低真空度</p> <p>Reduce vacuum</p> <p>3. 降低高度</p> <p>Lowering height</p> <p>4. 换油封</p> <p>Replace oil seal</p>
排油量减少，表压力增大 Reduced oil discharge and increased gauge	<p>1. 前级过滤器及精滤器被杂质堵塞</p> <p>The front filter and fine filter are blocked by impurities</p>	<p>1. 清洗或更换滤芯</p> <p>Clean or replace the filter element</p> <p>2. 降低高度</p> <p>Lowering height</p>

pressure	2. 排油所达到的位置较高 The oil discharge reaches a higher position	
进油量不足 Insufficient oil intake	1. 进油过滤器堵塞 Oil inlet filter clogged 2. 真空度降低 Reduced vacuum	1. 反冲洗滤芯 Backwash filter element 2. 见前面第一项 See previous first item
启动加热器，油温不见升高 Start the heater and there is no increase in oil temperature	1. 感温探头落出 Temperature sensing probe falling out 2. 加热接触器故障 Heating contactor failure 3. 电路断路 Open circuit 4. 加热管烧坏 Heating tube burnt out	3. 固定感温探头 Fixed temperature sensing probe 4. 检修或更换 Maintenance or replacement 5. 检修 overhaul 6. 更换加热器 Replacing the heater
过滤油不合格 Filtered oil not qualified	1. 油质含水量高 High oil quality and water content 2. 油液加热不足 Insufficient oil heating 3. 滤网破损 Damaged filter screen 4. 设备再次使用未清洗 Equipment not cleaned after reuse 5. 真空度过低 Low vacuum	1. 增加过滤次数 Increase filtering frequency 2. 提高加热温度 Increase heating temperature 3. 检修，更换过滤元件 Maintenance and replacement of filter elements 4. 清洗 clean 5. 见前面第一项 See previous first item

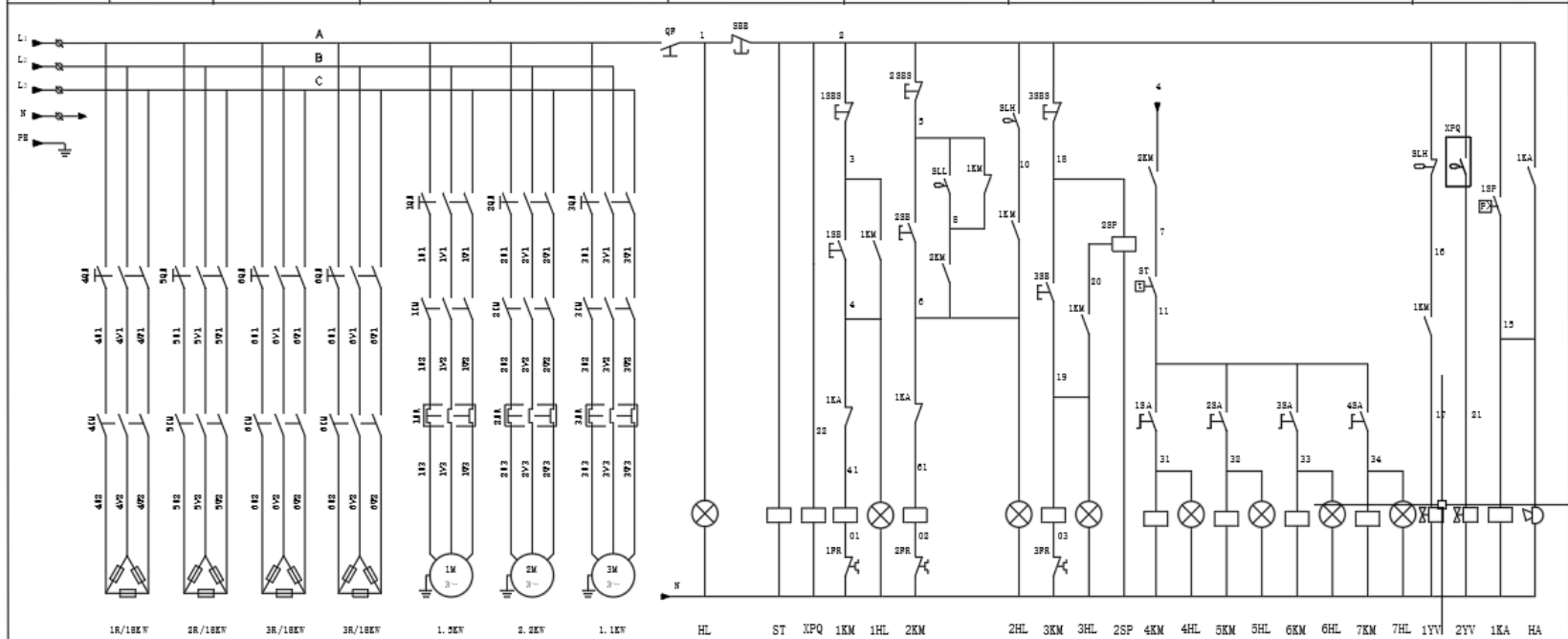
设备装箱清单

Equipment packing list

序号 serial number	品名 Product Name	型号 Model	单位 Unit	数量 Quantity
1	双级真空滤油机 Double-stage vacuum oil filter	UHV-150	台 Stage	1
2	PVC 钢丝增强软管 PVC wire-reinforced flexible hose	配套 matching	米 rice	10
3	抽真空管 Vacuum tube	配套 matching	米 rice	10
4	倒锥法兰盘 Inverted cone flange	DN100	个 a	2
5	抱箍 Clamp	配套 matching	个 a	4
6	使用说明书 User Manual	配套 matching	本 This	1
7	合格证 Certificate of Conformity	配套 matching	份 Copy	1



加热器一 Heater one	加热器三 Heater Three	真空泵电机 Vacuum pump motor	罗茨泵电机 Roots Pump Motor	电源指示灯 Power indicator Light	温控仪 Temperature controller	真空泵控制 Vacuum pump control	罗茨泵控制 Roots pump control	加热器控制 heater control	消泡电磁阀 Defoaming solenoid valve
加热器二 Heater two	加热器四 heater four	输油泵电机 Oil pump motor	控制开关 switch	急停按钮 Emergency stop	消泡控制器 Defoaming control	输油泵控制 Oil pump control	负压控制 Negative pressure control	进油电磁阀 Oil inlet solenoid valve	超压力报警 Overpressure Alarm



注:Note:



- 1、设备之外壳必可靠接地，以保障人身及设备安全；
1. The casing of the equipment must be reliably grounded to ensure personal and equipment safety
- 2、本企业产品不断谋求创新发展，如有改动，恕不另行通知，敬请谅解！
2. Our company's products are constantly seeking innovative development. Any changes will not be notified separately. We apologize for any inconvenience caused!

设计	龙伟	型号	UHV系列	编号	2025040102
校对	李东	控制原理图		共 1 张 第 张	
审核	谭浩			武汉特高压电力科技	
批准	张力			有限公司	