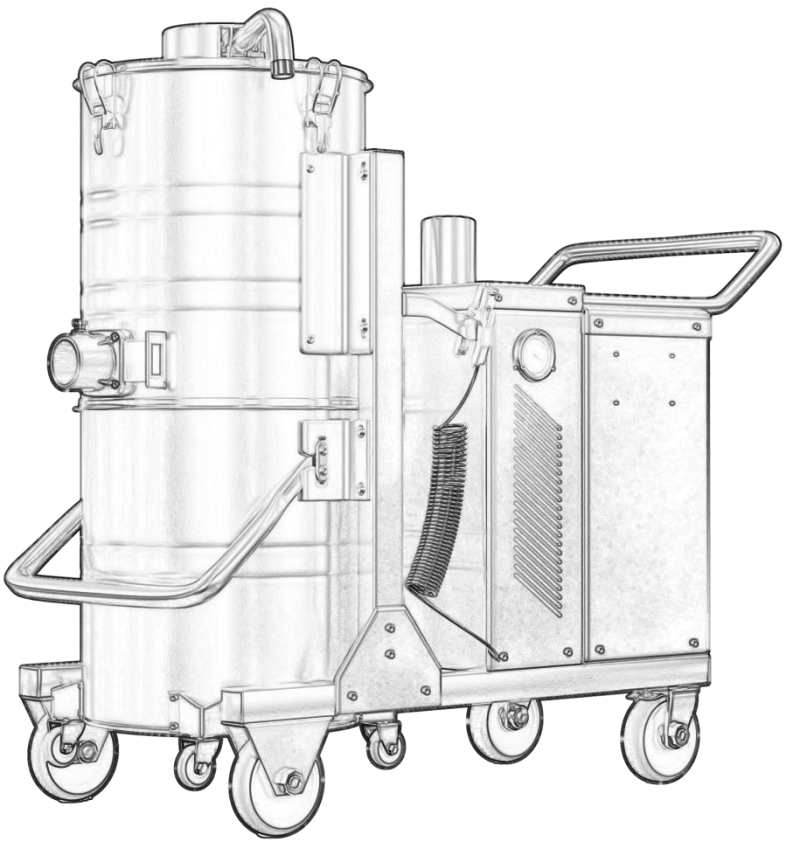
使用手册

（User manual）

HN 系列整机防爆工业吸尘器

（HN series explosion-proof industrial vacuum cleaner）



操作和维护说明

（Operation and maintenance instructions）

前言（introduction）

操作说明书上有关于使用和安全操作机器的重要内容。在开始使用这台机器之前请仔细阅读本说明书。保存好说明书并让所有的操作人员认真阅读。如果你没有遵照其中的说明操作，有可能会导致人身伤害或损坏设备、器具或建筑物。

The operating instructions contain important information on the use and safe operation of the machine. Please read this manual carefully before you start using this machine. Keep the instructions and have all operators read them carefully. Failure to follow these instructions may result in personal injury or damage to equipment, appliances or buildings.

仔细检查打包箱体是否存在运输损坏。如果发现有损坏，请勿签收，马上与发货公司联系。

Carefully inspect the packing case for transport damage. If any damage is found, do not sign for it and contact the shipping company immediately.

本手册的内容以最新产品信息的发布时间为基准。丰耀保留在没有告知的情况下进行更改和改进的权力。

The content of this manual is based on the latest product information release time. Fengyao reserves the right to make changes and improvements without notice.

为了您的方便，请记下机器的型号和出厂编号:

For your convenience, please write down the model number and factory number of the machine:

产品型号（Product model）： _____

系列号（Serial number）： _____

零件号（Part number）： _____

购买日期（Date of purchase）： _____

请妥善保管机器的出厂成品检验记录，以便您能够享受更优质的售后服务。

Please keep the inspection records of the finished products of the machine properly, so that you can enjoy better after-sales service.

本文档中的包含的描述不具有约束力。故本公司保留随时因必要的改进或者因生产/商业上的需要而对元件、细节以及配件供应做出变动的权利。

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手册中使用的符号（Symbols used in the manual）



警告符号:
认真阅读标有该符号的章节并遵照指示进行操作，以确保操作者和机器的安全。
Warning symbol:
Read the section marked with this symbol carefully and follow the instructions to ensure that Safety of operator and machine



警告符号:
表示应使用符合法律要求的合适的提升方式装卸该带包装的产品。
Warning symbol:
Indicates that the packaged product should be loaded and unloaded using a suitable lifting method that complies with legal requirements.



报废处置符号:
认真阅读标有该符号的章节，以正确执行机器的报废处理。
Scrap disposal symbol:
Carefully read the chapter marked with this symbol to properly perform the scrapping treatment of the machine.

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机器的交付(Delivery of machine)

当机器交付给客户时，请立即检查以确保收到送货单中提到的所有物料，以及机器在运输期间未受到任何损坏。如发现损坏现象，则承运人必须立刻确定受损程度，并通知我们的客服部门。只有及时的反馈相关信息才能确保获得缺少的物料，并顺利得到相应的损失赔偿。

When the machine is delivered to the customer, please check immediately to ensure that all materials mentioned in the delivery note have been received and that the machine has not suffered any damage during transportation. If any damage is found, the carrier must immediately determine the extent of the damage and notify our customer service department. Only timely feedback of relevant information can ensure that the missing materials are obtained and the corresponding loss compensation is successfully obtained.

导言(introduction)

HN 系列整机防爆工业吸尘器是指在细微粉尘足以引起爆炸或着火等危险场合使用的的吸尘器。机身为新款不锈钢材料，采用防爆电机、防爆开关、整机去静电装置。

HN series complete explosion-proof industrial vacuum cleaners are vacuum cleaners used in dangerous situations where fine dust is enough to cause explosions or fires. The body is made of new stainless steel material, using explosion-proof motor, explosion-proof switch, and whole machine anti-static device.

用途（use）

工业吸尘器被设计用于化工厂、炼油厂、常规工业企业等场所，容易产生有毒有害的易燃易爆或超细粉尘的场所。

Industrial vacuum cleaners are designed for chemical plants, oil refineries, general industrial enterprises and other places that are prone to produce toxic and harmful flammable and explosive or ultrafine dust.

技术参数（Technical parameter）

型号	单位	HN2210B-EX	HN3010B-EX	HN4010B-EX	HN5510B-EX	HN7510B-EX
电压	V	220	380	380	380	380
额定频率	HZ	50	50	50	50	50
功率	KW	2.2	3.0	4.0	5.5	7.5
吸力	Kpa	23	28	32	37	39
风量	M³/h	320	380	380	550	560
过滤网面积	M²	4.2	4.2	4.2	4.2	4.2
清灰方式		手动反吹	手动反吹	手动反吹	手动反吹	手动反吹
噪音	Db（a）	69	69	69	72	72
吸入口径	Mm	40-50	50	50	50	50
容量	L	70	80	80	100	100
重量	kg	85	110	138	185	195
尺寸	Mm	1250*600*1120	1250*600*1160	1250*600*1160	1250*600*1300	1250*600*1300

Model number	unit	HN2210B-EX	HN3010B-EX	HN4010B-EX	HN5510B-EX	HN7510B-EX
voltage	V	220	380	380	380	380
Rated frequency	HZ	50	50	50	50	50
power	KW	2.2	3.0	4.0	5.5	7.5
suction	Kpa	23	28	32	37	39
Air volume	M³/h	320	380	380	550	560
Screen area	M²	4.2	4.2	4.2	4.2	4.2
Cleaning method		Manual blowback				
noise	Db（a）	69	69	69	72	72
Suction diameter	Mm	40-50	50	50	50	50
capacity	L	70	100	100	100	100
weight	kg	85	110	138	185	195
dimension	Mm	1250*600*1120	1250*600*1160	1250*600*1160	1250*600*1300	1250*600*1300

安全通则(General safety rule)

1、注意工作环境对设备的影响如：静电、高温、车辆等。

pay attention to the impact of the working environment on the equipment, such as: static electricity, high temperature, vehicles, etc.

2、应使用符合国家规定的电源、插头及插座。

should be used in accordance with the national regulations of the power supply, plug and socket.

3、插电源时操作者手必须干燥，以防触电。

The operator's hand must be dry when plugged in to prevent electric shock.

4、使用本机前应先检查粉尘是否适合本机进行吸尘工作，潮湿的粉尘容易堵塞过滤尘袋，影响通风和过滤效果，不适合。

before using the machine should first check whether the dust is suitable for the machine for vacuuming work, wet dust is easy to block the filter bag, affecting the ventilation and filtration effect, not suitable.

5、清洗或维护本机前请先切断电源。

Please cut off the power supply before cleaning or maintaining the machine.

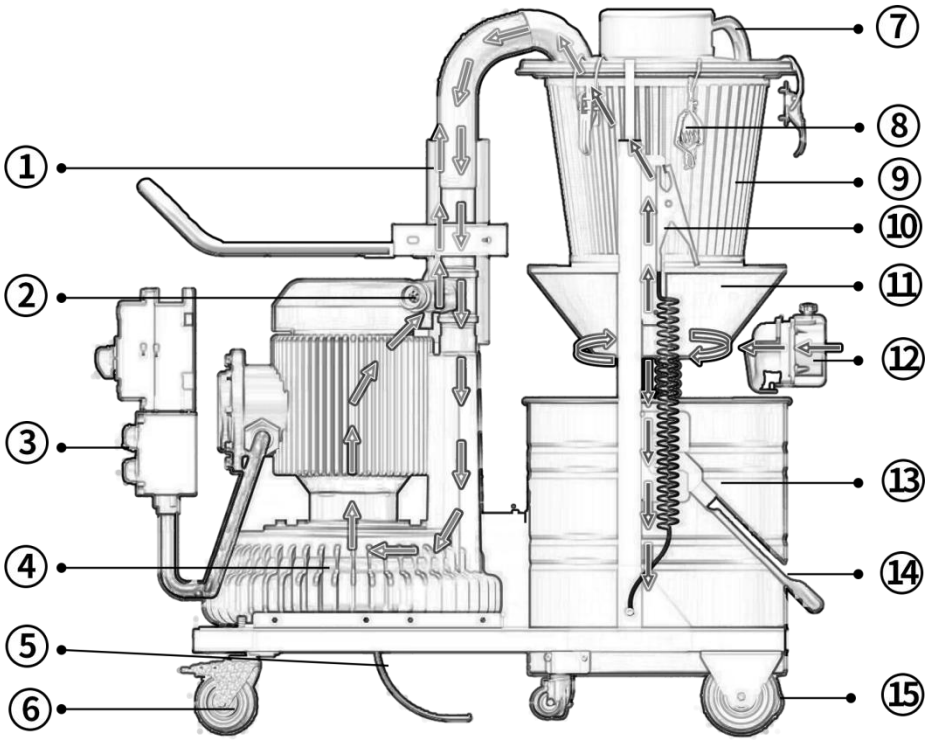
6、吸入物的表面温度应≦60°C。

The surface temperature of the inhalant shall be ≦60°C.

7、运输如果使用机车进行设备的运输工作 ，请确保设备由固定带或固定管进行固定，防止其意外滑动。

Transportation If the locomotive is used for the transportation of the equipment, please ensure that the equipment is fixed by a fixed belt or fixed pipe to prevent accidental sliding.

主要部件（Main component）



机器的主要部件如下：

The main parts of the machine are as follows

1.消音器（Silencer）

2.泄压阀（ Pressure relief valve）

3.电控箱（ Electric box）

4.涡轮风机（Turbine motor）

5.导地链（Guide chain）

6.万向轮（Universal wheel）

7.反吹手柄（Blowback handle）

8.滤芯导静电夹

（Filter element electrostatic guide clip）

9.滤芯（ Filter element）

10.去静电夹（Remove the electrostatic clip）

11.旋风分离器（Cyclone separator）

12.吸尘口（Vacuum port）

13.集尘桶（Dust bucket）

14.集尘桶手柄（Dust bucket handle）

15.定向轮（Directional wheel）

准备工作（Preparatory work）

一、机器的装卸（Handling of machinery）

该设备采用特定的包装方式，带有便于叉车装卸的木托盘。包装之间不能叠放

The equipment is packaged in a specific way with wooden pallets for forklift loading and unloading. Do not stack between packages

二、怎样取出机器（How to take out the machine）

1.检查包装外部透明膜所看到机器是否有破损。

Check the transparent film on the outside of the package to see if the machine is damaged.

2.机器固定在托盘上，并用直角固定轮子。

The machine is fixed on the tray and the wheel is fixed with a wooden wedge.

3.移除直角并在及其后部放置斜坡。

Remove the right Angle and place a ramp behind it.

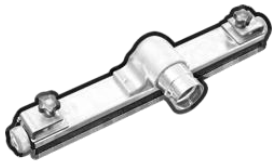
4.利用斜坡向后把机器从托盘上倒下来。

Use the ramp to drop the machine backwards from the tray.

三、在集尘桶取出配件（Remove accessories from dust bucket）



5M透明钢丝管
(5M transparent steel pipe)



吸扒
(Suction scraper)



圆毛刷
(Round bristle brush)



扁吸嘴
(Flat nozzle)

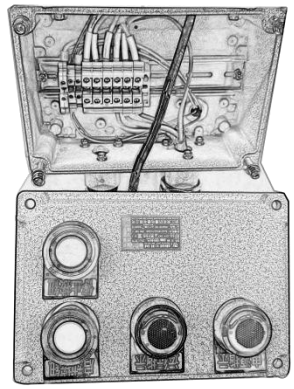


去静电夹
(Antistatic clamp)



S型弯管
(S-bend pipe)

四、连接电源（Connect power）



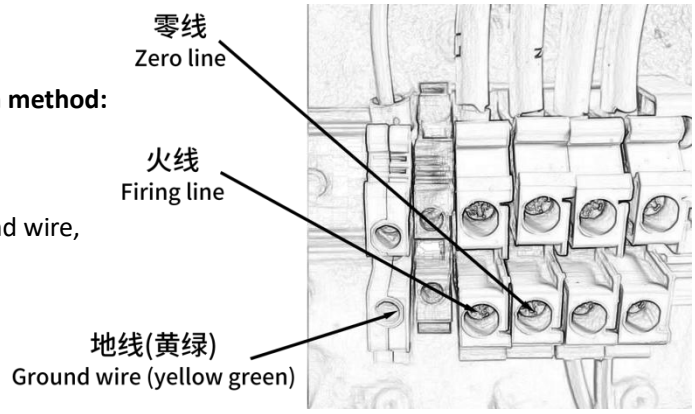
1.打开配电箱按键位置接电源线。
Open the power distribution box button and connect the power cable.

2. 220V 电源接线方法：

220V power supply connection method:

4 平方电源线，一根地线，
一根零线，一根火线

4 square power cable, one ground wire, one neutral wire, one live wire

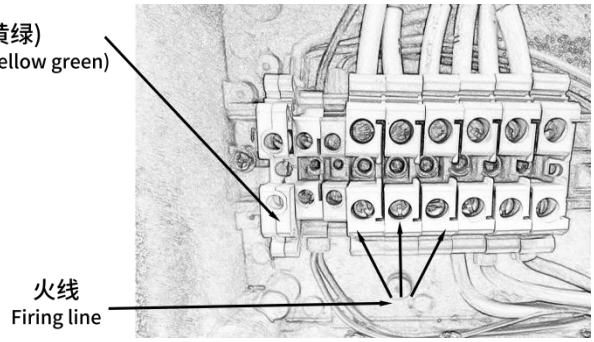


380V 电源接线方法：

380V power connection method:

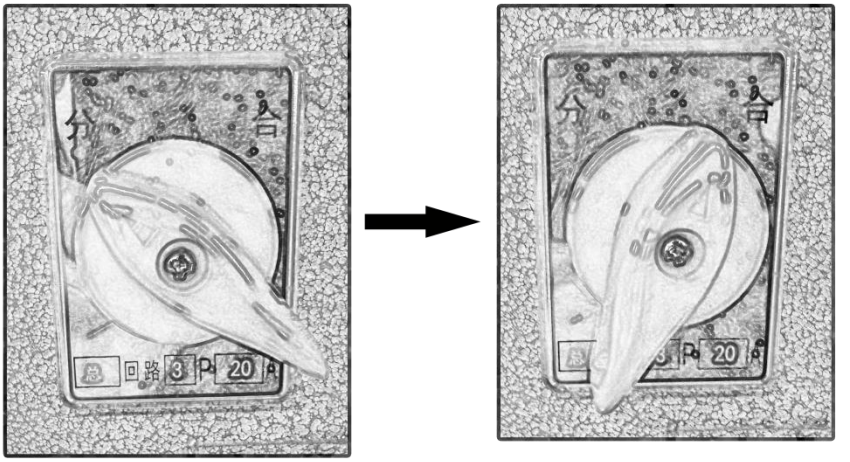
4 平方电源线，一根地线，三根火线

4 square power cables, one ground wire, three live wires



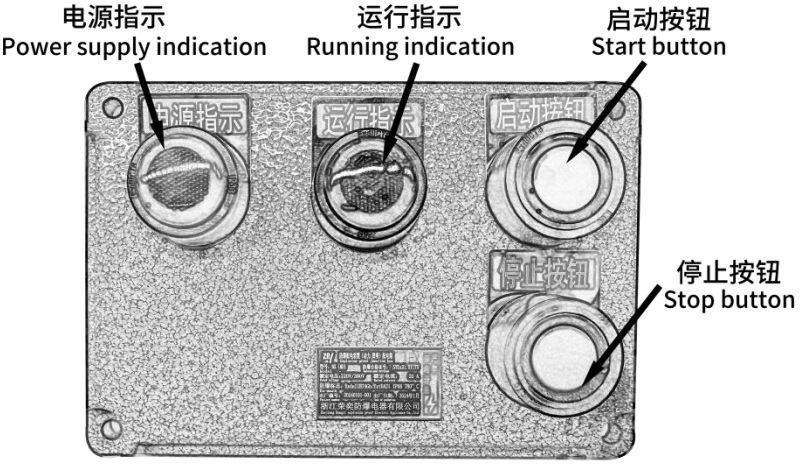
3. 接好线后，右旋分合，设备通电。

After the wire is connected, the right turn is switched on and the equipment is powered on.



4.点击启动按钮，检查吸尘口

Press the forward button and check the suction port



吸尘口吸气，启动按钮开始工作，停止按钮停止工作

When the suction port is aspirated, the start button starts working, and the stop button stops working

吸尘口吹气，点击停机按钮，等待一分钟后，

断开总电源，调换任意两根火线位置，重新启动，检查吸尘口是否吸气

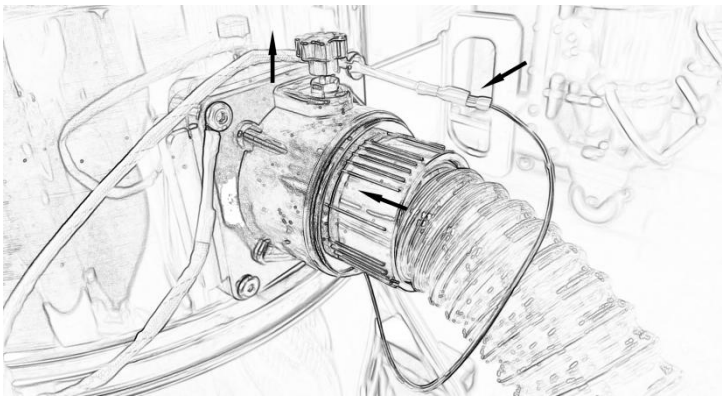
Blow the suction port, click the stop button, wait for one minute,

Disconnect the main power supply, replace any two live wires, restart, and check whether the suction port is aspirated

五、配件使用（Accessory use）

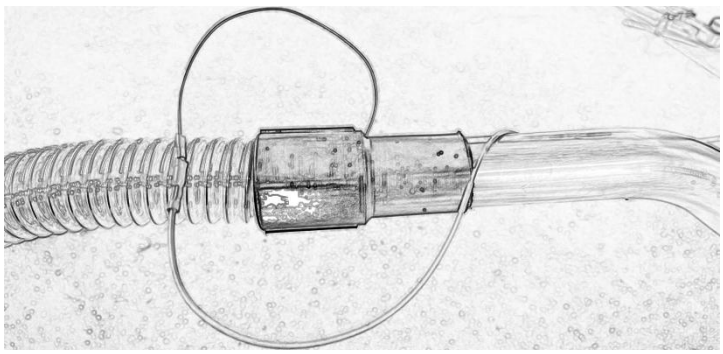
1. 将吸尘软管一头的接驳嘴插入吸尘口（拉起拉销插入吸尘口），连接去静电线

Insert the connector at one end of the suction hose into the suction port (pull up the pull pin and insert it into the suction port), and connect the cable to the vacuum cable



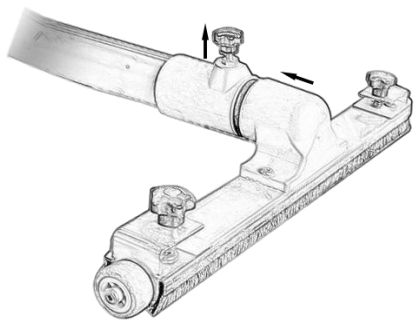
2.吸尘软管橡胶端插上 S 型吸尘管

Connect the rubber end of the suction hose to the S-shaped suction pipe



3.吸尘扒（拉起拉销）插入 S 型弯管内

The vacuum cleaner (pull up the pull pin) is inserted into the S-bend

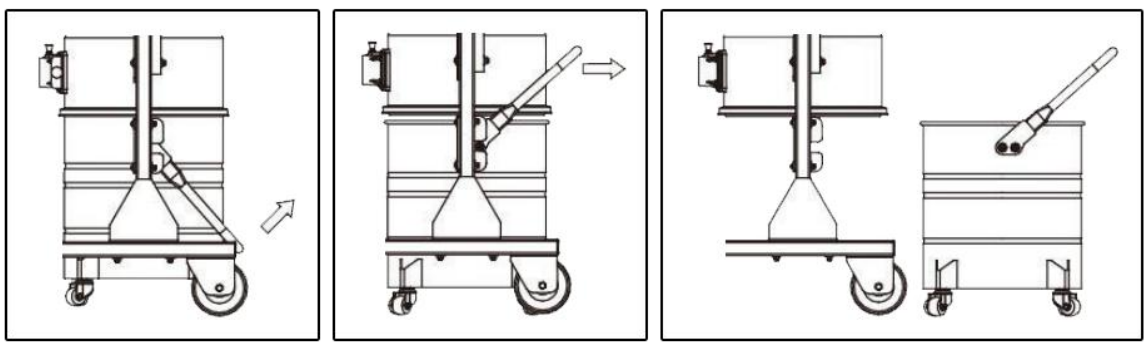


4.软管橡胶接头端还可插入扁吸嘴和圆毛刷
The hose rubber connector can also be inserted into the flat suction nozzle and round brush

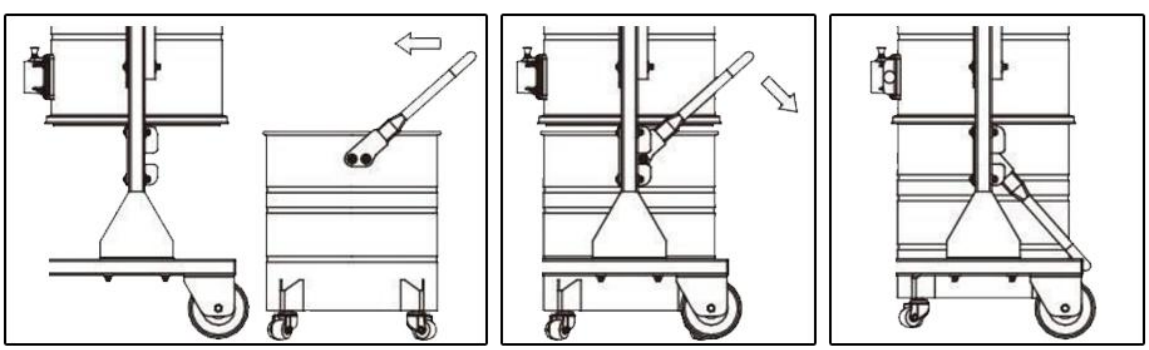


六、集尘桶的使用（**The use of dust bucket**）

先关闭吸尘开关和电源，拔下吸尘软管，抬起压杆往后拉即可拿下尘桶，倾倒垃圾。
Turn off the suction switch and power supply, remove the suction hose, lift the pressure rod and pull back to remove the dust bucket and dump the garbage.



安装集尘桶（Install a dust bucket）



安装集尘桶的时候请注意桶是否密封！
When installing the dust bucket, please pay attention to whether the bucket is sealed!

七、手动反吹清灰（Manual backblow ash removal）

当滤网堵塞吸力减小时，必须清理滤网，手动反吹清灰方式

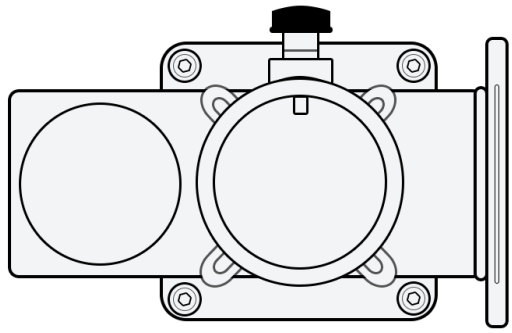
When the suction of the filter is reduced, it is necessary to clean the filter and manually reverse blow the ash

1.开机情况下把密封板往左推，

遮挡吸尘口

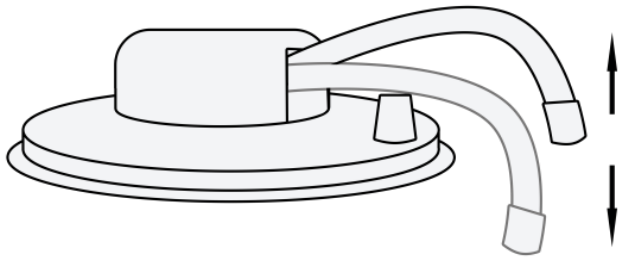
Push the seal plate to the left while it's on,

Cover the suction port



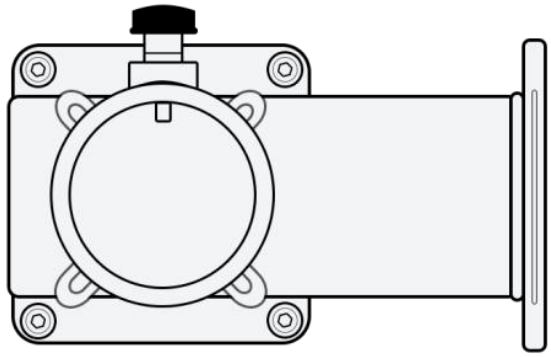
2.反复按压反吹手几次即可

Press the backblower several times



3.密封板向右推开，使吸尘口正常通风

Push the sealing plate to the right to ventilate the air suction port



日常维护（Routine maintenance）

1.清洁机器时，使用含水或中性清洁剂的湿布擦拭，主机头不能浸入水中清洗，也不能使用含有腐蚀性的清洁剂材料，否则很容易导致外壳龟裂。

When cleaning the machine, use a wet cloth with water or neutral detergent to wipe, the host head can not be immersed in water to clean, nor can you use corrosive cleaning materials, otherwise it is easy to lead to cracks in the shell.

2.软管不能频繁的折叠，也不能过度的拉伸和弯曲，避免影响到后期的使用。

The hose can not be folded frequently, nor can it be stretched and bent excessively, so as to avoid affecting the later use.

3. 定期清理桶内杂物和各类吸尘附件，尘格尘袋每次工作完成后要进行清洁，检查有没有穿孔和漏气的情况，在清洗完成以后要注意吹干。

Regularly clean the debris in the bucket and all kinds of vacuuming accessories. The dust bag should be cleaned after each work is completed, check whether there is perforation and air leakage, and pay attention to blow drying after cleaning.

4. 定期检查电源线和插头是否存在破损的情况，用完以后的电源线一定要绕成一扎置于机头顶盖挂钩上。

Regularly check whether the power cord and plug are damaged, and the power cord must be wound into a bundle and placed on the hook of the head cover after use.

5. 当发现主机发热严重、发出焦味时，或者是出现了异常的振动和响声时，要及时送修，不能继续使用设备。

When it is found that the main machine has serious heat, burnt smell, or abnormal vibration and sound, it should be sent for repair in time and cannot continue to use the equipment.

6. 吸尘或吸水工作完成以后要注意检查设备的进风口有无堵塞的情况或者是杂物，否则需要进行清理，检查设备的浮波是否出现破损的情况。

After vacuums or water absorption work is completed, pay attention to check whether the air inlet of the equipment is blocked or debris, otherwise, it is necessary to clean up and check whether the floating wave of the equipment is damaged.

7. 工业吸尘器使用要注意避免出现外力撞击的情况，设备尽量停放在通风干燥的场所。

The use of industrial vacuum cleaners should pay attention to avoid external impact, and the equipment should be parked in a ventilated and dry place as far as possible.

8. 不要让工业吸尘器处于长时间连续工作状态，工作时间尽量控制在 5 小时以内停机 1-5 分钟，否则会影响到设备的使用寿命。

Do not let the industrial vacuum cleaner work continuously for a long time, and try to control the working time within 5 hours and stop for 1-5 minutes, otherwise it will affect the service life of the equipment.

9. 设备在长期使用过程中，过滤网很可能会出现堵塞情况，导致设备的吸力下降，为了防止这一问题，在使用的时候要定期清理滤芯，清洗完成以后要注意晾干再使用。

During the long-term use of the equipment, the filter is likely to be blocked, resulting in a decrease in the suction of the equipment. In order to prevent this problem, the filter element should be cleaned regularly when in use, and it should be dried after cleaning.

风机保养（Fan maintenance）

1.风机应放置在较平稳的地方，周围环境应清洁、干燥、通风。

The fan should be placed in a stable place, and the surrounding environment should be clean, dry and ventilated.

2.风机叶轮旋转风向必须于机盖、消音器上所标箭头方向一致。

The rotating wind direction of the fan impeller must be consistent with the direction of the arrows marked on the cover and silencer.

3.由于风机除电机转子两只轴承外，其他部位没有直接接触摩擦，因此，只要像一般电动机一样定期维修个给两端轴承加润滑剂即可。

Because the fan has no direct contact friction except for the two bearings of the motor rotor, it is necessary to add lubricant to the bearings at both ends as long as it is regularly repaired like a general motor.

4.进出气两端的过滤网和消音器应根据情况适时清洗，一面堵塞影响使用。

The filter net and silencer at both ends of the inlet and outlet gas should be cleaned timely according to the situation, and one side of the blockage affects the use.

5.进出气口外连接必须采用软管连接。

The external connection of the inlet and outlet must be connected with a hose.

为了你的吸尘器获得有效的保修服务，请详细记录下全部的维修保养过程并存档。

In order to obtain effective warranty service for your vacuum cleaner, please record all repair and maintenance process in detail and file.

维修日期（Maintenance date）	维修更换项目（Maintenance and replacement items）	维修人员（Maintenance personnel）

故障排除

故障	原因	处理方法
电机不启动	无电压	● 检查电缆、电线、插头、保险及插座
	开关设置不正确	● 打开电机开关
电机反转	火线接反	● 任意更改插头处两根火线的位置
马达线圈烧毁	电流超过规定负荷 缺相 堵塞并长时间成真空负载	● 检查电源、电压 ● 检查电缆、电线、插头、插座 ● 电机修理 ● 参照吸力减弱的处理方法
吸力减弱	过滤器、吸嘴、吸尘软管堵塞 或损坏	● 清空集尘桶 ● 将吸尘器、吸尘管内的阻塞物清除出来 ● 清理/更换过滤尘隔
吸尘时,灰尘外溢	过滤器安装不正确或损坏	● 检查滤袋的安装位置 ● 检查过滤器是否损坏 ● 检查密封件

troubleshooting

breakdown	reason	Treatment method
Motor failure	no-voltage	● Check cables, wires, plugs, insurance and sockets
	The switch Settings are incorrect	● Open the motor switch
Motor reversal	The fire wire is reversed	● Arbitrarily change the position of the two firewires at the plug
Motor coil burnout	The current exceeds the specified load	● Check the power supply and voltage ● Check cables, wires, plugs, sockets ● Motor repair ● Refer to the treatment method of weakening suction
Reduced suction	Phase loss	● Empty the dust bucket ● Remove the blockage in the vacuum cleaner and vacuum pipe ● Clean/replace the filter
When vacuuming, dust spills out	Jam and vacuum load for a long time	● Check the installation position of the filter bag ● Check the filter for damage ● Check the seals

从保修卡的销货日期起，本公司对所购买的真空吸尘器保修 12 个月。

Vacuum cleaners purchased by the company are guaranteed for 12 months from the date of sale of the warranty card.

以下情况保修单被视作无效：被未授权的第三方修理过并安装了非丰耀及授权单位提供的设备或配件；机器的序列号被更改或缺失

The warranty shall be deemed invalid if the equipment or accessories provided by non-Fengyao and authorized units have been repaired and installed by an unauthorized third party; The serial number of the machine is changed or missing

丰耀保证在保修期内免费修理或者替换那些有质量问题的部件。 修理必须在丰耀的修理点或者在我们认可的技术服务中心，寄给我们修理的机器运费需已付（运费由买方支付，除非另有协议)。

Fengyao guarantees free repair or replacement of those parts with quality problems during the warranty period. Repairs must be made at Fengyao repair points or at our approved technical service centers, and the freight of the machine sent to us for repair shall be paid (the freight shall be paid by the buyer, unless otherwise agreed).

保修单不包含任何清洁部件的服务。

The warranty does not cover any cleaning of the parts.

任何关于材料的质量问题和生产缺陷只能在我们的专业设备上检查或者在我们认可的技术服务中心 检测。 如果并非是生产质量问题，全部相关修理更换费用由买家承担。

Any material quality problems and production defects can only be checked on our professional equipment or at our approved technical service center. If it is not a production quality problem, all related repair and replacement costs shall be borne by the buyer.

所出具的保修卡必须随同机器本身交给负责维修的技术人员。

The warranty card issued must accompany the machine itself to the technician responsible for the repair.

报修单不包括：由运输，粗心或者不适当的处理引起的意外损坏，未按照说明书里的指示使用， 在非正常的操作下引起的机器损坏。 对人为损坏或不当使用不负保修责任。

The warranty does not cover: accidental damage caused by transportation, careless or improper handling, failure to follow the instructions in the manual, damage caused by improper operation. No warranty liability for artificial damage or improper use.

以下情况，生产商不负任何责任（The manufacturer is not responsible for）：

没按使用说明书操作（Did not follow the instructions）

使用非原配零件及配件（Use non-original parts and accessories）

没有正确的保养机器（The machine is not properly maintained）