

罗茨鼓风机现场运行注意事项

Notes for site operation of Roots blower

一、外观巡视

Appearance inspection

1、风机油漆变色意味着存在高温，一般是风机超载温度过高，或者机体内部发生碰擦导致，此时需要及时停机进行检修。

1.The paint discoloration of the blower means that there is high temperature, which is usually caused by the overload temperature of the blower, or the rubbing inside the body. At this time, it is necessary to stop the machine in time for maintenance.

2、漏油意味着风机密封件损坏，需要更换。漏水或机体外部有锈斑往往是水冷部件损坏，需要及时更换维修。

2.Oil leakage means that the blower seal is damaged and needs to be replaced. Water leakage or rust spots outside of the body is often damage of water-cooling components, which need to be replaced and repaired in time.

3、油镜是唯一可以观察到机体内部的重要部件。日常需要观察油位是否在油镜中线，及时加减润滑油。同时观察润滑油是否发生乳化、发黑，以便及时更换润滑油。

3. The oil mirror is the only important part that can be observed inside the body. Daily need to observe whether the oil level is in the middle line of the oil mirror, and add or subtract lubricating oil in time. At the same time, observe whether the lubricating oil is emulsified and blackened, in order to timely replace the lubricating oil .

二、润滑油加注

Lubricating oil filling

1、润滑油一般采用 220#中负荷齿轮油（如购买不到此型号，需和我司沟通，选择合适的油品），每工作 1000 小时更换一次润滑油。

1. The lubricating oil is generally 220 medium load gear oil (if you can't buy this model, you need to communicate with our company to select the appropriate oil), and change the lubricating oil every 1000 hours.

更换润滑油，必须先停机。

Stop the machine before changing the lubricating oil.

对于安装在封闭系统中，尤其输送易燃易爆气体的风机，必须关闭进出风口闸阀，彻底切断风机与系统的联系，避免系统压力影响加油。更严重的情况会导致危险气体通过加油口泄漏至大气。

For blowers installed in a closed system, especially those conveying flammable and explosive gases, the inlet and outlet gate valves must be closed to completely cut off the connection between the fans and the system to avoid the influence of system pressure on refueling. More serious cases can result in dangerous gases leaking into the atmosphere through oil filler.

接着打开加油口泄压，最后才打开放油口，放掉废油。

Then open the oil filler to relieve pressure, and finally open the oil drain to discharge the waste oil.

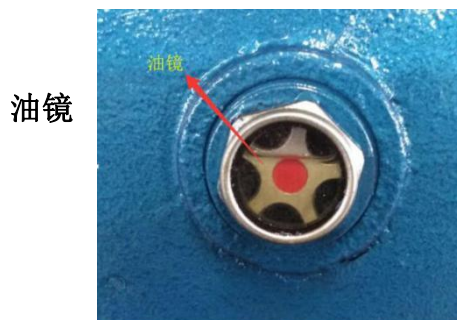
倒序以上步骤加入新油，加注至油镜中心偏上 2-3mm。

Add new oil according to the above steps in reverse order and fill it to 2-3mm above the center of oil mirror.



加油口 (oil filler)

放油口 (oil drain)



油镜

(oil mirror)

2、润滑脂采用福斯万能红脂,或其他进口品牌等效 2#锂基润滑脂之产品,每工作 1000 小时更换一次润滑脂。

The lubricating grease shall be Fuchs universal red grease or other imported brand equivalent 2# lithium base grease, and the grease shall be replaced every 1000 hours.

加注润滑脂之前,必须先停机。

Stop the machine before adding grease.

加注润滑脂的部位都安装有黄油嘴。黄油嘴一般安装在靠近联轴器、三角带盘一侧的轴承上端(输送特殊气体的风机为防止气体通过黄油嘴泄漏,一般将之替换为黑色闷头螺钉,需拆开后加注润滑脂,加注完毕之后,须重新使用密封材料进行密封)。

Stop the machine before filling it with grease.

Grease filling parts are equipped with grease nozzles. The nozzle is generally installed on the upper end of the bearing near the coupling and V-belt plate (in order to prevent gas leakage through the nozzle, the blower conveying special gas is generally replaced with a black bulkhead screw, which shall be disassembled and filled with grease. After filling, the sealing material must be re-used for sealing).

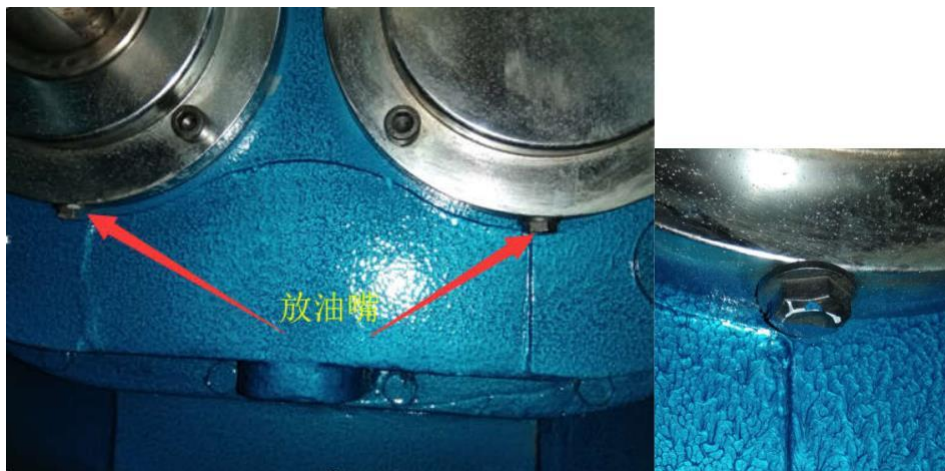




加油嘴 (refuel nozzle)

找到黄油嘴后，在对应位置的下端，有一放油用闷头螺钉，需将其拆开后，再行加注润滑脂，加注至新油出现即可，拧紧底部放油嘴。

After you find the grease nozzle, at the lower end of the corresponding position, there is a bulkhead screw for oil drain. After you take it apart, fill it with grease and then add it until the new oil appears. Tighten the bottom of the grease drain nozzle.



放油嘴

(drain nozzle)

注：更换润滑油、润滑脂时，如发现颗粒杂质、金黄色铜屑、润滑油严重乳化等异常情况，须立即停止运行，通知厂家参与故障判断。

Note: when replacing lubricating oil and grease, in case of abnormal conditions such as particle impurities, golden copper chips and serious emulsification of lubricating oil, the operation shall be stopped immediately and the manufacturer shall be informed to participate in fault judgment.

三、传动件及附件检查

Inspection of transmission parts and accessories

1、三角带：定期检查张紧三角带。松紧程度简易判断标准为，停机状态下，单手用力压下三角带，三角带下垂不超过 1cm。

三角带断裂后，需要严格按照原有型号进行更换。注意三角带损坏严禁逐条替换，必须整套更换。三角带更换完毕后，需要重新校对风机皮带轮与电机皮带轮的平行度，两者平行度误差不超过 0.1mm。

1. V-belt: regularly check and tension V-belt. The easy criterion for judging the tightness is to press down the V-belt with one hand when the machine is stopped, and the triangle belt will sag no more than 1cm.

After the V-belt is broken, it should be replaced in strict accordance with the original model. Note that the damage of the V-belt is strictly prohibited to replace one by one, it must be replaced as a whole. After the replacement of V-belt, the parallelism between the blower pulley and the motor pulley shall be checked again, and the parallelism error between the two shall not exceed 0.1mm.

2、联轴器：定期检查柱销弹性圈，如有磨损，须及时更换。检查同轴度，如有异常，及时调整。

2. Coupling: Check the elastic ring of the column pin regularly, and replace it in time if it is worn. Check the coaxiality, If there is any abnormality, adjust it in time.

3、进口消声器带有空气滤芯，需要及时检查滤芯清洁程度，及时更换。

3. The inlet muffler is equipped with an air filter element, so it is necessary to check the cleanliness of the filter element and replace it in time.

四、冷却使用

Use of cooling

1 对于超过 68.6KPa 的工况，须使用清洁水源冷却，或循环冷却系统。

1. For the working conditions over 68.6kpa, clean water cooling or circulating cooling system must be used.

2 当室温低于 0℃时，停机状态下须放空机体内部水源；循环系统选用对应牌号冷却液。

2 when the room temperature is lower than 0℃, the internal water source of the machine shall be emptied when the machine is shut down; The corresponding brand coolant is used for the circulating system.