ROSBERG FOG SYSTEMS
OPERATION MANUAL

喷雾系统操作保养手册

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Rosberg Tech
罗斯博格科技

WATER QUALITY REQUIREMENTS FOR ROSBERG FOG SYSTEMS

水质要求用于罗斯博格雾系统

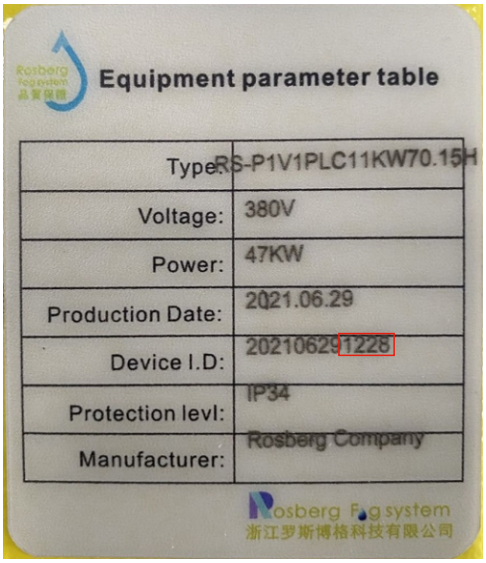
RO Water supply or else a Water clean, free of algae and free of suspended solids, with a hardness lower than 9 german degrees, an electro--conductivitylower than 200 mS/cm, bicarbonates lower than 1 mmol/l, sulphates lower than 1 mmol/l, phosphates absent, sum of cations (Ca,K,Mg) lower than 1 mmol/l, given with a pressure of 3 bar at least. Different kinds of water must be filtered by an appropriate system that can be offered separately by Rosberg depending on the water analysis results (strictly needed).

Ro供水或纯净水，不含藻类和悬浮固体，硬度低于9度，
电导率低于200 mS / cm ，碳酸氢盐低于1 mmol / l，
硫酸盐低于1 mmol / l，无磷酸盐，阳离子总和（Ca，K，Mg）
低于1 mmol / l，且压力至少为1 bar~1.5bar。
不同种类的水必须通过适当的系统过滤，
Rosberg可以根据水分析结果单独提供。

VOICE SELECTIOM

一：根据您的需求选择您需要的语言，
然后进入系统屏幕密码：设备编号的最后4位

一：Select the language you need according to your needs, and then enter the system 。
Screen password: the last 4 digits of equipment number



No1:

PREPARATION AND INSPECTION BEFORE STARTUP
启动前的准备和检查

1：水箱底下进水阀门是否打开。
Whether the water inlet valve under the water tank is open

2：增压泵管道阀门是否打开。
Whether the pipeline valve of booster pump is open

3：保安过滤器放气阀门是否关闭。
Check whether the air vent valve of water filter is closed.

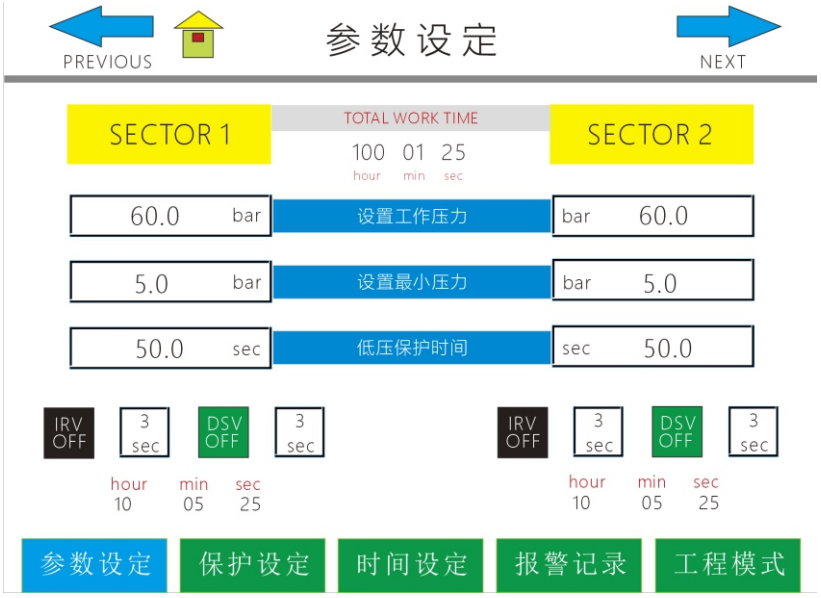
4：水箱里面是否有水?供水管道是否有水?
.Is there any water in the water tank?
.Is there water in the water supply pipeline?

5：检查喷雾泵油塞是否更换成呼吸油塞。
Check whether the oil plug of the spray pump is replaced by a respiratory oil stopper.

6：喷雾主机上各种接头阀门是否完好。
The valves on the fog system are all in good condition.

7：检查电器是否完好和松动。
Check whether the electrical appliances are intact and loose

1：新机启动前的设置
SETTINGS BEFORE STARTING A NEW MACHINE



一：设置工作压力

出厂时设备工作压力为10~20bar。开机运行排完空气后，设置60bar~70bar工作压力即可。长时间停机或者维修过管道后为保护管道，压力需设置从10~20bar开始排完空气后，最设调到工作压力。

Step 1： Setting working pressure:

The equipment's working pressure is set to 10-20 bar when it leaves the factory. After starting up and exhausting the air, set the working pressure to 60-70 bar. If the system has been shut down for a long time or maintenance has been performed on the pipeline, in order to protect the pipeline, the pressure should be set to start at 10-20 bar, exhaust the air and then gradually adjust it to the working pressure.

二：设置最小压力

出厂时设备最小压力0~10bar，无需更改。

Step 2: Set mini pressure

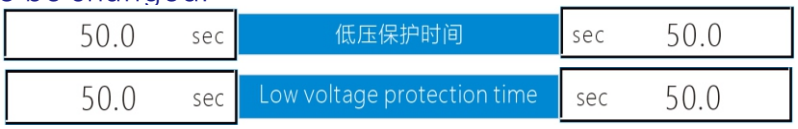
The minimum pressure of the equipment is set to 0~10 bar at the factory. No changes required

二：低压保护时间

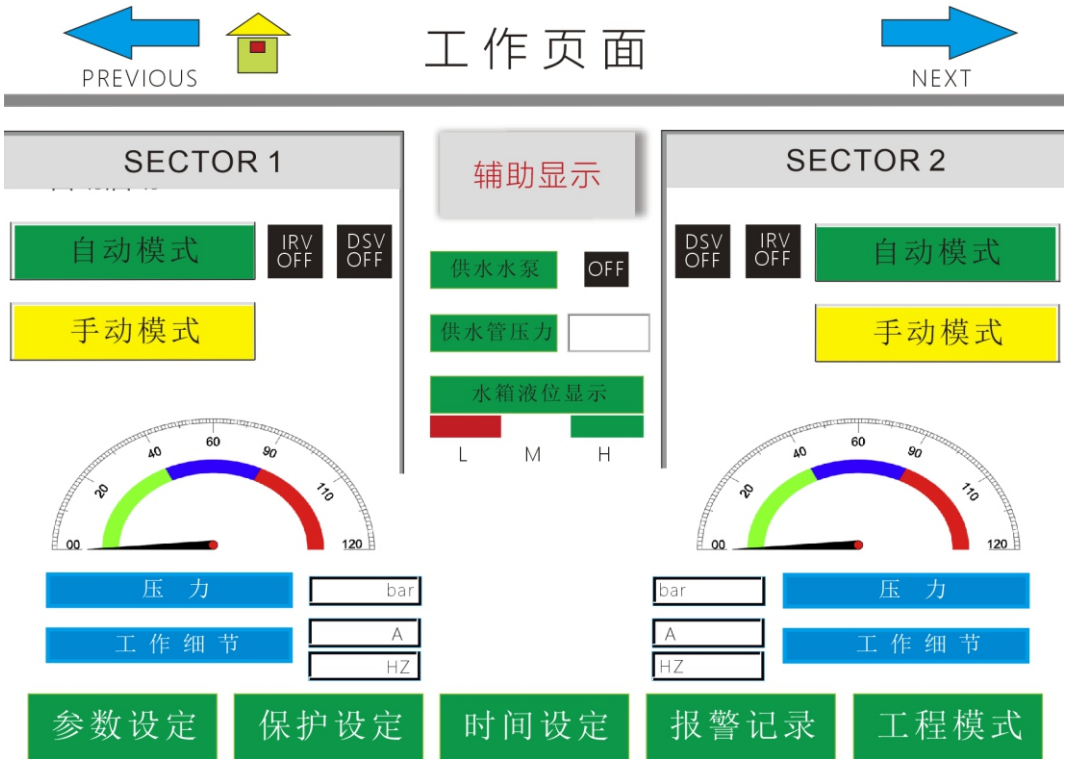
出厂设置时50SEC，无需更换。

Step 3: Low pressure protection time

The low pressure protection time is set to 50 seconds at the factory and does not need to be changed.



2：设备状态
EQUIPMENT STATUS



一：设备状态页面分每个泵的操作区域。

手动启动　　自动启动

1：手动启动：主要功能用来测试和调试设备使用。

2：自动启动：如有你有Ridder，Priva,Hoogendoorn系统可接入Rosberg喷雾系统进行自动化喷雾。

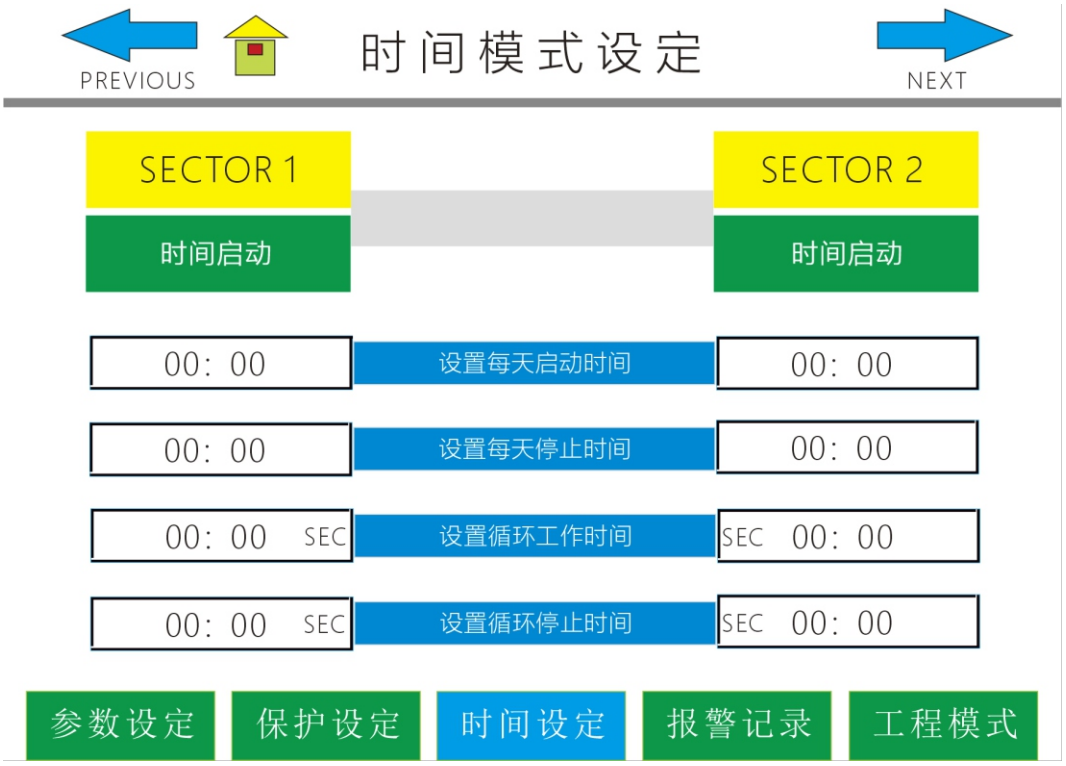
—: Step 1: Equipment status page divided into operation areas for each pump.

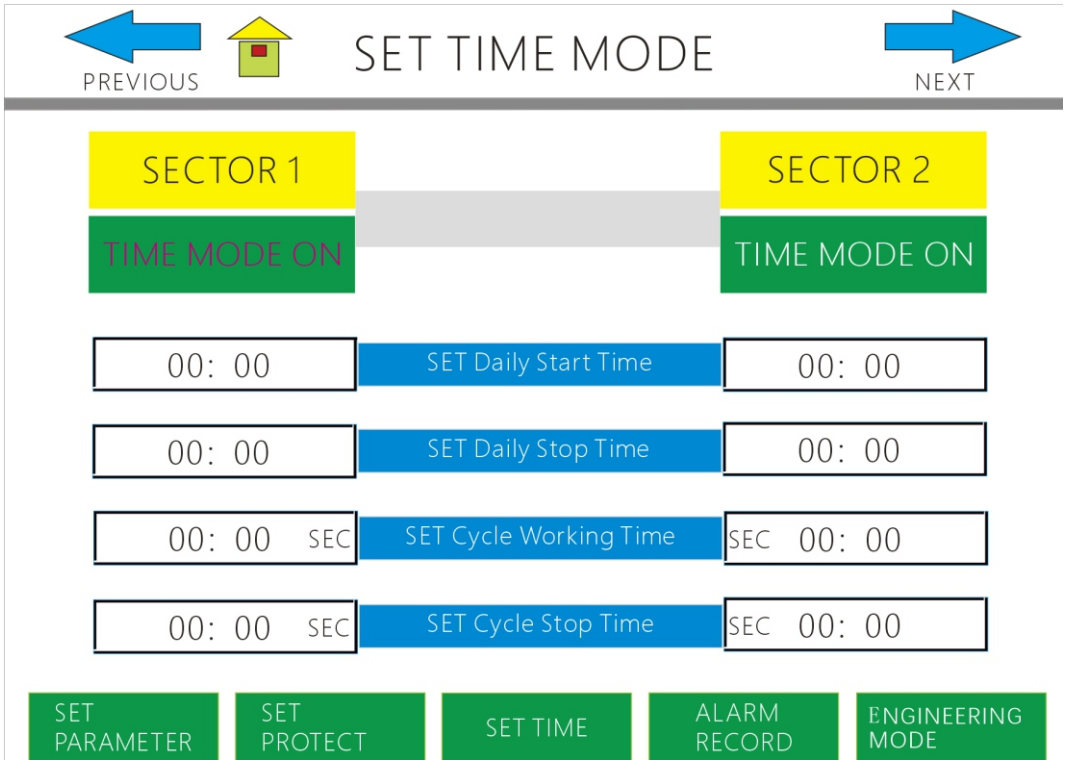
Manual start　　Auto start

1: Manual start: The main function is used for testing and debugging of the equipment.

2: Auto start: If you have Ridder, Priva, Hoogendoorn systems, you can connect to the Rosberg spray system for automatic spraying.

3：时间模式
TIME PATTERN

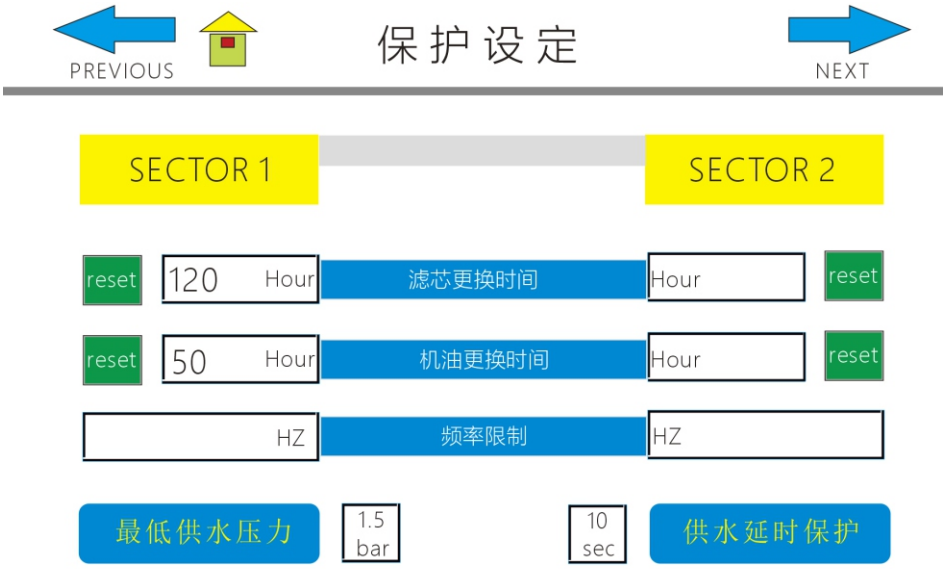




1：时间启动：在没有外部控制系统情况下，可自行设定开启时间，关闭时间及喷雾间隔时间。

2: Step 1: Time start
Time start allows you to set the start time, stop time, and spraying interval time without an external control system。

4：保护参数
PROTCTION PARAMETERS



说明：

1:滤芯更换时间
出厂时设备滤芯更换时间为120小时,需要根据当地供水水质定时更换。

2:机油更换时间
出厂时设备机油更换时间为50hour,需到期后更换（机油型号，见第十三页），新机第一次更换后，可把机油更换时间设到250小时

3:频率限制
设备如无问题，无须改动。

4:设备完成一个周期，需要按RESET 5SEC复位，才可以工作。

5:最底供水压力最底允许1.2bar,供水保护10SEC。

Explanation:

1： Filter replacement time:
The equipment's filter replacement time is set to 120 hours at the factory and needs to be replaced regularly based on local water supply quality.

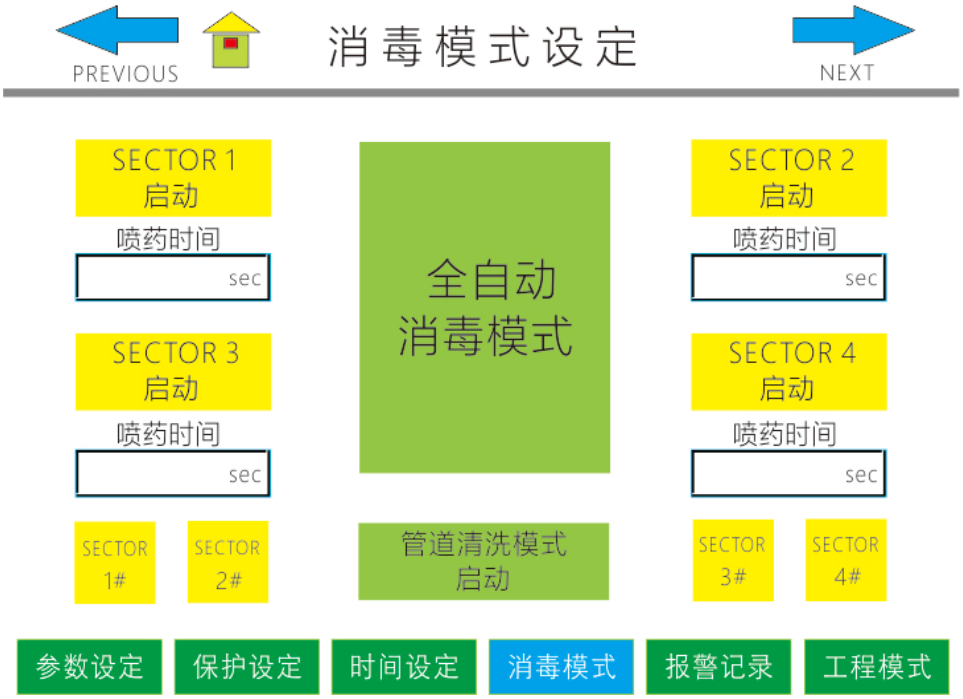
2:Oil change time:
The equipment's oil change time is set to 50 hours at the factory and needs to be changed after expiry (oil type, see page 13). After the first oil change for new equipment, the oil change time can be set to 250 hours.

3:Frequency limit:
If there are no problems with the equipment, no modifications are needed.

4:To start working after one cycle, press RESET for 5 seconds to reset the equipment

5:The mini allowable water supply pressure is 1.2 bar, and the water supply delay time is 10 sec at the lowest level.

5：抗菌参数设置
SET ANTIBACTERIAL PARAMETER



此功能需要硬件支持
This feature requires hardware support

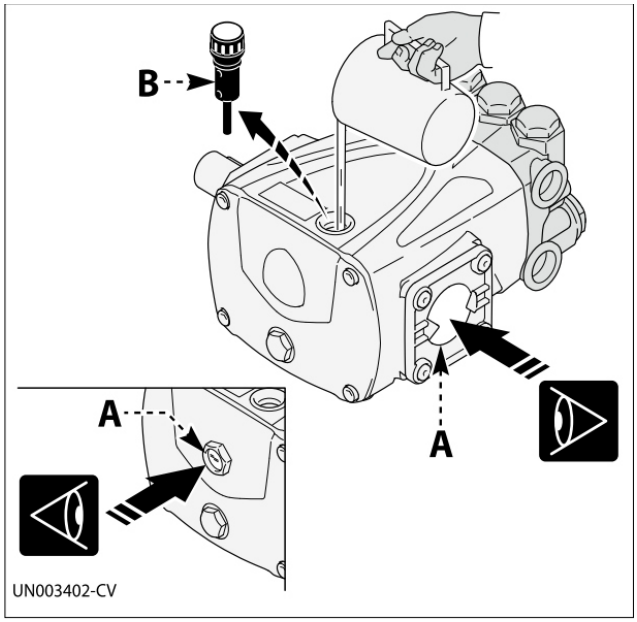
说明：本功能是给温室消毒使用，需要硬件和软件支持。
Explanation: This function is for greenhouse disinfection and requires hardware and software support.

6：报警记录
ALARM RECORD

1：记录设备故障及解决方式

1: Record equipment malfunctions and solutions.

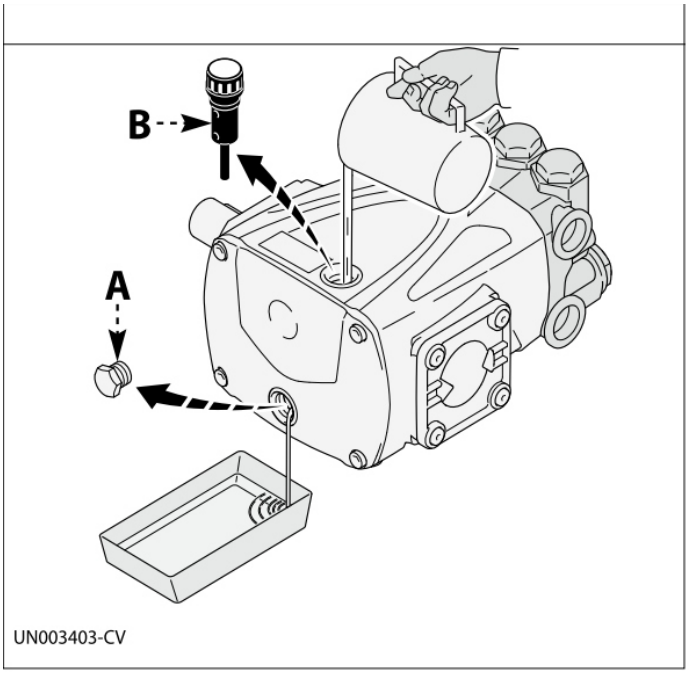
6：更换机油
OIL CHANGE



检查油位Check the oil level

1:在泵处于水平位置和冷却状态的情况下检查油位
2:通过液位计（A）检查油量
3:需要时，按照“润滑油表”中的规定牌号和规格来加油。
4:按照以下步骤来加油
1:拧下螺塞（B）加油，直到油位处于液 位计刻度的一半以上。
2: 拧上螺塞

Step 1: Check the oil level when the pump is in a horizontal position and in a cooled state.
Step 2: Check the oil level using the liquid level gauge (A).
Step 3: When necessary, add oil according to the specified brand and specifications in the "Lubricating Oil Table."
Step 4: Follow these steps to add oil:
1. Unscrew the plug (B) and add oil until the oil level is above half of the liquid level gauge scale.
2. Screw the plug back on.



更换机油Oil Change

在泵稍温热的情况下进以下步骤
请按以下步骤：
一：使用合适的容器收集使用过的油
二：拧下排油口塞（A）排出所有的油
三：拧上油塞（A）
四：拧下机油尺（B）
五：通过加油口添加新油至适当的油位，（见检查油位）
六：拧上机油尺。

When the pump is slightly warm, follow these steps:

Step 1: Collect the used oil in a suitable container.
Step 2: Unscrew the oil drain plug (A) and drain all the oil.
Step 3: Screw the oil drain plug back on (A).
Step 4: Unscrew the dipstick (B).
Step 5: Add new oil through the oil filler port to the appropriate oil level (see "Check the oil level").
Step 6: Screw the dipstick back on.

6：机油型号
OIL TYPE

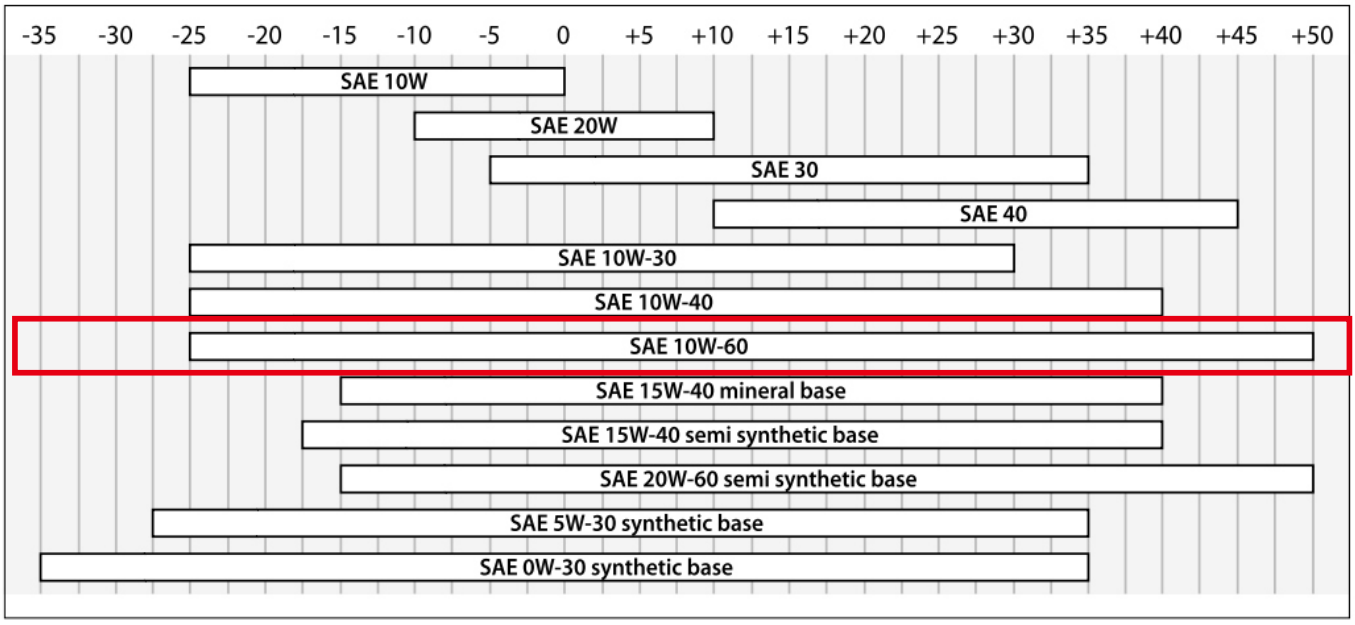
润滑油表Oil Table

设备和泵在出厂时已经上好润滑油，润滑油的参数在泵的铭牌上。
更换油时，使用适合作业环境的油（见附表）

The equipment and pump are already lubricated with oil at the factory, and the parameters of the lubricating oil are on the pump nameplate. When changing the oil, use oil suitable for the operating environment (see attached table).

润滑油粘度的选择需要根据外界温度来确定。
请根据下图来选择合适作业环境温度的润滑油。

The selection of lubricating oil viscosity needs to be determined according to the external temperature. Please refer to the following chart to select the appropriate lubricating oil for the operating environment temperature.



红颜色型号是中国常用油品型号

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6：更换过滤网
REPLACING THE FILTER MESH

提醒
WARNING

1：根据不同水质，厂商建议定期检查过滤网。建议时间1月/次。
2：根据不同水质，厂商建议定期更换过滤网。根据水质决定。
3：停机期间，请排空过滤器内水。
4：长时间停机后启用，注意排空过滤内空气。

过滤网型号		
■	810*219	2#-10UN
□	40寸	10UN
□	30寸	10UN
□	20寸	10UN
□	10寸	10UN

提醒
WARNING

1：The manufacturer recommends periodically checking the filter mesh.
2：The manufacturer recommends periodically replacing the filter mesh, and the replacement frequency is determined by water quality.
3：During shutdown periods, please drain the water from the filter.
4：When starting up after a long period of downtime, be sure to vent the air inside the filter.

过滤网型号		
■	810*219	2#-10UN
□	40寸	10UN
□	30寸	10UN
□	20寸	10UN
□	10寸	10UN

注意
WARNING

根据不同的水质，Y型过滤器的清洗间隔15~30天

注意
WARNING

The cleaning interval for the Y-type Plter varies from 15 to 30 days depending on different water quality.

说明：ROSBERG喷雾系统有二种过滤器，Y型粗过滤器，和精密过滤器。
Y型过滤器需定量清洗无需要更换，精密过滤需定时更换。

6：故障和排除方法
Troubleshooting and fault elimination methods.

故障	检查方向	解决
低压报警 Low pressure alarm	喷雾管道破损 Spray pipe damage	1:修补管道.Repair the pipe
	无进水或者进水不足 No water or insufficient water	1:检查进水泵.Check the feed pump 2:检查HSV电磁阀Check HSV solenoid valve 3:检查水源,Check the water
超压报警 Overpressure alarm	出水电磁,或调压阀 Outlet water electromagnetic, pressure regulating valve	1:检查出水电磁阀是否工作 Check whether the outlet water solenoid valve is working 2:增大高压报警值. Increase the high pressure alarm value 3:限制频率.Limited frequency
缺水报警 Water shortage alarm	水箱电磁阀 Water tank solenoid valve	1:检查水源压力 Check the water source pressure 2:检查水箱电磁阀是否工作 Check whether the solenoid valve of water tank works 3:水箱是否有水 Water tank is short of water 4:检查液位传感器Check the level sensor
泵严重抖动 Pump shakes severely	检查泵的单向阀是否有被卡. Check whether the valve of the pump is stuck 供水不足 Insufficient water supply	1:请根据泵的随机说明检查问题 Read the pump instructions 大部份原因,水质问题导致活门被卡无法复位, 2: 更换过滤网 Replace the filter screen
泵漏水 Pump water leakage	检查泵的水封 Check the water seal of the pump	1:请根据泵的随机说明更换 Read the pump instructions 水封,油封属于易损件是无保修请联系厂家购买.
泵声音变大 Pump sounds louder	检查泵是否乳化 检查油镜是否变白	1:请根据泵的随机说明更换 Read the pump instructions 水封,油封属于易损件是无保修请联系厂家购买.

备注:泵浦水封,油封属于易损件,无保修
Note: the pump water seal and oil seal are vulnerable parts without warranty