

运行和维护手册

Operation and Maintenance Manual

烧结板除尘器

Sintered Plate Dust Collector

本手册按照模块化的功能编排，可能不包含所有章节。

This manual is organized in a modular format and may not contain all chapters.

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1.0 技术参数 Technical Parameters

除尘器限制条件 Restrictive Conditions of the dust collector

应用.....展示用
 Application.....Sample
 粉尘类型.....无
 Dust type.....N/A

本除尘器的设计目的是从气体中分离固体物质；

本除尘器不适用于除菌和/或除病毒；

除尘器内部不得引入任何点火源！

绝不要把除尘器当成垃圾槽！

This dust collector is designed to separate solid substances from the gas;

It is not suitable for the removal of bacteria and/or virus removal;

No ignition source should be introduced inside the dust collector!

Never perceive the dust collector as a garbage trough!

本除尘器只适用于如下参数

This dust collector is only applicable for the following parameters:

粉尘特性 Dust characteristic.....设计值 design values
 粒径 Particle size.....~3um
 温度 Temperature.....≤50 °C
 磨损性 Abrasiveness.....常规 Regular
 流动性 Mobility.....常规 Regular

安装地点 Installation place

室内/户外安装.....室内
 Indoor/outdoor installation.....indoor
 适用环境.....非爆炸性环境
 Applicable environment.....Non-explosive environments

清灰系统 Dust cleaning system

运行压力 Operating pressure.....0.3 MPa

容许误差 Admissible error-0.03/+0 MPa

分气箱最大工作压力

Maximum working pressure of the Pulse-air manifold0.52 MPa

电控系统 Electric control system

供电.....220V/AC（无电机）或 380V/AC（有电机），50Hz

Power supply.....220V/AC（without motor）or 380V/AC（with motor），50Hz

清灰电磁阀控制电压

The control voltage of the dust cleaning electromagnetism valve.....24V/DC

清灰系统类型.....定时/定差压

Types of dust cleaning systems timing/fixed differential pressure

脉冲长度 Pulse length.....40 ms

脉冲间隔（定时模式@5min 清灰周期，可视工况调整）.....300/电磁阀数 s

Pulse interval (timing mode @5min dust removal cycle, adjustable according to working conditions)

（另请参见章节 7 设备图纸中的技术参数表）

(See also the table of technical parameters in the equipment drawings in Chapter 7)

检查和维护周期（另请参见 6.10 章节）

Inspection and maintenance cycle (see also chapter 6.10)

周期 Cycle	项目 Item	说明 Illustration	参考 Reference
每天 daily	排灰情况 Dust disposal	检查工作状况 Check the working condition	原始手册（必要时） The original manual (when necessary)
每天 daily	清灰系统 Dust cleaning system	检查清灰系统压力、脉冲和 间隔时间 Check the pressure, pulse and interval of ash cleaning system	5.40.10
每天 daily	仪表 Instrument	比较实测值与标准值并记录 （必要时） Compare measured values with standard values and record them (when necessary)	
每 3 个月 Every 3 months	净气室内的可燃、易爆粉尘、 混合物和/或可燃 气体 Combustible, explosive dust, mixtures and/or combustible gases in the air purification chamber	<ul style="list-style-type: none"> – 除尘器断电 – 打开净气室 – 灯光检查净气室是否清 洁。粉尘的堆积是运行 状况异常的征兆 – 再次关上检查孔 – - Dust collector power off – - Open the air cleaner – - Lighting check for cleanliness of the air cleaner. Dust accumulation is a sign of abnormal operation – - Close the inspection hole again 	
每 6 个月 Every 6 months	净气室 air cleaner	<ul style="list-style-type: none"> – 除尘器断电 – 打开净气室 – 灯光检查净气室是否清 洁。粉尘的堆积是运行 状况异常的征兆 – 再次关上检查孔 – - Dust collector power off – - Open the air cleaner 	

		<ul style="list-style-type: none"> - Lighting check for cleanliness of the air cleaner. Dust accumulation is a sign of abnormal operation - Close the inspection hole again 	
每 6 个月 Every 6 months	过滤减压阀 filter regulators	清理罩杯内的漂浮物（如为自动排水型） Clean up floats in cups (e.g. automatic drainage)	见 OEM 部件说明书 See OEM Component Instructions
每 6 个月 Every 6 months	差压取样头 Differential pressure sampling head	清理过滤棒 Clean the filter rod	6.60.xx
每 12 个月 Every 12 months	除尘器壳体 Housing for the dust collector	检查壁板以及内件的磨损痕迹 Inspect the wear marks on wall panels and interiors	
每 12 个月 Every 12 months	过滤元件密封圈 （可燃、易爆粉尘和/或混合物） Filter element seal ring (combustible, explosive dust and/or mixtures)	更新密封圈 Renew the Seal Ring	6.40.xx
每 12 个月 Every 12 months	过滤元件 （可燃、易爆粉尘和/或混合物） Filter element (Combustible, explosive dust and/or mixtures)	检查过滤元件的损坏情况并更新（必要时） Check the damage of filter elements and update (when necessary)	
每 3 年 Every 3 years	过滤元件密封圈 Filter element seal ring	更新密封圈 Renew the Seal Ring	6.40.xx

常见故障（另请参见 6.20 章节）

Common breakdown (see also Section 6.20)

故障 breakdown		
	原因 causes	补救措施 remedial measures
粉尘从净气排放口冒出，净气室内有粉尘 Dust rises from the discharge outlet, and there is dust in the clean air chamber.		
	过滤元件密封圈老化、变形、破损 Aging, deformation and damage of the seal ring of filter elements	更新密封圈，请参见 6.40.x Renew the seal ring, See 6.40.x
	灰斗严重积灰上拱，造成过滤元件变形和密封圈泄漏 Dust bucket has serious dust deposition and knuckle up, causing deformation of filter element and leakage of seal ring.	清理灰斗积灰，过滤元件和密封圈复位，请参见 6.30.x Clean up the dust deposition, filter element and reset the seal ring. See 6.30.x.
	过滤元件损坏 The filter element is damaged.	更换过滤元件，请参见 6.30.x Replace the filter element. See 6.30.x.
过滤元件上粉尘结层或者结块 Dust layer or agglomeration on filter element		
	粉尘没有排出 Dust is not discharged.	确保粉尘排出（手动或自动） Ensure that dust is discharged (manually or automatically)
	清灰系统根本未工作或者工作欠佳 The cleaning system is not working at all or is not working well.	检查脉冲清灰系统，请参见 5.40.10 Check the pulse cleaning system. See 5.40.10.
	偏离了预期的使用，工况参数发生了变化，例如：温度太高或处理气量太大 Deviating from the expected use, the operating parameters have changed, such as overly high temperature or too much gas handling capacity,	纠正工况参数，并让除尘器在无粉尘的状态下运行约 1 小时（清灰系统要运行） correct the operating parameters, and allow the dust collector to run for about 1 hour in a dust-free state (dust cleaning system is running)
处理气量减少 Reduction of gas handling capacity		
	清灰系统根本未工作或者工作欠佳	检查清灰系统，请参见 5.40.10

	The ash cleaning system is not working at all or is not working well.	Check the dust cleaning system. See 5.40.10.
	除尘器有粉尘泄漏 Dust Leakage	<ul style="list-style-type: none"> - 关上检查孔 - 检查粉尘排出系统的泄漏 - 密封或者清理吸入管道 - Close the Inspection Hole - Inspection of leaks in dust discharge systems - Seal or clean the suction pipes
	过滤元件的压降太高 Too much pressure drop of the filter element	<p>与烧结板科技联系</p> <ul style="list-style-type: none"> - 处理气量太大：调风阀关小或降低风机的转速 - 过滤元件更新或再生 - 检查清灰系统差压设定值（如有），更改设置（必要时） <p>Technological Connection with Sintered Plate</p> <ul style="list-style-type: none"> - Too much air handling capacity: turn down the air regulating valve or reduce the speed of the fan - Updating or regeneration of filter elements - Check the differential pressure settings of the ash cleaning system (if any), and change the settings (when necessary) -
	粉尘没有排出 Dust is not discharged.	<p>确保粉尘排出（手动或自动）</p> <p>Ensure that dust is discharged (manually or automatically)</p>
	偏离了预期的使用，工况参数发生了变化，例如：温度太高或处理气量太大 Deviating from the expected use, the operating parameters have changed, such as overly high temperature or too much	<p>纠正工况参数，并让除尘器在无粉尘的状态下运行约 1 小时（清灰系统要运行）</p> <p>Correct the operating parameters, and allow the dust collector to run for</p>

	gas handling capacity	about 1 hour in a dust-free state (ash cleaning system to run)
清灰系统不工作 Cleaning system does not work		
	压缩空气被关断了 The compressed air is turned off	去把那个阀打开 Open that valve.
	压缩空气供应不足 Insufficient supply of compressed air	检查压缩空气的品质和气量 Check the quality and quantity of the compressed air
	电控系统 Electric control system checking power supply	检查供电 Check power supply
	清灰系统定差压运行模式 Fixed Differential Pressure Operation Mode of Ash Cleaning System	当前尚未触发清灰动作 Currently no dust removal action has been triggered
清灰时电磁阀没有打开 The solenoid valve did not open during ash cleaning		
	电缆损坏 Cable damage check and update solenoid valve cable	检查和更新电磁阀电缆 Check and update solenoid valve cables
	排气口堵塞 Blockage of Exhaust Port	清理电磁阀，请参见 6.60.x Clean the Solenoid Valve, See 6.60.x
	线圈失效 Coil failure.	更换电磁阀，请参见 6.60.x Replace solenoid valve. See 6.60.x.

清灰电磁阀无法关闭，压缩空气持续泄漏 Dust cleaning solenoid valve can not be closed, and the compressed air continues to leak

	电磁阀有污秽 Solenoid valves are dirty.	清理电磁阀，请参见 6.60.x Clean up solenoid valves. See 6.60.x.
	密封垫片磨损 Seal gasket wear and tear.	更换膜片，请参见 6.60.x Replace diaphragm. See 6.60.x.
	膜片撕裂 Diaphragm tear.	更换膜片，请参见 6.60.x Replace the diaphragm. See 6.60.x.
	弹簧破损 The spring is damaged.	更换弹簧，请参见 6.60.x Replace the spring. See 6.60.x.
	衔铁无法关闭	更换电磁阀，请参见 6.60.x

	The armature cannot be closed.	Replace solenoid valve. See 6.60.x.
安全阀漏气，压缩空气持续泄漏 Safety valve leaks air, and the compressed air also continues to leak		
	安全阀打开了 Safety Valve is opened	<ul style="list-style-type: none"> - 分气箱内的压力过高：纠正过滤减压阀的设定 - 更换安全阀：注意，千万不要去修理安全阀 - Excessive Pressure in the Divider: Correct the Setting of the Filter Pressure Relief Valve - Replace the safety valves: Do not repair the safety valves
过滤减压阀漏气，压缩空气持续泄漏 Filter pressure relief valve leaks air, and compressed air also continues to leak		
	自动沉降口的浮球污秽 Floating ball contamination at automatic settler.	请联系烧结板科技，不得自行清理 Please contact Sintering Plate Technology and do not clean it by yourself.
控制系统报警 Alarm from the control system		
	处理气量太大 The amount of treated gas is too much	调整到额定的处理气量 Adjust to the rated amount
	控制系统 Control System	参考控制系统文档中的故障处理章节，或与烧结板科技联系 Reference to the Breakdown Handling Chapter in the Control System Document, or contact with Sintered Plate Science and Technology
	偏离了预期的使用，工况参数发生了变化，例如：温度太高或处理气量太大 Deviating from the expected use, the operating parameters have changed, such as overly high temperature or too much gas handling capacity	纠正工况参数，并让除尘器在无粉尘的状态下运行约 1 小时（清灰系统要运行） Correct the operating parameters, and allow the dust collector to run for about 1 hour in a dust-free state (ash cleaning system to run)
	清灰系统根本未工作或者工作欠佳 The ash cleaning system is not working at all or is not working well.	检查清灰系统，请参见 5.40.10 Check the ash cleaning system. See 5.40.10.
	粉尘没有排出 Dust is not discharged.	确保粉尘排出（手动或自动） Ensure that dust is discharged (manually or automatically)

	差压取样头的过滤棒污秽 The filter rod of differential pressure sampling head is dirty.	清理过滤棒，请参见 6.60.xx Clean up the filter rod. See 6.60.xx.
	差压取样管打结、泄漏，或接反了 Knotting, leakage, or reversed connection of differential pressure sampling tube	检查差压取样管 Check differential pressure sampling tube

2.00 安全规程 Safety Procedures

2.10 运行和维护规程 operation and maintenance procedures

您的除尘器是一台依据最新技术和安全规范制造的机器。

Your dust collector is a machine manufactured according to the latest technology and safety specifications.

运行和维护规程
Operation and maintenance procedures

熟悉和遵守本《运行和维护手册》中的规程，对于避免造成人身伤害和设备损坏是至关重要的。这本《运行和维护手册》中包含了在完全安全的情况下运行本除尘器的最重要的指示。如有需要，欢迎咨询进一步的信息。

Familiarity with and compliance with the procedures in this operating and maintenance manual are essential to avoid personal injury and equipment damage. This contains the most important instructions for running the Dust collector in complete safety. If necessary, please feel free to contact for further information.

所有在本除尘器上工作的人员都必须严格遵守本《运行和维护手册》中的规程。

All personnel working on this dust collector must comply strictly with the procedures in this.

规程的获取
Acquisition of procedures

运行人员应当任何时候都能够在除尘器旁查阅到本《运行和维护手册》。

Operators shall be able to access the *Operation and maintenance manual* near the dust collector at any time.

其它规程
Other procedures

除了本《运行和维护手册》中的规程外，所有为了防止事故发生和保护环境的国家强制性安全规程、条例和法律都必须严格遵守。

In addition to the procedures in the *Operation and maintenance manual*, all national Mandatory safety regulations, regulations and laws to prevent accidents and protect the environment must be strictly adhered to.

工作规程

当本除尘器被集成到某复杂的生产系统中时，业主应该制

**Working
procedures**

定补充工作规程以满足特殊要求，例如：正确的启动顺序。
When the precipitator is integrated into a complex production system, the owner should develop additional work procedures to meet special requirements, such as the correct startup order.

2.20 预期用途 Intended Use

本除尘器是根据用户提供的信息而设计的。该信息的正确性是除尘器供货合同成立的条件之一。This dust collector is designed according to the information provided by the user. The correctness of this information is one of the conditions for the establishment of the Dust Collector supply contract.

本除尘器预期是专门用于分离在“1 技术参数”中定义的物料，并在所声明的预期用途下运行。用户有责任确保实际工况参数与载明的工况参数一致。

This dust collector is expected to be specifically designed to separate the items defined in the "1 technical parameters" and to operate under the declared intended use. It is the user's responsibility to ensure that the actual operating conditions are consistent with the parameters specified in the operating conditions.

移作它用或者超过所指定的工况参数，将被视为误用，制造商将不承担由此引起的任何财产损失或人员伤害；此类情况下，将由除尘器的用户独自承担风险。

If it is used for other intention or exceeds the specified operating conditions, it will be deemed to be misused and the manufacturer will not be liable for any property loss or injury caused by it. In such cases, only the user of the dust collector will be responsible for the risk.

如果未按照预期用途使用，本机器可能会是多种危害的源头：

- 运行人员的安全危害
- 对本机器以及其它财产的损害
- 本机器的效率

If not used as intended, the machine may be the source of a variety of hazards:

- Safety hazards of the operators
- Damage to the machine and other property
- The efficiency of the machine

考虑到特定应用、安装点、与其它机器结合使用等情况下可能存在的特殊危害，用户有责任制定必须的补充安全规程和措施！

Taking into account the particular hazards that may exist in the case of specific applications, installation points, combined use with other machines, it is the user's responsibility to develop the necessary additional safety procedures and measures.

尽管这些预防措施都有了，在特定情况下，本除尘器还是有可能成为损害人员和财产安全的源头：

- 除尘器没有在预期用途下运行
- 除尘器在没有配备安全设施的情况下运行
- 安全预防措施被忽视了
- 当除尘器尚在运行中进行清理或修理工作

符合预期的用途同样还需要包括：

- 遵守运行和维护规程
- 遵守检查和维护周期（请参见章节 6），并充分考虑了相应的安全规程

除尘器的安装和运行必须符合国家的强制性法规。用户有责任遵守这些法规

Although these precautions are available, in certain circumstances, the precipitator is likely to be a source of damage to the safety of persons and property:

- The dust collector is not running under the intended use
- The Dust collector runs safety precautions without safety facilities
- Safety precaution measures are neglected.
- Do the cleaning or repair work while the dust collector is still in operation

The intended use also needs to include:

- Compliance with operating and maintenance procedures
- Compliance with inspection and maintenance cycles (see Chapter 6), taking full account of the corresponding safety regulations
- The installation and operation of the precipitator must comply with the mandatory regulations of the state. Users are responsible for complying with these Regulations

2.30 术语和定义 Terminology and definitions

除尘器

The dust collector

在本《运行和维护手册》中，所提到的用于分离影响环境或者人体健康的粉尘的设备/机器就是除尘器。

In this *Operation and maintenance manual*, your equipment/machine mentioned for separating dust that affects the environment or human health is the dust collector.

用户

User

需要本除尘器来作为辅助或者主要生产设备、或者来满足职业安全要求的人员。

The personnel who need the precipitator as the auxiliary or the main production equipment, or to meet the occupational safety requirements.

运行人员

The operator

经过授权、培训和指导来执行相关的运输、组装、启动、运行、维护、清理和修理本机器的人员。The personnel who is authorized, trained and directed to carry out the relevant work of transporting, assembling, starting, operating, maintaining, cleaning and repairing the machine.

当遇到电气、气压和液压设备时，必须由有资质的专业人士来处理。

When electrical, pneumatic and hydraulic equipment is encountered; a qualified professional must handle it.

标识符

Identifier

标识符用在本《运行和维护手册》中，是为了引起对特殊危害和问题警告的注意。



Identifiers are used in this *Operation and maintenance manual* to draw attention on the special hazards and warnings.



警告： 不遵守这个信息可能会导致人身伤害和财产损失

Warning: Non-compliance with this information may result in



personal injury and property damage



注意： 处理排出的粉尘会弥散大量的粉尘到空气中—佩戴防尘面罩



Note: Handling discharged dust that can disperse a lot of into the air—wear a dust mask



注意： 必须由专业人士来从事这个工作



Note: The work must be carried out by professionals



注意： 必须由专业人士来从事电气系统的工作



Note: the electrical system must professionals



注意： 必须由专业人士来从事气压系统的工作



Note: The work of the air pressure system must be carried out by Professionals



注意： 必须由专业人士来从事液压系统的工作



Note: The work of the hydraulic system must be carried out by professionals

注意： 除尘器启动之前必须接地，并且所有的管段必须相互导电并导通到除尘器。

Note: The dust collector must be grounded before starting, and all pipe segments must be conductive to each other and lead to the dust collector.

注意： 关于您的特定粉尘，您必须获取充分的安全特性，能用于评估爆炸和/或着火危害，并确定保护措施。

Note: With regard to your specific dust, you must obtain adequate

safety features that can be used to assess explosion and/or ignition hazards and to determine protective measures.

注意：请参见章节 1 “技术参数” 确定您的除尘器可以使用在何种爆炸性区域内。这是不可以泛泛而论的，因为必须考虑到电气部件的防护类型和点火保护措施。

Note: see section 1, "Technical parameters", to determine in what explosive area can your dust collector be used. This cannot be broadly addressed, as the type of protection for electrical components and ignition protection measures must be taken into account.

2.40	制造商提出的措施	The measures proposed by the manufacturer
标识	除尘器上有各种标识以引起对特定危害和问题警告的注意，请参见章节 1 “技术参数”	
Markings	There are various markings on the dust collector to attract attention to specific hazards and problem warnings, see section 1 "Technical parameters"	
2.50	用户/运行人员需采取的措施	The measures that User/Operator should take
标识	如果过滤系统上有标识，运行人员必须遵守上面所示的规定。	
Markings	If there is a mark on the filtration system, the operator must comply with the requirements shown above.	
运行人员需满足的条件	在机器上开始任何工作之前：	
The conditions should be met by the operator	Before starting any work on the machine: <ul style="list-style-type: none">– 运行人员必须被告知有关的危害– 运行人员必须阅读本《运行和维护手册》。用户应通过书面方式确认运行人员已经阅读过并且理解《运行和维护手册》。– The operator must be informed the hazards involved– The operator must read the <i>Operation and maintenance manual</i>. The user should confirm in writing that the operator has read and understands the operation and maintenance manual.	
需要用户来满足的条件	在机器上开始任何工作之前：	
Conditions that require the user to meet	Before starting any work on the machine: <ul style="list-style-type: none">– 用户必须使运行人员同意佩戴个人防护装备的必要性，尤其是处理粉尘时要佩戴防尘口罩。– 用户必须清晰地划出除尘器运行、维护和修理的责任界限，这样在安全相关的职责和责任方面就不会有争议	



	<ul style="list-style-type: none">- The user must enable the operator to agree to the need to wear personal protective equipment, especially wearing a dust mask when handling dust.- The user must clearly delineate the boundaries of responsibility for the operation, maintenance and repair of the dust collector, so that there will be no dispute in terms of the responsibilities and responsibilities associated with safety.
当运行除尘器时有职责去关注的 When running a dust collector with the responsibility to pay attention to	<ul style="list-style-type: none">- 运行人员启动除尘器之前，必须确信没有人在危险区域内- 除尘器只能在状态良好时投运- 必须按规定操作以确保工作场所内有充分的新鲜空气- Before starting the dust collector, the operator must be sure that no one is in the dangerous area- The dust collector can only be operated in good condition- Operation must be done in accordance with the regulations to ensure that the workplace has sufficient fresh air supply
原厂部件和附件 original parts and accessories	<ul style="list-style-type: none">- 原厂部件和附件是专为本除尘器设计的。其它来源的备件未经制造商的测试和验证，安装和/或使用这样的产品可能会造成某些与设计参数相关的设备特性变化和造成安全的危害。由于使用了非原厂的部件和附件、或者部件的错误安装和替换导致的损坏，制造商将不承担责任。- The original parts and accessories are designed for this dust collector. Spare parts from other sources are not tested and validated by the manufacturer, and the installation and/or use of such products may result in certain changes in equipment characteristics and safety hazards associated with the design parameters. Manufacturers will not be liable for damage caused by the use of non-original parts and accessories, or faulty installation and replacement of components.
水源保护 Water source protection	<p>含有对水源潜在危害的物质必须小心地加以处理，以防带来任何污染。</p> <p>Substances containing potential hazards to water sources must be handled with care in case of any pollution.</p>
防火 Fire protection	<p>作为预防性安全措施，可燃粉尘必须每周一次从集尘桶中或类似的装置内清理掉，或者根据粉尘的产生量来确定清理周期，但上限不能超过集尘桶 25%容积。</p> <p>As a preventive safety measure, combustible dust must be cleaned up once a week from the dust collector or similar device, or determine the cleaning cycle according to the amount of dust generated, but the upper limit can not exceed the volume of dust collector 25%.</p>

用户必须在周工作规程中制定必要的组织措施，并且与运行人员直接挂钩。

The user must establish the necessary organizational measures in the weekly work procedures and be directly linked to the operator.

必须事先告知消防部门关于除尘器潜在的火灾风险。必须由消防部门或除尘器负责人制定一个迅捷正确的消防应急预案。该应急预案必须包括灭火剂及其存储，灭火程序等细节。The fire Department must be informed in advance of the potential fire risk of the dust collector. The fire department or the person in charge of the dust collector must develop a quick and correct fire emergency plan. The emergency plan must include details such as fire extinguishing agent and its storage, firefighting procedures and so on.

工作上与除尘器相关的员工必须接受当火灾发生时如何正确行动的培训，消防演习或培训课程必须每年举行一次。

Employees at work who are associated with dust collectors must receive training on how to act correctly when a fire occurs, and fire drills or training courses must be held once a year.


火灾发生时如何行动和需要做什么：

How to act and what needs to be done in the event of a fire:

- 常备手持式灭火器（请确认灭火剂是否适用于燃料和粉尘的混合物）
- 必要时通知消防部门
- 做好个人防护后，小心地打开除尘器的人孔门或检查孔，不要直接站在任何人孔门或检查孔的正面！当孔或门被打开时，火苗可能会爆燃出来。
- 用手持式灭火器灭火（灭火剂必须适用于燃料-粉尘混合物）
- standing handheld fire extinguisher (please confirm whether the fire extinguishing agent is suitable for fuel and dust mixture)
- If necessary, notify the fire department
- Do well in personal protection, carefully open the dust collector's manhole door or check hole, do not stand facing directly to any manhole door or check the front of the hole! The flames may explode.
- Fire extinguishing with a handheld fire extinguisher (the extinguishing agent must be suitable for fuel-dust mixtures)

2.60 净气的处理 NET gas treatment

净气中未被分离出来的粉尘含量总是取决于被分离的是何种物质。当除尘器按照预期用途使用时，净气中未被分离出来的粉尘含量将远低于中国的国家标准。

	<p>The amount of dust that is not separated is always depends on the substance that is separated. When the precipitator is used according to its intended use, the amount of dust that is not separated from the net gas will be much lower than the national standard in China.</p>
固态/气态污染物的分离 Separation of solid/gaseous contaminants	<p>本除尘器采用机械分离的原理，因此无法分离气态污染物。</p> <p>The dust collector uses the principle of mechanical separation, so it is not possible to separate gaseous contaminants.</p> <p>装有风机的除尘器绝对不能将管道连接到用户的通风系统中去（例如空调系统）！</p> <p> A dust collector equipped with a fan must not connect the pipe to the user's ventilation system (e.g. air conditioning system)!</p>
排气管模式 Exhaust pipe Mode	<p>净气应从某工作场所排放到开阔处，并有必要为工作场所提供足够的新鲜空气。采用排气管模式运行取决于环境保护方面国家法律规定的排放限值。</p> <p>Net gas should be discharged from a workplace into the open, and it is necessary to provide sufficient fresh air for the workplace. The adoption of exhaust pipe mode operation depends on the emission limits stipulated by national laws on environmental protection.</p>
净气再循环模式 NET gas recycling mode	<p>净气在工作场所再次循环。</p> <p>Net gas recirculates in the workplace.</p> <p>净气再循环模式取决于粉尘的物料特性，必须遵守粉尘的浓度限值等等（例如最大允许浓度、技术要求的浓度）</p> <p>The net gas recycling mode depends on the material characteristics of the dust, the concentration limit of the dust must be observed, and so on (e.g. maximum allowable concentration, concentration of technical requirements).。</p> <p>净气再循环仅在供暖季节被许可，并且需要得到有关部门的授权。同时必须能够切换到排气管模式。</p> <p>NET gas recycling is permitted only during the heating season and has to be subject to authorization by the relevant authorities. It must also be able to switch to exhaust pipe mode.</p>

2.70 废弃粉尘的处理 the treatment of waste dust

取决于除尘器的预期用途，被分离出来的粉尘后续将作为产品或者废弃物。如果作为废弃物处理，则请咨询您当地的环境保护部门。

Depending on the intended use of the precipitator, the separated dust will serve as a product or waste. If treated as waste, please consult your local environmental protection department.

用户有如下的基本职责：“将废弃物通过密闭容器运送到能正确和安全地处理它们的处理公司去...”

Users have the following basic responsibilities: "to transport waste through closed containers to the processing companies that can handle them correctly and safely..."

废弃物产生者
Waste producer

希望将分离出来的粉尘作为废弃物处理的除尘器用户。
Users of the dust collectors who want to dispose the separated dust as waste.

废弃物
waste

业主希望、或者不得不亲自去处理掉的所有可移动物品，包括污染治理过程中产生的残渣（除尘器的残渣，...）。

All movable items that the owner wants to dispose of, or has to dispose of in person, including the residue from the pollution control process (the residue of the Dust collector,...).

密闭容器
Containers

装废弃粉尘的容器必须密闭，这样粉尘就不会： containing waste dust in closed containers must be closed so that dust does not:

- 进入大气中（环境中）
- 进入地下水（水/环境危害）
- 与人接触：
- 呼吸道、口腔（胃肠道），皮肤吸收
- Get into the atmosphere (environment)
- Get into groundwater (water/environmental hazards)
- Get in contact with humans: respiratory tract, mouth (gastrointestinal tract),
- Skin absorption

废弃物处理
Waste disposal

废弃物处理的含义是利用或者除去废弃物：
Waste disposal means the use or the removal of waste:

- 材料处理过程（从废弃物中获取或者利用某些物质）
- 能量处理过程（使用废弃物作为燃料代用品）

清除
Removal

清除的含义涵盖了：废弃物的运输、转让、收集、处理、储存和填埋的过程。

- 仅在用户的本土国家内
- 不会对公众产生任何的不利影响

不利影响是指当：

- 人民的健康
- 动物和植物
- 水和土壤
- 公共安全和秩序

受到损害的时候。

- The meaning of removal covers the process of transport,

	transfer, collection, handling, storage and landfill of waste.
	<ul style="list-style-type: none"> - in the user's home country alone - no adverse impact on the public
	Adverse effects refer to When:
	<ul style="list-style-type: none"> - People's healthy - Animals, plant water and soil - public safety and order
	are compromised.
正确地	- “正确地”意味着符合法律法规。
安全地	- “安全地”意味着对公众或者环境没有不利影响。
处理公司	- 废弃物可能仅由经批准的运输工具运送并仅由经批准的工厂或设施来处理。
Treat the company	
correctly and	- "correctly" means conforming to laws and regulations.
safely	<ul style="list-style-type: none"> - Safely means that there is no adverse effect on the public or the environment. - Waste may be transported only by approved means of transport and disposed of only by approved plants or facilities.

2.80 噪声排放 noise emission

本除尘器的设计能确保较低的噪声水平。在章节 1 “技术参数”中找到声压级的数值。

This dust collector is designed to ensure a low noise level. The value of the sound pressure level can be found in Chapter 1, "Technical parameters".

安装点的背景噪声影响	<ul style="list-style-type: none"> - 声压级既不包括来自安装点周边环境的背景噪声影响（例如：基准噪声水平），也不包括墙壁等等的反射。
The background noise effects of the installing points	<ul style="list-style-type: none"> - 背景噪声通常是未知的，因此在除尘器设计的时候不作考虑。 - The sound pressure level and does not include the impact of background noise from the surrounding environment of the mounting point (for example, the baseline noise level), nor does it include reflection of walls, etc. Background noise is usually unknown, so it is not considered when the dust collector is designed.
噪声反射	<ul style="list-style-type: none"> - 安装地点的不利条件，例如狭小的空间或不吸音的墙壁或表面可能导致较高的声压级。
Noise reflects	<ul style="list-style-type: none"> - 可能有必要在安装点采取噪声控制措施和/或佩戴听力保护装备。
	不同类型除尘器之间的声压级也是有区别的。
	Adverse conditions at the installation site, such as small spaces



	or non-absorbent walls or surfaces, can lead to higher sound pressure levels. It may be necessary to take noise control measures and/or wear hearing protection equipment at the installation point. There is also a difference between the sound pressure levels of different types of dust collectors.										
集成了风机的除尘器声压级 The sound pressure level described in the sound pressure level of the dust collector	<div>- 所述的声压级是在如下条件下测量的：在固定的安装点运行的除尘器，距离 1m，高度 1.6m。 本测量方法与《无固定工作站的机器导则》相一致。 The sound pressure level described is measured under the following conditions: A dust collector running at a fixed mounting point, at a distance of 1m, and a height of 1.6m. This measurement method is consistent with <i>The Machine Guidelines for Non-fixed Workstations</i>.</div>										
清灰脉冲的容许值 The allowable value of the dust pulse	<div>- 由清灰脉冲引起的声压级已经考虑了 3dB(A)的容许值（根据 DIN45635）此处还要找相关标准，对比我们的实际数据。 The allowable value of 3dB (a) has been taken into account in the sound pressure level caused by the ash cleaning pulse (according to DIN45635) here also has to find the relevant standards, compared to our actual data</div>										
风机附近的声压级 The sound pressure level near the fan	<div>- 所述的风机声压级是参考面的声压级，并符合 DIN45635 中规定的参考面的能量相关条款。 - 参考面声压级是在自由区域条件下、从风机轮廓外 1m 距离、风机的进出风口都有管道连接并且不泄漏噪音、除尘器运行在设计工况点上的时候测量得的。</div>										
构造误差 Structure error	<div>- 构造误差（=无法避免的设计、计算和制造误差）意味着应该允许事先确定的运行参数会发生偏差。这些偏差取决于风机的精度等级。由于安装的特殊因素（例如吸风口和出风口的安装缺陷）导致的运行参数不确定性不属于构造误差。</div>										
离心风机的精度等级（根据 DIN24166）											
<table><tr><td>精度等级</td><td>构造误差值</td></tr><tr><td>0</td><td>+2dB(A)</td></tr><tr><td>1</td><td>+3dB(A)</td></tr><tr><td>2</td><td>+4dB(A)</td></tr><tr><td>3</td><td>+6dB(A)</td></tr></table>		精度等级	构造误差值	0	+2dB(A)	1	+3dB(A)	2	+4dB(A)	3	+6dB(A)
精度等级	构造误差值										
0	+2dB(A)										
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与轴功率相关的精度等级											
<table><tr><td>轴功率值>50 kw</td><td>等级 1</td></tr><tr><td>轴功率值<50 kw</td><td>等级 2</td></tr><tr><td>特殊风机 kw</td><td>等级 3</td></tr></table>		轴功率值>50 kw	等级 1	轴功率值<50 kw	等级 2	特殊风机 kw	等级 3				
轴功率值>50 kw	等级 1										
轴功率值<50 kw	等级 2										
特殊风机 kw	等级 3										
	<div>- The sound pressure level of the fan is the sound pressure level of the reference surface and conforms to the energy related terms of the reference surface specified in the DIN45635.</div>										

- The sound pressure level of the reference surface is measured under the condition of free area, from the 1m distance outside the fan contour, the air outlet of the fan has the pipe connection and does not leak the noise, and the dust collector runs on the design condition point.
 - Structural error Construction errors (= unavoidable design, calculation, and manufacturing errors) mean that pre-determined operating parameters should be allowed to deviate. These deviations depend on the accuracy level of the fan. Uncertainty of operating parameters due to special installation factors, such as the installation defects of the suction vents and vents, is not a structural error.
- Accuracy grade of centrifugal fan (according to DIN24166) Accuracy Grade Construction Error

0	+2dB (A)
1	+3dB (a)
2	+4dB (a)
3	+6dB (a)

Accuracy level axes associated with shaft power

Shaft power value >50 kw Level 1

Shaft power value <50 kw Level 2

special fan kw Level 3

无风机除尘器的
声压级

Fan free sound
pressure grade

- 当被抽吸的介质（空气或其它气体）流经除尘器的时候，声波就会通过除尘器壳体辐射到安装点的周边环境。这个过程中产生的声压级取决于多种因素：
 - 除尘器壳体的几何尺寸（辐射面的尺寸、壁板的厚度和体积等）
 - 体积流量（处理气量）
 - 叠加在这个声压级中的还有循环的清灰脉冲。
- 上述循环清灰脉冲产生的噪声量不包括除尘器的处理气量和其它额外的背景噪声，例如连续排灰设备。
- When the suction medium (air or other gas) flows through the dust collector, the sound waves will radiate to the surrounding environment of the mounting point through the dust collector shell. The sound pressure levels produced in this process depend on a variety of factors:
 - The geometrical dimensions of the Dust collector shell (size of the radiant surface, thickness and volume of the wall plate, etc.)
 - The volume flow rate (the amount of gas)
 - There is also a cyclic ash pulse superimposed in this sound pressure level.

- The amount of noise generated by the above cyclic ash pulses does not include the processing gas volume of the precipitator and other additional background noise, such as continuous ash discharge equipment.
- 推荐 Recommendation 万一有不确定因素或者有特殊要求（例如很低的噪声强制性限值），我们推荐您咨询专业公司或声学专家（也许可以做一个声音鉴定）。
- In the event of uncertainties or special requirements (such as very low noise mandatory limits), we recommend you consult a professional company or acoustics expert (perhaps a sound identification can be done)

2.91 安全要点（非可燃、易爆粉尘或气体） Safety Essentials (non-combustible, explosive dust or gas)



本除尘器在设计时没有被告知相关的粉尘或者气体有可燃或易爆的特性，因此，不需要做安全相关分析以评估爆炸或火灾风险。



The dust designer the collector is not informed that the relevant dust or gas has combustible or explosive properties, so no safety correlation analysis is required to assess the risk of explosion or fire.

烧结板科技不对火灾或者爆炸事故承担任何责任或质保。
Sintering Board Technology does not assume any responsibility or warranty for fire or explosion accidents.

粉尘的燃烧和/或爆炸取决于多种因素：

The burning and/or explosion of dust depends on a variety of factors:

外部的火源：

External sources of Fire:



- 如果粉尘的物料特性是可燃或者易爆的，那么外部的火源就可能会引起火灾或者爆炸。
- If the material properties of the dust are combustible or explosive, then the external source of fire may cause a fire or explosion.

自燃：

Spontaneous combustion:

- 包含微细金属颗粒和有机物成份的粉尘很容易自燃。有关的加工和生产的例子有：对有油的金属板进行激光切割、焊接、抛丸和火焰喷涂，金属部件或者覆箔金属板的深拉加

工。

- 混合了多种物料的粉尘容易自燃。例如，铝粉和铁粉的铝热反应，反应物的氧化作用将释放大量热能。
- Dust containing fine metal particles and organic components is prone to spontaneous combustion. Examples of processing and production include laser cutting, welding, blasting and flame spraying of oil-coated metal plates, deep drawing of metal parts or foil metal plates.
- Dust mixed with a variety of materials is prone to spontaneous combustion. For example, in the aluminum thermal reaction of aluminum powder and iron powder, the oxidation of the reactants will release a lot of heat energy.

业主或者用户有责任不断检查工况参数、预期用途与设计阶段提交的资料是否有任何变化，也同样有责任在必要时采取任何合适的措施。

It is the responsibility of the owner or user to continuously check for any changes in working conditions, expected use and information submitted during the design phase, as well as to take any appropriate measures where necessary.

请与我们联系，我们非常乐意提供帮助。

Please contact us and we are happy to help.

2.92 安全要点（可燃、易爆粉尘或气体） Safety Essentials (combustible, explosive dust or gas)



您必须获取您的特定粉尘和气体的所有安全相关特性，以评估爆炸和/或火灾风险，并确定保护措施。



You must obtain all safety-related characteristics of your specific dust and gas to assess explosion and/or fire risks and determine protective measures.

业主或者用户有责任不断检查工况参数、预期用途与设计阶段提交的资料是否有任何变化，也同样有责任在必要时采取任何合适的措施。



It is the responsibility of the owner or user to continuously check for any changes in working conditions, expected use and information submitted during the design phase, as well as to take any appropriate measures where necessary.



请与我们联系，我们非常乐意提供帮助。

Please contact us and we are happy to help.

除尘器禁止任何焊接、金属切割或者变形加工，因为这些更改会削弱除尘器的结构强度。

The Precipitator prohibits any welding, metal cutting or deformation processing, as these changes can weaken the structural

strength of the dust collector.

控制或者分析安全系统的电气设备（消防或防爆系统）必须电气上独立：独立的熔断器和独立的供电。

Electrical equipment (fire or explosion-proof systems) that control or analyze the safety system must be electrically independent: a separate fuse and independent power supply.



烧结板科技不对上述疏忽造成的火灾或者爆炸事故承担任何责任或质保。

Sintering Board Technology assumes no responsibility or warranty for fire or explosion accidents caused by such negligence.

粉尘或气体的燃烧和/或爆炸取决于多种因素：

Combustion and/or explosion of dust or gas depends on a variety of factors:

外部的火源：

External sources of fire:

- 如果粉尘或气体的特性是可燃或者易爆的，那么外部的火源就可能会引起火灾或者爆炸。
- If the characteristics of dust or gas are combustible or explosive, external sources of fire may cause fire or explosion.
-

自燃：

Spontaneous combustion:

- 包含微细金属颗粒和有机物成份的粉尘很容易自燃。有关的加工和生产的例子有：对有油的金属板进行激光切割、焊接、抛丸和火焰喷涂，金属部件或者覆箔金属板的深拉加工。
- 混合了多种物料的粉尘容易自燃。例如，铝粉和铁粉的铝热反应，反应物的氧化作用将释放大量热能。
- Dust containing fine metal particles and organic components is prone to spontaneous combustion. Examples of processing and production include laser cutting, welding, blasting and flame spraying of oil-coated metal plates, deep drawing of metal parts or foil metal plates.
- Dust mixed with a variety of materials is prone to spontaneous combustion. For example, the aluminum thermal reaction of aluminum powder and iron powder, the oxidation of the reactants will release a lot of heat energy.

必须事先告知消防部门关于除尘器潜在的火灾风险。必须由消防部门或除尘器负责人制定一个迅捷正确的消防应急预案。该应急预案必须包括灭火剂及其存储，灭火程序等细节。The fire Department must be informed in advance of the potential fire risk of

	<p>the dust collector. A quick and correct fire emergency plan must be developed by the fire department or the person in charge of the dust collector. The emergency plan must include details such as fire extinguishing agent and its storage, extinguishing procedures and so on.</p> <p>工作上与除尘器相关的员工必须接受当火灾发生时如何正确行动的培训，消防演习或培训课程必须每年举行一次。</p> <p>Employees at work who are associated with dust collectors must receive training on how to act correctly when a fire occurs, and fire drills or training courses must be held once a year.</p>
除尘器内部避免有效的点火源 Avoiding Effective Ignition Source in Dust Collector	<p>除尘器的类型已在章节 1 “技术参数”中列出，安全措施的描述也在章节 4.50 中列出。</p> <p>The type of avoid effective ignition source precipitator inside the dust Collector is listed in Chapter 1, "Technical parameters", and the description of the security measures is also listed in chapter 4.50.</p> <p>这些除尘器有一些特殊部件或者结合了特殊措施以防止点燃有害的可燃和/或易爆气氛。</p> <p>These precipitators have a number of special components or combine special measures to prevent the ignition of harmful combustible and/or explosive atmosphere.</p> <p>下列点火源将被考虑到：</p> <p>The following ignition sources will be taken into account:</p> <ul style="list-style-type: none">- 设备自身的点火源- 从外部进入的点火源- 粉尘携带的点火源- The ignition source of the equipment itself- The ignition source from the outside- The source of fire carried by dust <p>如果隔绝点火源还无法担保安全，并且/或者有害物质的最小点燃能量$<3\text{mJ}$，那么必须采取更多的结构性安全措施。</p> <p>If the isolation point source still can not guarantee safety, and/or the minimum ignition energy of harmful substances $<3\text{MJ}$, more structural safety measures must be taken.</p>
结构性防火和防爆 Structural fire prevention and explosion-proof 除尘器周边环境 Surrounding	<p>这些除尘器有特殊的部件或者结合了特殊措施，其设计目的是限制火灾或爆炸的冲击在可承受的水平内。</p> <p>These precipitators have special components or are combined with special measures designed to limit the impact of a fire or explosion within an affordable level.</p> <p>有爆炸危险的场所根据潜在的爆炸性混合物产生的可能性划分为数个区域（章节 1 “技术参数”）。</p>

environment of
the dust collector



Sites with explosive danger around the dust collector are divided into several areas based on the likelihood of potential explosive mixtures (Chapter 1, "Technical parameters").

在潜在爆炸性气氛中使用的电气和非电气设备的分级标准执行的是欧洲导则 94/9/EC(ATEX95)中的设备类别。

The grading standards for electrical and non-electrical equipment used in a potentially explosive atmosphere implement the categories of equipment in the European guideline 94/9/EC (ATEX95).

区域 Region	设备类别 Equipment Categories
区域 0 Region 0	类别 1G category 1G
区域 1 Region 1	类别 2G category 2G
区域 2 Region 2	类别 3G category 3G
区域 20 region 20	类别 1D Category 1D
区域 21 region 21	类别 2D category 2D
区域 22 region 22	类别 3D category 3D

当涉及气体防爆时，字母“G”代表“气体 gas”；
当涉及粉尘防爆时，字母“D”代表“粉尘 dust”。
When it comes to gas explosion-proof, the letter "G" stands for "gaseous gas";
When it comes to dust explosion-proof, the letter "D" stands for "Dust ".

根据不同的设备类别和区域，上述设备的使用如下：
According to different equipment categories and regions, the use of the above equipment is as follows:

区域 Region	设备类别 Equipment Categories
区域 0 Region 0	类别 1G category 1G
区域 1 Region 1	类别 1G（以及 2G） category 1G (and 2G)
区域 2 Region 2	类别 1G（以及 2G 和 3G） category 1G (and 2G and 3G)
区域 20 region 20	类别 1D category 1D
区域 21 region 21	类别 1D（以及 2D）

region 21 区域 22 region 22	category 1D (and 2D) 类别 1D (以及 2D 和 3D) category 1D (and 2D and 3D)
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2.100 质保和责任 Warranty and Liability

除尘器和过滤元件的质保期
Guarantee period of the dust collector and filter element

除尘器和过滤元件质保期的详细信息请查阅销售合同。
Please refer to the Sales contract for the detailed information about guarantee period of the dust collector and filter elements.

质保期内的免责
Exemption during the guarantee period

担保责任不适用于消耗性的部件，例如密封件、入口挡板等。

销售条款
Terms of sale

Warranty does not apply to expendable components such as seals, inlet baffles, etc.

一般地，除非在合同签订时达成了特殊条款，否则将应用制造商的标准条款。

Generally, unless a special clause is reached when signing the contract, the manufacturer's standard terms will be applied.

如果由于下列任何原因造成损坏，则任何责任和质保要求将不被接受：

If damage is caused by any of the following reasons, any liability and warranty requirements will not be accepted:

- 不遵守运行和维护规程
- 除尘器的运行偏离了预期用途
- 在签订合同之前没有告知烧结板科技的化学影响
- 运输或保管的不善
- 结构上的改动
- 装配、启动、运行不善
- 维护不足或不善
- 不专业的修理
- 使用了非原厂的备件
- Fail to comply with operational and maintenance procedures
- The operation of the dust collector deviates from the intended use
- No informing of the chemical impact of the sintering plate technology before the signing of the contract
- Fail to assemble, start, run poorly
- Insufficient or inadequate maintenance
- Unprofessional repairs
- Non-original spare parts were used for unprofessional repairs

3.00 运输、临时储存、组装、安装 Transportation, temporary storage, assembly, installation

3.10 机械系统 Mechanical systems

3.10.10 除尘器的交货、内部转移和中间储存 Delivery, internal transfer and intermediate storage of the dust collectors



卸货和内部转运的任务应仅由训练有素的人员来完成。
Unloading and internal transshipment shall be carried out only by trained personnel.



检查重心位置、重量和尺寸（参见随机文件和章节 7 “设备图纸”）。

Check the center of gravity position, weight, and size (see Random Files and Chapter 7, "Device Drawings").

使用叉车，并且要有：

Use forklifts, and should have:

- 足够的载重能力
- 足够长的货叉
- 足够的举升高度
- Enough load capacity long
- Enough for the fork
- Enough lift height

使用起重机，并且要有：

Use the crane, and should have:

- 足够的载重能力
- 模块化机型的专用吊具
- 足够的举升高度
- Sufficient load capacity
- Modular model of the special hoist
- Sufficient lifting height

检查所用到的地面、楼板、卸货桥和卸货斜板的载重能力是否足够。

Check whether the load capacity of ground, floor, unloading bridge and unloading slant plate is sufficient.

所用起重设备要有适当的装载能力以及合适的回转和操作设备。

The lifting equipment used should have the appropriate loading capacity, suitable rotary and operating equipment.

装有过滤元件的箱子不得承受上部的任何荷载——不能堆叠。

A box fitted with a filter element shall not withstand any load on the upper part-it cannot be stacked.

检查运输损坏 Inspection of transport damage

当除尘器运抵的时候马上检查运输损坏。如果你发现了任何运输损坏，在发货单上作出说明，这样，货运公司的人才会知道。我们同样推荐您将损坏处拍照保存。无论是货运公司还是制造商，都不会对之后才发现的损坏承担责任。Check for transportation damage when the dust collector arrives, check for transport damage immediately. If you find any transport damage, make a statement on the invoice so that the shipping company's talent will know. We also recommend that you take a photo to save the damage. Neither the shipping company nor the

	manufacturer will be liable for damage that is discovered later.
包装材料的处置 Disposal of Packaging Materials	<p>除尘器用塑料薄膜包裹后放置于货盘上。无论是可重复使用的还是可抛弃的货盘，都是用未经处理的木头制成的。</p> <p>The dust collector is wrapped in plastic film and placed on the pallet. Whether it is reusable or discarded pallets, it is made out of untreated wood.</p>
储存 Storage	<p>安装了过滤元件的除尘器： A dust collector with a filter element:</p> <p>如果您打算储存除尘器的时间超过 3 个月，我们推荐您与烧结板科技联系以商讨对您的除尘器适用的措施。</p> <p>If you intend to store the dust collector for more than 3 months, we recommend that you contact Sintered Plate Technology to discuss the appropriate measures for your dust collector.</p>
室内 Indoors	<p>除尘器一般都能够储存在室内的一个干燥地点较长时间而不会有什么问题。</p> <p>Dust collectors can generally be stored in a dry place indoors for a long time without any problems.</p>
户外 Outdoors	<p>除尘器用塑料薄膜包裹以方便运输，并能提供良好的天气防护作用。在您储存除尘器到户外之前以及储存期间，请检查塑料薄膜是否有损坏，以防除尘器不会遭受雨雪天气的水的侵蚀。重要：除尘器上有些在安装前未被封闭的开口，如果薄膜损坏的话，水就会通过这些开孔进入并造成损坏。</p> <p>The dust collector is wrapped in plastic film for easy transport and provides good protection. Before you store the dust collector outdoors and during storage, check whether the plastic film is damaged so as to prevent the dust collector from being eroded by rain and snow. Important: There are some openings on the dust collector that are not closed before installation, and if the film is damaged, the water will enter through these openings and cause damage.</p>

3.10.20 过滤元件在目的地的交货、处理和临时储存 Filtration elements at the destination, processing and temporary storage



目的地的卸货和处理应仅托付给有资质的人员。

The unloading and disposal at the destination shall be entrusted only to qualified personnel.

必须遵守相关的规定。

The relevant provisions must be complied with.



注意重心位置、重量和相关尺寸（参见随机文件和货运文件）。

Note the center of gravity position, weight, and related dimensions (see random files and shipping files).

单机设备应使用叉车，并且要有：

Single-machine equipment should use forklifts, and to have:

- 足够的载重能力
- 足够长的货叉
- 足够的举升高度
- Enough load capacity
- The fork that is long enough
- Enough lift height

模块化机型应使用起重机，并且要有：

Modular model should use crane, and should have:

- 足够的载重能力
- 模块化机型的专用吊具
- 足够的举升高度
- Sufficient load capacity
- Modular model of the special hoist
- Sufficient lifting height

检查所用到的地面、楼板、卸货桥和卸货斜板的载重能力是否足够。

Check whether the ground, floor, unloading bridge and unloading slant plate load capacity is sufficient.

过滤元件可能会通过一个坚固的箱子装运。无论如何，这个箱子不适用于室外储存。

Filtration elements may be shipped through a sturdy box. In any case, this box is not suitable for outdoor storage.

装有过滤元件的箱子不得承受上部的任何荷载——不能堆叠。

A box fitted with a filter element shall not withstand any load on the upper part-it cannot be stacked.

过滤元件的储存
Storage of filter
elements

包裹好装入箱子或者用防尘塑料膜保护后，过滤元件可以储存在干燥的室内任意时间。

After packed into a box or protected with a dust-proof plastic film, the filter element can be stored in a dry room at any time.

不要把包裹好的过滤元件储存在室外，以防紫外线辐射和溶剂的侵蚀。

Do not store well-wrapped filter elements outdoors to prevent UV radiation and solvent erosion.

正确的储存
Correct storage

水平放置
头尾交错地堆放

相互之间有衬垫（纸板条）

Horizontal placement

Stacked head and tail

Padded with each other (cardboard strips)



错误的储存

Incorrect storage

头尾同向地堆放

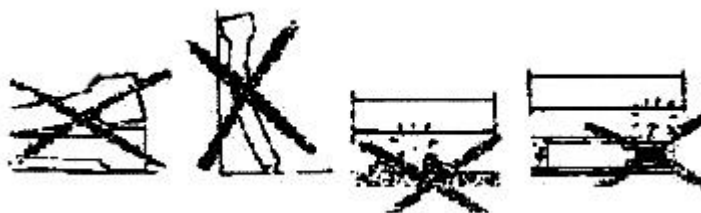
斜靠墙壁

放在突起的物体上——螺栓、钉子等

Stack head and tail in the same direction

Leaning against the wall

Putting on protruding objects - bolts, nails, etc.



3.10.30 除尘器的安装 Installation of the dust collector



注意重心位置、重量和相关尺寸（参见随机文件和货运文件，以及章节 7 “设备图纸”）。

Attention should be paid to the position of the center of gravity, weight and relative dimensions (see random documents and freight documents, as well as chapter 7, "Equipment drawings").

当起吊除尘器的时候，必须遵守相关的规定。

When lifting a dust collector, the relevant regulations must be observed.

禁止在悬空的货物下方站立或走动。

It is forbidden to stand or walk under suspended goods.

指定一个人，仅由他负责用统一的指挥信号与起重机操作人员联络。

A designated person is responsible for communicating with crane operators only with a unified command signal.

与其他在您附近工作的小组人员协调您的工作，以免使其他人暴露在危险之中。

Coordinate your work with other team members working near you to avoid exposing others to danger.

协调意味着安全！

Coordination means security!

安装点

与章节 3.10.40 “工厂位置”一致。

Installation point

Consistent with Chapter 3.10.40, "Factory Location".

3.10.31 除尘器的安装——补充：单体设备 Installation of Dust Collector--supplementary: monomer equipment

就位

除尘器到现场的时候已经尽最大程度地装配好了。

Emplacement

The dust collector was assembled to the maximum extent possible when it arrived at the scene.



- 暂不要割断包装带
(我们推荐将货盘和除尘器一起起吊，以防滑动)
- 如果除尘器的立柱脚之间有横梁，暂不要拆除
- 仅将塑料膜除去
- 将合适的吊具固定于标明的吊点上
(每个吊点的承载能力 10KN=1t)
- 走到安全区域，起吊除尘器
- 现在可割断包装带，拆除立柱脚之间的横梁
- 如果除尘器分成两个部分发货，只有本体是需要被装到灰斗上的，并且和螺栓紧固。
- 现在将密封条胶到下半部分上
- 然后将本体放到下半部分上并且用螺栓连接这两部分
- 将除尘器安装到地面的基础上
- do not cut the packing belt (we recommend lifting the pallets and dust collectors together to prevent sliding)
- if there is a beam between the column feet of the dust collector, do not remove the plastic film
- only to remove the appropriate hoist fixed to the marked lifting point (each lifting point of the bearing capacity 10kn=1t)
- walk to the safe area, lift the dust collector
- now you can cut the packaging belt , remove the beams between the feet of the column
- if the Dust collector is divided into two parts for shipment, only the ontology needs to be mounted on the ash bucket, and the bolts are fastened.
- Now place the sealant on the lower part
- then place the body on the lower part and bolt the two parts
- mount the dust collector to the ground
(请参见章节 3.10.40 “工厂位置”中的说明)

接着就是机械、电气和气压管路的安装。

(see the Instructions in section 3.10.40 "Factory location")

the following part is the installation of mechanical, electrical and pneumatic piping.

3.10.40 工厂位置 Factory location

户外安装



基本上而言，除尘器是适用于户外的。但是，也许有必要采取一些户外使用的特殊措施以适应特殊的地理条件。可能有必要，例如将整个除尘器做保温层，或者仅对清灰系统的阀门进行加热。

Basically, the precipitator is suitable for outdoor purposes. However, it may be necessary to take some special measures for outdoor use to accommodate special geographical conditions. It may be necessary, for example, to make the entire dust collector a insulation layer, or only to heat the valves of the ash cleaning system.

场地要求

当为您的除尘器选择安装位置时，请预留：

Site requirements

When selecting the installation location for your dust collector, please reserve

维护和修理

– 额外的维护和修理空间

Maintenance and repair

– Additional maintenance and repair space

拆除过滤元件 Remove filter elements

– 为了安装和拆除过滤元件，请确保人孔门前面大概 1m（立式机型）或 1.5m（卧式机型）的自由空间

– In order to install and remove filter elements, please ensure that the free space in front of the manhole door is about 1m (vertical type) or 1.5m (horizontal type).

隔声罩 Sound insulation hood

– 为了举起隔声罩，您将需要除尘器上方的至少等于隔声罩高度的净空距离。

– In order to lift the hood, you will need a clearance distance above the dust collector at least equal to the height of the hood.

–

基础

Basics

设计

Design

– 水平地面安装，C25 混凝土地面，250mm 厚，GB 50010

– Horizontal Ground Installation, C25 Concrete Ground, 250mm Thickness, GB 50010

附注

Note appended

装有周期性振动设备（振打/敲击设备等）的除尘器应该放到橡胶垫上

	Dust collectors equipped with periodic vibration equipment (beating/knocking equipment, etc.) should be placed on rubber pads.
爆炸泄压 Explosion pressure relief	<p>基础的锚栓点的设计应能承受爆炸压力释放时产生的反作用力。</p> <p>The anchor bolt point of the foundation should be designed to be able to withstand the reaction force produced when the explosive pressure is released.</p>
位置固定 Fixed position	<p>除尘器底脚板上有用来固定地脚螺栓的孔（地脚螺栓用户自理）。</p> <p>There are holes in the base plate of the dust collector to fix the anchor bolts (the users take care of the anchor bolts).</p>
检修平台 Maintenance platform	<p>检修平台的设计应能承受所有静载和活载。在设计准备阶段，应留有检修时可能会增加的重力裕量，并在特定高度提供符合检修平台安全要求的设施，例如扶手的高度。除尘器必须牢固地与检修平台相连接。</p> <p>The maintenance platform shall be designed to withstand all static and live loads. In the design preparation stage, there should be a possible increase in the weight margin during maintenance, and at a specific height to provide facilities that meet the safety requirements of the maintenance platform, such as the height of the armrest. The dust collector must be firmly connected to the overhaul platform.</p>
特殊除尘器说明 Description of special dust collector	<p>对于将要直接装到仓顶或者库顶的场合，用户有责任准备必要的应力分析。安装法兰必须水平，并允许除尘器在无应力的情况下安装。安装用的螺栓、螺母和密封垫由用户自理。</p> <p>It is the user's responsibility to prepare the necessary stress analysis when loading directly to the top of the warehouse or warehouse is needed. Installation flange must be horizontal, and dust collector shall be allowed to be installed without stress. Bolts, nuts and gaskets for installation shall be taken care of by users themselves.</p>
仓顶除尘器 Storehouse top dust collector	<p>Before you install the dust collector to any explosion risk area, check that the electrical equipment of the dust collector is certified to be used in the explosion area.</p>
凿岩机除尘器 Dust collector of rock drill	<p>当除尘器回转的时候，请确保即使在最恶劣的工况下，凿岩机的稳定性也不会受到影响。凿岩机的结构必须足够坚固以支撑除尘器的重量。</p> <p>When the dust collector rotates, make sure that the stability of</p>

移动式除尘器
Mobile dust
collector

the rock drill will not be affected even in the worst working conditions. The structure of the rock drill must be strong enough to support the weight of the dust collector.

移动式除尘器应放置于水平地面，并且/或者要防止翻滚。附件必须要有可用的空压机。重要：确信已经发布了正确的运行规程或者安排了人员的培训，不能把除尘器移动到有爆炸风险的区域运行，除非这个除尘器经认证是适用于这样的应用。

Mobile dust collectors should be placed on the horizontal ground and/or roll-over prevented. Accessories must have available air compressors. Important: Make sure that the correct operating rules have been issued or personnel training has been arranged, and the dust collector can not be moved to an area with explosion risk for operation, unless the dust collector is certified to be suitable for such applications.

爆炸区域安装
Installation of
explosion zone



配有泄压装置
的除尘器
Dust
catcher equipped
with pressure

relief device



在您安装除尘器到任何有爆炸风险的区域之前，检查除尘器的电气设备是否经认证可以用在所述的爆炸区域。

Before you install the dust collector to any explosion risk area, check that the electrical equipment of the dust collector is certified to be used in the explosion area.

重要：当选择除尘器的安装位置时，确信爆炸泄压时由于压力波和/或火焰波、或者飞出的部件不会对人员造成危险。

Important: When selecting the installation location of the dust collector, make sure that the explosion pressure relief due to pressure wave and/or flame wave, or flying parts will not cause danger to personnel.

如果配置了无焰压力释放设备，同样要在所有方向上保留大约 3m 的安全区域。室内安装也是可以的。

If equipped with flameless pressure release equipment, the safety area of about 3M should also be reserved in all directions. Indoor installation is also possible.

3.10.50 管道连接 Pipe connection

有必要为除尘器的初运行阶段（最初的 100 小时运行）准备一个节流阀（调风阀）以控制处理气量。在预涂层模式下，则无须流量调节！



It is necessary to prepare a throttle valve (air regulating valve) for the initial operation stage of the dust collector (the initial 100-hour operation) to control the handling gas volume. In the pre-coating mode, there is no need for flow regulation!

仓顶式除尘器（风机电机非变频）可能在设备内部已装有调风阀，可以从本体的检查孔中或者外露的手柄调节开度并加以

固定。

Warehouse Top Type dust collector (fan motor non-frequency conversion) may have installed air conditioning valve inside the equipment, can be from the body of the inspection hole or exposed handle to adjust the opening and fixed.

“避免有效点火源”的安全措施:

Safety measures for "avoiding effective ignition sources":

所有的管段必须相互导电并导通到除尘器。

all pipe segments must conduct electricity to each other and lead to the dust collector.

现场固定
Fixation

连接到除尘器的管道必须是无应力的，以防止任何管道安装过程引起的对除尘器的作用力（包括重力）。

The pipe connected to the dust collector must be stress-free to prevent the force (including gravity) caused by any piping installation process on the dust collector.

设计
Design

管道系统应稳固，并确保合适的流动条件。

The piping system should be robust and ensure suitable flow conditions.

尘气侧管道
Dust Gas side
pipeline

尘气管道系统，例如输送粉尘的管道，应该在设计上防止粉尘的沉积（在管道的较低部位沉淀）。万一是粘性的粉尘，那么就有必要定期清理管道四周壁上的沉积物。

Dust piping systems, such as those that transport dust, should be designed to prevent dust deposition (precipitation in the lower parts of the pipeline). In the event of sticky dust, it is necessary to regularly clean up the sediment on the wall around the pipe.

集气吸尘罩
Gas-Collecting
vacuum hood

能优化捕集效果的、规格正确的集气吸尘罩是管道系统的一个重要部分。现有工艺中产生的气流运动应加以利用，或者甚至通过空气射流或者气帘加以辅助，以增强集气吸尘罩的有效性。是否能满足有关污染物的最大排放浓度限值或者其它限值，很大程度上取决于集气吸尘罩的设计，或者通俗地说，捕集污染物的方式。

It is an important part of the piping system to optimize the capture effect and correct the specification of the set gas suction hood. The airflow movement generated in the existing process should be utilized, or even assisted by air jets or air curtains, in order to enhance the effectiveness of the gas collector suction hood. Whether the maximum emission concentration limit or other limit value of the pollutant concerned can be satisfied depends to a large extent on the design of the gas-collecting suction hood, or, in popular terms, the way in which the contaminants are captured.

净气侧管道

净气侧管道的设计和连接应保证在对风机进行维修时可以很

NET Gas side
piping

容易地将隔声罩拿开。在管道的出口处应装有起保护作用的格栅或者百叶。

The design and connection of the net gas side pipe shall ensure that the sound shield can be easily removed when the fan is repaired. A protective grille or louver shall be installed at the outlet of the pipe.

空气从管道口排放的时候会发出噪声，也许可以通过增加消音器来控制。

Air emits noise when it is discharged from the pipe mouth, perhaps by increasing the silencer.

清理
Cleaning

如果在某些部位粘附了粉尘或者粘得很牢，有必要通过定期检查来发现并清除管道四周壁上的沉积。

If dust is glued to or glued to certain parts, it is necessary to detect and remove deposits on the wall around the pipe through regular inspection.

3.20 气压系统 Pneumatic system

3.20.10 清洁过滤元件用的压缩空气供应 Compressed air supply for cleaning filter elements



用于清洁过滤元件的压缩空气或者其它合适的气体（例如氮气 N_2 ）必须在气量和压力上保证充足（供气系统）。

Compressed air used to clean filtration elements or other suitable gases (such as nitrogen N_2) must be sufficient in volume and pressure (gas supply system).

气体要求

请参见章节 1 “技术参数” 以查询气量要求

Gas requirements

See Chapter 1, "Technical parameters" for gas requirements

压力（供气）

请参见章节 1 “技术参数” 以查询要求的最小压力

Pressure (gas supply)

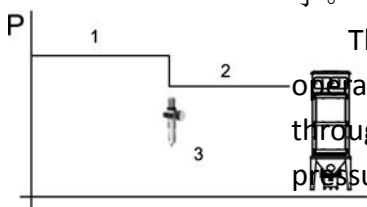
See Chapter 1, "Technical parameters" for the minimum pressure required to query

压力（清灰）

供气系统压力必须通过压力控制阀（过滤减压阀或减压阀）调整到脉冲清灰系统所需的运行压力（请参见章节 1 “技术参数”）。烧结板科技提供的压力控制阀已经在出厂前预装了。

Pressure (ash removal)

The pressure of the air supply system must be adjusted to the operating pressure required by the pulse ash cleaning system through a pressure control valve (filter pressure relief valve or pressure relief valve) (see Chapter 1 "Technical parameters"). Pressure control valves provided by Sintered Plate Technology have been pre-installed before they leave the factory.




The pressure of the air supply system must be adjusted to the operating pressure required by the pulse ash cleaning system through a pressure control valve (filter pressure relief valve or pressure relief valve) (see Chapter 1 "Technical parameters"). Pressure control valves provided by Sintered Plate Technology have been pre-installed before they leave the factory.

1 供气系统压力

2 脉冲清灰系统（运行）压力

	<p>3 压力控制阀（过滤减压阀）</p> <p>1. Pressure of air supply system</p> <p>2 Pulse Ash Cleaning System (Operation) Pressure</p> <p>3 Pressure Control Valve (Filter Pressure Relief Valve)</p>
安全阀监控 Safety valve monitoring	<p>不得调整或拆除安全阀</p> <p>Do not adjust or remove safety valves</p> <p>我们推荐分气箱内的压力通过压力探头的方式检测。未及时发现的压力失控情况或者特别低的压力将引起过滤元件损坏。</p> <p>We recommend that the pressure in the gas tank be detected by means of a pressure probe. Failure to detect uncontrollable pressure or particularly low pressure will cause damage to the filter element.</p> <p>请参见章节 1 “技术参数” 以查询容许误差。</p> <p>See Chapter 1, "Technical parameters", to query for allowable errors.</p>
分气箱 Air separation box Gas supply pipeline	<p>分气箱符合 JB/T10191 《脉冲喷吹类袋式除尘器用分气箱》标准，在出厂前都经过气密性试验和耐压试验，除尘器安装后能够直接使用。</p> <p>The air separator meets the standard of JB/T10191 "air separator for pulse injection bag filter". It has been tested for air tightness and pressure resistance before leaving the factory, and can be used directly after installation.</p>
关断阀 Shut off valve	<p>供气管路上必须安装关断阀，这样才能对除尘器进行维修。</p> <p>Shut-off valves must be installed on the gas supply pipeline in order to maintain the dust collector.</p>
供气管道 Gas supply pipeline	<p>我们推荐安装永久性的压缩空气管道。压缩空气管道的规格和敷设必须符合压缩空气工程技术要求（最小的管径 1/2"）。</p> <p>We recommend the installation of permanent compressed air pipes. The specifications and laying of compressed air pipelines must meet the technical requirements of compressed air engineering (minimum diameter 1/2").</p>
压缩空气品质 Compressed air quality	<p>如果使用压缩空气来清灰，那必须采用干净的、干燥的和无油的压缩空气。如有必要，除尘器前必须安装油和/或水分离器。</p> <p>If compressed air is used for ash removal, clean, dry and oil-free compressed air must be used. If necessary, oil and/or water separators must be installed before the dust collector.</p>

	<p>根据 ISO8573-1，压缩空气品质要求如下：</p> <p>According to ISO8573-1, compressed air quality requirements are as follows:</p> <ul style="list-style-type: none">– 颗粒尺寸 ≤5um– 颗粒浓度 ≤5mg/m³– 压力露点 +3℃– 残油含量 ≤5mg/m³– Particle size < 5um– Particle concentration < 5mg/m3– Pressure dew point + 3 C– Residual oil content less than 5 mg/m3
户外安装 Outdoor installation	<p>注意：脉冲清灰系统的运行会受到结冰的威胁。我们建议使用阀门加热系统。也许有必要额外配备压缩空气干燥设备以防止冷凝物的形成。</p> <p>Note: The operation of pulse ash cleaning system will be threatened by ice. We recommend the use of valve heating system. It may be necessary to equip additional compressed air drying equipment to prevent the formation of condensate.</p> <p>如果有气动挡板门，则需要为其安装额外的压缩空气管路。</p> <p>If there are pneumatic baffle doors, additional compressed air pipes need to be installed.</p>
3.30	电气系统 Electrical system
3.30.10	电气/电子部件的连接 Connection of Electrical/Electronic components
	<div></div> <p>所有的电气工作应仅由专业电气人员来完成。</p> <p>Only professional electrical personnel should do all electrical work.</p>
带控制箱的除尘器 Dust collector with control box	<p>除尘器的控制系统不控制其它机器。</p> <p>The control system of the Precipitator dust collector with control box does not control other machines.</p> <p>请再次拧紧电控箱上的所有紧固件。</p> <p>Tighten all fasteners on the electrical control box again.</p>
技术参数 Technical parameters	<p>关于主电压和电机主频率的详细信息，请参考电路图和/或铭牌。所选用的供电主电缆截面积同样应匹配额定电流值。</p> <p>For more information about the main voltage and the main frequency of the motor, please refer to the circuit diagram and/or nameplate. The selected power supply main cable cross-sectional area should also match the rated current value.</p>
保护设备 Protective device	<p>在设备试运行之前，绝对有必要提供防止电机过热的保护设备，或者将现有的保护设备连接上。</p>

It is absolutely necessary to provide a protective device to prevent the motor from overheating before the equipment is commissioning, or to connect the existing protective equipment.

相线端子连接

Phase Line

Terminal

Connection

请注意正确的相线端子和特定的旋转方向。检查电机以确定正确的旋转方向！

Please pay attention to the correct phase line terminal and the specific rotation direction. Check the motor to determine the correct direction of rotation!

附加文档

Additional

document

– 电路图，章节 8 “电路图/端子图”

– Circuit diagram, Chapter 8 "Circuit diagram/Terminal Diagram"

4.00 设计与功能 Design and Function

4.10 除尘器描述 Dust catcher description

除尘器可分为上部、下部和本体。在章节 7 的除尘器图纸中，您将找到您的除尘器的图纸，上面有它不同部件的名称。

The dust collector can be divided into upper part, lower part and main body. In the dust collector drawings in Chapter 7, you will find the drawings of your dust collector with the names of its different components.

4.10.102 有净气接口的本体箱盖上部 The upper part of the body box cover with a clean air interface

上部 Upper part 除尘器的上部包括本体箱盖，并且与除尘器的净气室相连。有一个净气出口作为与净气管道的接口。如果配有抽气风机，也可能将风机直接布置到箱盖上；并且根据噪音控制要求，配备适当的隔声和消音装置。

模块化机型有多个净气出口，对应多个模块。

净气汇流管 Purifier manifold 模块化机型每个模块的净气出口需要通过净气汇流管，汇集到净气母管，然后经风机排放，或者进入下一道工艺环节。



无论是尘气管道连接还是净气管道连接，管道的位移不允许传递给除尘器，否则将导致除尘器结构上的损坏。

The upper part of the dust collector includes a body box cover and is connected with the air-purifying chamber of the dust collector. There is a clean air outlet as an interface with the clean air pipeline. If equipped with exhaust fan, the fan may also be placed directly on the cover of the box, and according to the requirements of noise control, equipped with appropriate sound insulation and silencing devices.

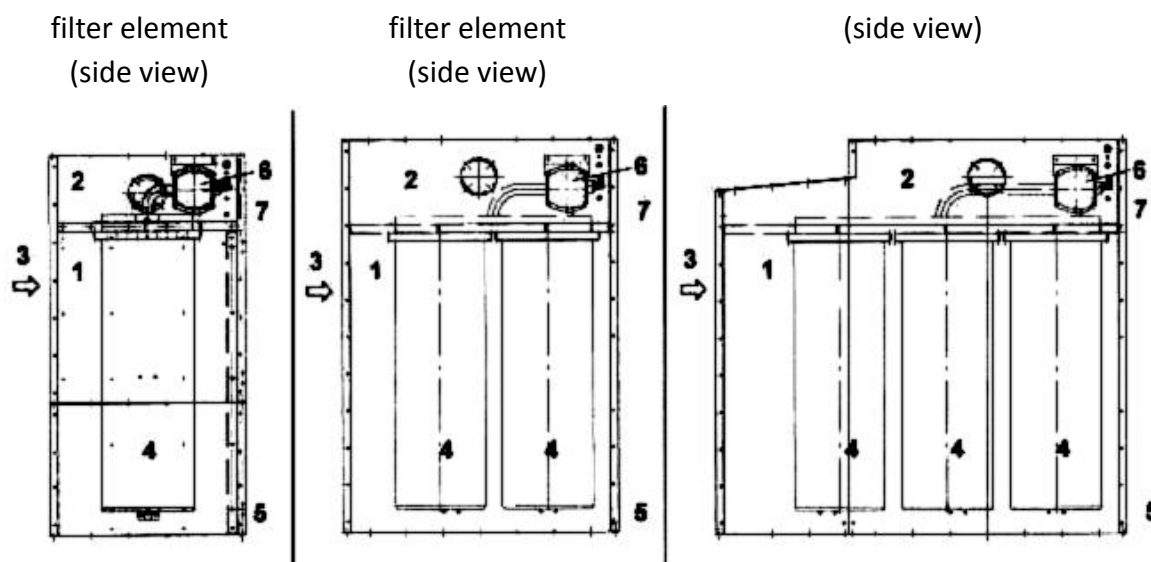
The modular model has multiple outlets for air purification and corresponds to multiple modules.

The net gas outlet of each module of modular machine needs to be assembled into the net gas main pipe through the net gas confluence pipe, and then discharged by the fan, or enter the next process link.

The displacement of the pipeline is not allowed to be transferred to the dust collector whether it is connected with the dust pipeline or the clean pipeline, otherwise the structure of the dust collector will be damaged.

4.10.220 DF 系列单机本体（立式） DF Series Single Machine Body (Vertical)

单排过滤元件 （侧视） Single row	双排过滤元件 （侧视） Dual-row	三排过滤元件 （侧视） Three-row filter element
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本体 Main part

本体包括一个结实的钢结构。一块水平“开槽板”将本体分为上下两个腔室：

- 底部是尘气室（1）
- 顶部是净气室（2）

尘气室（1）

Dust chamber (1)

含尘气体（3）进入尘气室，并被一个入口挡板均布于所有的过滤元件（4）之间。如果为仓顶式机型，则含尘气体（3）将从尘气室底部进入，并且不需要入口挡板。

取决于设备的型号，单排、双排或三排的过滤元件能够前后安装在本体内。

气流从外向内流经过滤内件（4），粉尘被滞留在有 PTFE 涂层的过滤元件表面（4）上。

本体的前面有单门或双门的人孔门（5）。

净气室（2）

Cleaning chamber (2)

过滤元件（4）的清灰单元（6）位于净气室内。清灰单元包括一个压缩空气分气箱和快开式电磁阀，以及喷吹管系统。当高温工况时分气箱和电磁阀将布置到除尘器外部。

除尘器的清灰是通过脉冲清灰的方式。短暂地打开快开式电磁阀，能引起从分气箱到过滤元件内部的一个压缩空气喷吹。这个压缩空气脉冲可以清除过滤元件表面粘附的粉尘。相关的参数有：清灰脉冲的时间和间隔。快开式电磁阀直接安装在压缩空气分气箱上。内置式清灰系统的净气室在前面有 2~3 个检修门（7）。

The body consists of a strong steel structure. A horizontal slotted plate divides the body into two chambers:

- The bottom is the dust chamber (1)
- The top is the purge chamber (2)

Dusty gas (3) enters the dust chamber and is distributed between all filter elements (4) by an inlet baffle. If it is a warehouse top type, the dust-containing gas (3) will enter from the bottom of

the dust chamber without the need for an inlet baffle.

Depending on the type of equipment, single-row, double-row or three-row filter elements can be installed in the body before and after.

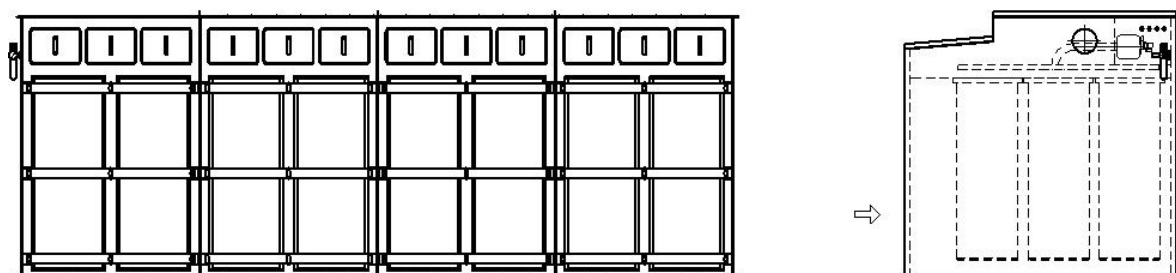
The airflow flows from outside to inside through the filter internals (4), and the dust is trapped on the surface (4) of the filter elements coated with PTFE.

The front of the body is a manhole door (5) with single or double doors.

The ash-cleaning unit (6) of the filter element (4) is located in the air purification chamber. The ash-cleaning unit includes a compressed air separator, a fast-opening solenoid valve and a nozzle system. The air box and solenoid valve will be arranged outside the dust collector at high temperature.

The dust removal of the dust collector is by means of pulse cleaning. Shortly opening the fast-opening solenoid valve can cause a compressed air injection from the air separator to the inside of the filter element. This compressed air pulse can remove the dust adhering to the surface of the filter element. Relevant parameters are: time and interval of ash removal pulse. The fast-opening solenoid valve is directly installed on the compressed air separator. The air cleaner of the built-in ash cleaning system has 2 to 3 overhaul doors (7) in front.

4.10.221 DS 系列模块化本体（立式） DS Series Modular Ontology (Vertical)



本体 Main part

模块化本体采用多个单元模块组合的形式，以达到更大的处理能力；单元模块的结构形式同单机本体。

尘气分配管

Dust distributor

尘气的母管需要通过分配管，将尘气均匀地分布到每个模块的尘气入口。尘气分配管合理的结构形式能够保证每个模块的处理风量基本一致，并防止粉尘在局部位置沉降（必要时应设置检查和清理口）。

当用于仓顶的过滤除尘时，不需要尘气分配管。



无论是尘气管道连接还是净气管道连接，管道的位移不允许传递给除尘器，否则将导致除尘器结构上的损坏。

Modular ontology uses the combination of multiple unit modules to

achieve greater processing capacity; the structure of unit modules is the same as that of single-machine ontology.

The main pipe of the dust gas needs to distribute the dust evenly to the dust inlet of each module through the distributor pipe. Reasonable structure of dust distribution pipe can ensure that the air handling capacity of each module is basically the same, and prevent dust from settling in the local position (checking and cleaning ports should be set if necessary).

Dust distribution pipes are not needed when filtering and dust removals are used on the top of the warehouse.

The displacement of the pipeline is not allowed to be transferred to the dust collector whether it is connected with the dust pipeline or the clean pipeline, otherwise the structure of the dust collector will be damaged.

4.10.301 仓顶式本体的下部 The lower part of the warehouse top body

下部 Lower part 仓顶式除尘器没有灰斗，因此在除尘器的型号中末尾只有 1 个字母代码（只表示上部的型式）。

为了便于用户的接口设计和现场安装，通常我们会在本体下部提供一个安装底座，可直接与用户的仓顶接口焊接（请参见章节 7 “设备和备件的图纸、清单” 中的除尘器安装图）。尘气从这个接口中进入除尘器，捕集下来的粉尘从这个接口排出到下部的粉仓。

There is no hopper in the top dust collector, so there is only one letter code at the end of the dust collector model (only the upper type).

In order to facilitate user interface design and site installation, we usually provide an installation base at the bottom of the body, which can be welded directly with the user's warehouse top interface (see the dust collector installation diagram in Chapter 7 "Drawings and Lists of Equipment and Spare Parts". Dust gas enters the dust collector from this interface, and the collected dust is discharged from this interface to the lower silo.

4.10.302 灰斗式本体的下部 The lower part of the gray bucket body

下部 Lower part 本体下部为有一定斜度的灰斗，用于收集过滤元件表面清理下来的粉尘，并通过底部的开口排出粉尘。排灰口附近设有检查孔，另外，也可根据需要设置各类辅助排灰的装置。

根据不同的使用要求，灰斗出口可配置各种机械或者气力输送粉尘的设备。小型除尘器通常配置各类插板阀、翻板锁风阀或者旋转式卸灰阀门（旋转给料机）等。

除尘器型号末尾两位字母中的后一位表示了与用户接口相关的排灰形式。The lower part of the body is a ash bucket with a certain slope, which is used

to collect dust from the surface of the filter element and discharge the dust through the opening at the bottom. Inspection holes are arranged near the ash discharge outlet. In addition, various auxiliary ash removal devices can also be set up as required.

According to different requirements, the ash hopper outlet can be equipped with various machinery or pneumatic dust conveying equipment. Small dust collectors are usually equipped with various types of plug valves, turnover lock valves or rotary ash discharge valves (rotary feeders), etc.

The latter of the two letters at the end of the dust collector model represents the form of ash removal related to the user interface.

料位监测
Material level
monitoring
附加文档
Additional
document

根据不同的使用要求，灰斗上可能需设置料位检测仪表，以提供高、低料位监测和报警功能。这些仪表包括采用各种工作原理的单料位检测开关或者连续料位变送器。

- 设备资料，章节 7 “设备和备件的图纸、清单”

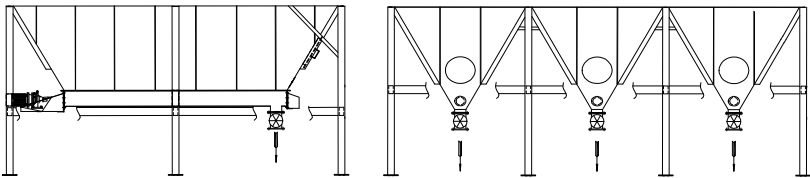
- 说明书，章节 10 “OEM 部件的原始说明书”

According to different application requirements, it may be necessary to install level measuring instruments on the ash hopper to provide high and low level monitoring and alarm functions. These instruments include single level switch or continuous level transmitter with various working principles.

- Equipment Information, Chapter 7 "Drawings and Lists of Equipment and Spare Parts"

- Instructions, Chapter 10 "Original Instructions for OEM Components"

4.10.320 模块化机型下部 Lower part of modular model



灰斗 Ash
hopper
排灰设备
Ash
disposal
equipme
nt
料位监测
Material
level
monitori

模块化机型的灰斗通常会采用船形灰斗或多灰斗的形式以降低除尘器的整体高度。灰斗上根据需要设置了相应的人孔门和检查孔。

根据不同的使用要求，灰斗下可配置各种水平或者向下的机械或者气力输灰设备。比如常见的水平方向输送的设备有螺旋输送机、空气流化斜槽、埋刮板输送机和链式输送机等；向下输送的设备有各类插板阀、翻板阀或者旋转式卸灰阀门。

根据不同的使用要求，灰斗上可能需设置料位检测仪表，以提供高、低料位监测和报警功能。这些仪表包括采用各种工作原理的单料位检测开关或者连续料位变送器。

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钢结构支撑 Steel Structural Support 模块化机型的设备自重以及存灰的重量、风载、雪载等总荷载较大，通常需要采用重型的钢结构支撑。用于有爆炸性危险场合的除尘器，其钢结构支撑还需要考虑能够抵抗泄爆时的反作用力。

用于检修的扶梯、平台也已经考虑在内，包括检修时可能增加的静载和动载、以及必要的安全防护措施。

钢结构支撑的基础设计必须考虑上述各种条件。

Dust hoppers of modular machines usually adopt ship-shaped or multi-hoppers to reduce the overall height of dust collectors. Corresponding manhole doors and inspection holes are arranged on the ash hopper according to the need.

According to different requirements, various horizontal or downward mechanical or pneumatic ash conveying equipment can be installed under the ash hopper. For example, the common horizontal conveying equipment includes screw conveyor, air fluidization chute, buried scraper conveyor and chain conveyor; downward conveying equipment includes all kinds of plug valves, flip valves or rotary ash unloading valves.

According to different application requirements, it may be necessary to install level measuring instruments on the ash hopper to provide high and low level monitoring and alarm functions. These instruments include single level switch or continuous level transmitter with various working principles.

The weight of equipment and the weight of ash storage, wind load and snow load of modular aircraft are larger, so heavy steel structure support is usually needed. The steel structure support of dust collector used in explosive dangerous occasion also needs to consider the reaction force, which can resist the explosion.

The escalators and platforms used for overhaul have also been taken into account, including static and dynamic loads that may be added during overhaul, as well as necessary safety precautions.

The above conditions must be taken into account in the foundation design of steel structure support.

附加文档 Additional document - 设备资料，章节 7 “设备和备件的图纸、清单”

Additional document

-

说明书，章节 10 “OEM 部件的原始说明书”

- Equipment Information, Chapter 7 "Drawings and Lists of Equipment and Spare Parts"

- Instructions, Chapter 10 "Original Instructions for OEM Components"

4.20.10 烧结板过滤元件 Sintered plate filter element

性能卓越的烧结板过滤元件可以制成各种规格和配置。

过滤面积 Filter area

过滤元件的锯齿形能提供非常大的有效过滤面积和紧凑的外形尺寸。与传统的布袋和扁袋相比，烧结板过滤元件的

有效过滤面积可以达到 3 倍以上。

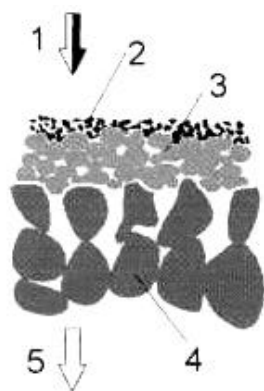
Sintered plate filter elements with excellent performance can be made into various specifications and configurations.

The zigzag shape of the filter element provides a very large effective filtering area and a compact size. Compared with the traditional cloth bag and flat bag, the effective filtering area of sintered plate filter element can be more than 3 times.

记录 Record

每块过滤元件都单独经过测试并在制造厂内有记录存档。过滤元件的压降也作记录，如果是抗静电型的滤板，则表面电阻和泄漏电阻都作记录。

设计 Design



过滤元件的材料本身是有刚性的，因此不需要龙骨的支撑。由于没有了在脉冲清灰时产生的摩擦和变形，过滤元件的使用寿命得到充分延长。

干式分离的过滤元件有 PTFE 涂层（3），基材是由多孔的聚乙烯（PE）烧结而成的矩阵结构。含尘气流（1）由外向内经过滤元件，粉尘被滞留到有 PTFE 涂层的过滤元件表面上（经典的“表面过滤”），并形成一个粉尘饼（2）。除尘器的高效率有赖于这个 PTFE 多孔涂层，它能够防止粉尘颗粒深入到过滤材料的内部。净气（5）将从基材（4）的另一端出去。

Each filter element is tested separately and recorded in the manufacturing plant. The pressure drop of the filter element is also recorded. If the antistatic filter plate is used, the surface resistance and leakage resistance are recorded.

The material of the filter element itself is rigid, so it does not need the support of the keel. Due to the absence of friction and deformation during pulse ash cleaning, the service life of the filter element is fully extended.

The dry separation filter element has PTFE coating (3), and the base material is a matrix structure sintered from porous polyethylene (PE). Dust-laden airflow (1) passes through the filter element from outside to inside, and the dust is retained on the surface of the filter element coated with PTFE (classical "surface filtration") and forms a dust cake (2). The efficiency of the dust collector depends on the PTFE porous coating, which can prevent dust particles from penetrating into the interior of the filter material. Purification (5) will go out from the other end of the base material (4).

清灰 Ash cleaning

脉冲清灰系统能通过一个事先设定的时间间隔或设定的过滤差压值，触发压缩空气喷吹到过滤元件的内腔，使得粘附在过滤元件外表面的粉尘脱落。Pulse ash removal system

can trigger compressed air to inject into the inner chamber of the filter element through a pre-set time interval or set filter differential pressure value, which can make the dust adhering to the outer surface of the filter element fall off.

效率 efficiency

这种过滤材料能达到欧洲标准的 H13，相当于中国 GB13554 标准的高效（HEPA）级。

清洗和再生 Cleaning and regeneration

除了手工清洗过滤元件之外，也可以把过滤元件重新涂层（再生）——参见章节 6.50.10 “有涂层过滤元件的清理和再生”。This filter material can meet the European standard H13, equivalent to the high efficiency (HEPA) level of China's GB13554 standard.

In addition to manual cleaning of filter elements, filter elements can also be re-coated (regenerated) - see Chapter 6.50.10, "Cleaning and regeneration of coated filter elements".

4.30.10 定时清灰 Timing ash removal

脉冲清灰原则

Principle of Pulse Cleaning

烧结板科技的清灰系统通过脉冲清灰的方式来实现不停风机的在线运行。由一个控制器控制清灰脉冲顺序、强度和间隔时间（请参见章节 1 “技术参数”）

运行 Function

在“定时清灰”期间，快开式电磁阀将不断地通过预先设定的定时清灰时间间隔启动。清灰脉冲的强度通过预先设定的脉冲时间来设置。在完成初运行阶段（最长为 100h）时，处理气量必须设置到额定处理气量（请参见章节 1 “技术参数”）。过了初运行阶段后，过滤元件的差压将达到一个稳定的饱和值。

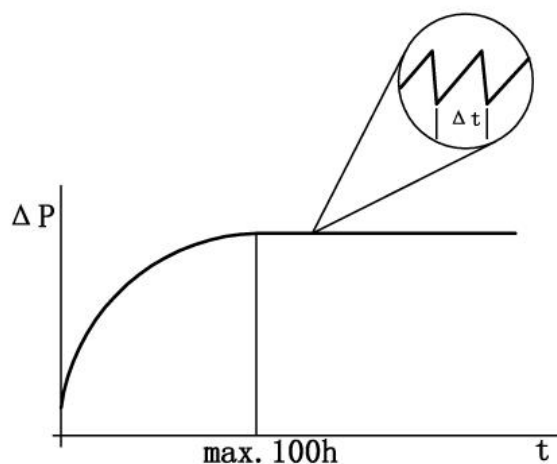
The ash cleaning system of sintered plate technology realizes on-line operation of non-stop fan by means of pulse ash cleaning. A controller controls the sequence, intensity and interval time of the ash removal pulse (see Chapter 1, Technical Parameters).

During the "time cleaning" period, the fast-opening solenoid valve will be continuously activated through the pre-set time interval of time cleaning. The intensity of the ash removal pulse is set by the preset pulse time. When the initial operation stage (up to 100h) is completed, the gas handling capacity must be set to the rated gas handling capacity (see Chapter 1, Technical Parameters). After the initial operation stage, the differential pressure of the filter element will reach a stable saturation value.

开机清灰/关机清灰 Start-up ash removal/shutdown ash removal

“开机清灰”和“关机清灰”模式是清灰的特殊形式。这种情况下，即使风机未启动（来自风机控制系统的信号），时间循环控制的清灰同样工作。可以选择清灰持续若干个循环。一个循环表示每个快开式电磁阀动作一次。（请参见章节 1 “技术参数”）。“Start-up ash removal" and "shut-down ash removal"

are special forms of ash removal. In this case, even if the fan is not started (signal from the fan control system), the time-Cycle control of the ash removal works the same. You can choose to continue several cycles of ash removal. A cycle indicates that each fast-opening solenoid valve operates once. (See Chapter 1, Technical Parameters).



4.30.20 定差压清灰 Constant differential pressure ash removal

脉冲清灰原则

Principle of Pulse Cleaning



烧结板科技的清灰系统也可以通过定差压清灰的方式实现在线运行。根据事先设定的差压上、下限来触发和停止电磁阀的工作。（请参见章节 1 “技术参数”）

定差压清灰方式的目的是之一是为了节约压缩空气的消耗，另一种目的是通过设定较高的除尘器运行阻力来取得更低的排放浓度。

应根据运行经验和除尘系统参数来确定合理的差压上下限！有可能需要再次调整（加大）调风门的开度或变频风机的工作频率，以使除尘器运行在较高差压范围内。

The ash removal system of sintered plate technology can also be operated online by means of constant differential pressure ash removal. According to the pre-set differential pressure upper and lower limits to trigger and stop the work of solenoid valve. (See Chapter 1, Technical Parameters)

One of the purposes of the fixed differential pressure ash cleaning method is to save the consumption of compressed air, and the other is to achieve lower emission concentration by setting higher operating resistance of the dust collector.

Reasonable upper and lower differential pressure limits should be determined according to operation experience and dust removal system parameters. It may be necessary to adjust (increase) the opening of the air regulating valve or the working frequency of the frequency converter fan again to make the dust collector run in a

注意事项 Matters needing attention	<p>higher differential pressure range.</p> <ul style="list-style-type: none"> - 由于离心风机的工作特点，差压上下限设定范围过大，将引起除尘系统风量的明显波动； - 下限值应大于定时清灰方式下的差压最小值。
运行 Function	<p>在“定差压清灰”期间，快开式电磁阀将通过差压上限值触法，并依次喷吹，并在达到差压下限值时暂停。清灰脉冲的强度通过预先设定的脉冲时间长度和间隔来设置</p> <p>- Because of the working characteristics of centrifugal fans, the upper and lower limits of differential pressure are set too wide, which will cause obvious fluctuations in the air volume of the dust removal system.</p> <p>- The lower limit should be greater than the minimum differential pressure under the fixed-time ash cleaning mode.</p> <p>During the period of "fixed differential pressure ash removal", the fast-opening solenoid valve will touch the upper limit of differential pressure, and then inject in turn, and stop when the lower limit of differential pressure is reached. The intensity of the ash removal pulse is set by preset pulse duration and interval.</p>
开机清灰/关机清灰 Start-up ash removal/shutdown ash removal	<p>定差压模式下，不适用本方式（定差压模式不适用于易板结的粉尘） Under the fixed differential pressure mode, this mode is not applicable (the fixed differential pressure mode is not applicable to the dust which is easy to agglomerate)</p>

4.40.10 保温 heat preservation

保温目的 Thermal insulation purpose	<p>如果除尘器内部的工作温度与外部的环境温度有较大的差异，则需要考虑对除尘器的局部或者整体进行保温：</p> <ul style="list-style-type: none"> - 防止高温或低温对人员的伤害； - 维持用户主生产系统的工作温度； - 防止水蒸汽的冷凝，造成粉尘结块、排灰不畅； - 防止水份结冰，造成灰斗堵塞；
保温型式 Insulation type	<p>针对不同的保温目的，您的除尘器将采取合适的保温型式，且使用阻燃保温材料。必要时，还可以另行采取各种加热方式以弥补保温的不足。</p> <p>If the working temperature inside the dust collector is quite different from the ambient temperature outside, it is necessary to consider the insulation of the part or the whole of the dust collector:</p> <ul style="list-style-type: none"> - Preventing injuries to persons caused by high or low temperatures; - Maintaining the operating temperature of the user's main production system; - Preventing the condensation of water vapor, resulting in dust caking and poor ash removal;

- Preventing freezing of water and clogging of ash hoppers;
For different purposes of heat preservation, your dust collector will adopt appropriate heat preservation type, and use flame retardant heat preservation materials. When necessary, different heating methods can be adopted to make up for the shortage of heat preservation.

4.50.10 安全措施（爆炸性气体环境） Safety measures (explosive gas environment)

爆炸预防原则
Principle of explosion prevention



爆炸的“三要素”为：

- 燃料
- 火源
- 氧化剂

消除任何一种要素，就可以防止爆炸的发生。

制造商预防措施
Manufacturer precautions

作为除尘器的制造商，我们的预防措施是消除除尘器内部的火源，包括：

- 降低机械设备内部易产生静电部位的电能，即使发生放电，也不足以点燃危险气体（点燃能量级别与危险气体的种类有关）；
- 避免机械摩擦和转动产生危险的高温或火花（温度级别与危险气体的种类有关）；
- 电气设备和附件满足必须的防爆等级要求（见章节 1“技术参数”）

本除尘器按照 SH3097-2000 《石油化工静电接地设计规范》要求，采取了最高级别的静电保护设计，即容易产生静电部位的静电泄漏电阻 $\leq 1\text{M}\Omega$ ，可达到“不带电”。

除尘器必须保证接地良好，用户提供的接地体的接地电阻应 $\leq 100\Omega$ ；请参见章节 7 “设备和备件的图纸、清单”中的安装接地要求。



用户/运行人员预防措施
User/Operator Preventive Measures
其它说明
Other instructions

用户/运行人员同样可以从爆炸“三要素”着手预防：

- 燃料：控制危险气体的浓度不在爆炸范围内；
- 火源：避免引入外部火源；
- 氧化剂：控制氧气的浓度低于爆炸浓度下限（例如采用惰性气体运行）；

除尘器是否采取抗爆（按照压力容器）和/或隔爆设计取决于用户主生产系统的整体设计要求；请参见章节 1 “技术参数”。现有的泄爆和抑爆手段不适用于本工况。

The "three elements" of the explosion are:

- Fuel
- Fire source
- Oxidant

By eliminating any element, explosion can be prevented.

As a manufacturer of dust collectors, our precautions are to eliminate the fire sources inside the dust collectors, including:

- Reducing the electric energy in the electrostatic parts of mechanical equipment, even if discharge occurs, is not enough to ignite dangerous gases (ignition energy level is related to the type of dangerous gases);
- Avoiding dangerous high temperatures or sparks from mechanical friction and rotation (temperature levels are related to the types of dangerous gases);
- Electrical equipment and accessories meet the required explosion-proof grade requirements (see chapter 1, "Technical parameters")

According to the requirements of SH3097-2000 Code for Design of Electrostatic Grounding in Petrochemical Industry, the dust collector adopts the highest level of electrostatic protection design, that is, the electrostatic leakage resistance of the electrostatic parts is less than 1M, which can achieve "no live".

The dust collector must ensure good grounding, and the grounding resistance of the grounding body provided by the user should be less than 100_. See Chapter 7 "Drawings and Lists of Equipment and Spare Parts" for grounding requirements for installation.

Users/operators can also prevent from exploding the "three elements":

- Fuel: Controlling the concentration of dangerous gases is not within the scope of explosion;
- Fire sources: avoid introducing external sources of fire;
- Oxygen oxidizer: control the concentration of oxygen below the lower limit of explosion concentration (e.g. operating with inert gas);

Whether the dust collector adopts explosion-proof (according to pressure vessel) and/or explosion-proof design depends on the overall design requirements of the user's main production system; see Chapter 1, "Technical parameters". Existing means of explosion relief and suppression are not suitable for this working condition.

4.50.20 安全措施（爆炸性粉尘环境） Safety measures (explosive dust environment)

爆炸预防 爆炸的“三要素”为：

- 原则 – 燃料
 Principle of explosion prevention – 火源
 – 氧化剂
 消除任何一种要素，就可以防止爆炸的发生。



制造商预防措施

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作为除尘器的制造商，我们的预防措施是消除除尘器内部的火源，包括：

- 降低机械设备内部易产生静电部位的电能，即使发生放电，也不足以点燃危险粉尘（点燃能量级别与危险粉尘的种类有关）；
- 避免机械摩擦和转动产生危险的高温或火花（温度级别与危险粉尘的种类有关）；

- 电气设备和附件满足必须的防爆等级要求（见章节 1“技术参数”）

本除尘器按照 SH3097-2000 《石油化工静电接地设计规范》要求，采取了最高级别的静电保护设计，即容易产生静电部位的静电泄漏电阻 $\leq 1\text{M}\Omega$ ，可达到“不带电”。

除尘器必须保证接地良好，用户提供的接地体的接地电阻应 $\leq 100\Omega$ ；请参见章节 7 “设备和备件图纸、清单” 中的安装接地要求。

The "three elements" of the explosion are:

- fuel
- fire source
- oxidant

By eliminating any element, explosion can be prevented.

As a manufacturer of dust collectors, our precautions are to eliminate the fire sources inside the dust collectors, including:

- Reducing the electric energy of electrostatic parts in mechanical equipment, even if discharge occurs, is not enough to ignite dangerous dust (ignition energy level is related to the type of dangerous dust);

- Avoid dangerous high temperatures or sparks caused by mechanical friction and rotation (temperature levels are related to the types of hazardous dust);

- Electrical equipment and accessories meet the required explosion-proof grade requirements (see chapter 1, "Technical parameters")

According to the requirements of SH3097-2000 Code for Design of Electrostatic Grounding in Petrochemical Industry, the dust collector adopts the highest level of electrostatic protection design, that is, the electrostatic leakage resistance of the electrostatic parts is less than



1M, which can achieve "no live".

The dust collector must ensure good grounding, and the grounding resistance of the grounding body provided by the user should be less than 100_. See Chapter 7 "Drawings and Lists of Equipment and Spare Parts" for grounding requirements for installation.

制造商保护措施 当预防措施失效而引起了粉尘爆炸时，相应的保护措施可以降低爆炸对人员的伤害和设备的损坏。制造商可能采取的单独或结合措施有：

- Manufacturer Protection Measures
- 泄爆设计和灭焰装置
 - 抗冲击设计
 - 抗爆设计（按压力容器标准）
 - 抑爆设备
 - 隔爆设备

本除尘器所采取的保护措施请参见“章节 7”中的设备图纸中的说明。

用户/运行人员预防 用户/运行人员同样可以从爆炸“三要素”着手预防：

- User/Operator Preventive Measures
- 燃料：控制危险粉尘的浓度不在爆炸范围内；
灰斗内不应存料；
集尘桶内的料位不应>25%；
保持工作区和厂房的清洁（防止二次爆炸）
 - 火源：避免引入外部火源；
尘气管道安装火花捕集器
可靠的静电接地措施；
不得违章动火；
 - 氧化剂：控制氧气的浓度低于爆炸浓度下限（例如采用惰性气体运行，包括清灰的压缩气体）；

When the preventive measures fail and cause dust explosion, the corresponding protective measures can reduce the damage to personnel and equipment caused by the explosion. Individual or combined measures that a manufacturer may take include:

Explosion relief design and flame extinguishing devices

Impact design

Anti-explosion design (Pressure Vessel Standard)

Explosion suppression equipment

Flameproof equipment

he protective measures taken by this dust collector are described in the equipment drawings in Chapter 7.

sers/operators can also prevent from exploding the "three elements":

Fuel: Controlling the concentration of hazardous dust is not within the scope of explosion;

o material should be stored in the ash hopper.

he material level in the dust collector should not exceed 25%.

keep the workspace and workshop clean (prevent secondary explosion)

Fire sources: avoid introducing external sources of fire;

nstallation of Spark Catcher in Dust Pipeline

reliable electrostatic grounding measures;

o fire shall be set against the rules.

- - Oxygen oxidizer: control the concentration of oxygen below the lower limit of explosion concentration (e.g. using inert gases, including compressed gases for ash removal);

用户/运行 人员保护 措施 User/Oper ator Protection Measures	-	泄爆通道应排至开放的安全区域，不得朝向人员通道；
	-	保持泄爆通道的畅通（不得随意变向和改动、不得堆放杂物、及时清理雨水和冰雪）；
	-	定期检查和试验安全系统的设备，并及时补充消耗剂或更换损坏的部件（参见相应的 OEM 部件原始说明书）；
	-	完善的消防预案和执行人员
	-	除尘器的地脚螺栓必须可靠固定，以抵抗爆炸反作用力；

结板过滤元件能起到阻隔粉尘爆炸的作用（相当于阻火器），因此除尘器的净气室及其下游设备不会被尘气室内所发生的粉尘爆炸的火焰波及。与尘气室相连的尘气管道以及灰斗排灰口存在粉尘爆炸火焰波及相连管道和设备风险，如果未要求制造商提供隔爆设备，则用户必须考虑相应的安全措施。

- Explosion vents should be discharged into open safety zones and should not be directed towards personnel passages;

—
Keep the detonation discharge passage open (no change of direction or alteration at will, no accumulation of debris, timely cleaning of rain and ice and snow);

—
Regular inspection and testing of safety system equipment, and timely replenishment of consumables or replacement of damaged components (see corresponding OEM component original instructions);


—
Perfect fire prevention plans and executives

—
The foot bolts of the dust collector must be fixed reliably to resist the reaction force of explosion;

- - Sintered plate filter element can prevent dust explosion (equivalent to fire arrester), so the clean air chamber and downstream equipment of the dust collector will not be affected by the flame of dust explosion in the dust chamber。 Dust gas pipeline and ash hopper outlet connected with dust chamber have the risk of dust explosion flame spreading to the connected pipeline and equipment. If the manufacturer is not required to provide explosion-proof equipment, the user must consider the corresponding safety measures.

5.00 运行 Function

5.10.100 初投运，无风机版本 Initial commissioning, fan-free version

准备 Get ready	安装所有的安全设备 连接压缩空气和电源 安装风管 关闭管道上的调节设备（例如调风阀）（不适用于预涂层）
检查压缩空气源 Check compressed air source	按照章节 3.2 中有关说明进行，设定值可以在章节 1 “技术参数” 中找到。 按照章节 5.4 中有关说明进行。
检查清灰系统	
检查连续排灰设备转向（可选）	遵守事故预防规程；安装防护网和/或附件以便后续运行。
检查处理气量 Check the ash cleaning system	对于新的过滤元件，低压降会导致无法接受的超大气流量，从而损坏过滤元件。 基于这个原因，处理气量必须调整到设计值。
Check steering of continuous ash removal equipment (optional)	例如，必须要在尘气侧或净气侧安装风量调节阀（“减少处理气量”）。大约运行 100 小时之后，除尘器阻力将达到正常值，因此有必要再次调整除尘器。如果您没有必要的检测工具，请与我们联系！
Check the amount of treated gas	Install all safety equipment Connect compressed air to power supply Installation of air duct Close the regulator (e.g. air valve) on the pipe (not suitable for pre-coating)
	According to the instructions in Chapter 3.2, setting values can be found in Chapter 1, Technical Parameters.
	Follow the instructions in Chapter 5.4.
	Comply with accident prevention rules; install protective nets and/or accessories for subsequent operation.
	For new filter elements, low-pressure drop will lead to unacceptable super-atmospheric flow, thereby damaging the filter elements.
	For this reason, the gas handling capacity must be adjusted to the design value.
	For example, airflow control valves must be installed on the dust side or the clean side ("reduce the handling capacity"). After about 100 hours of operation, the resistance of the dust collector will reach the normal value, so it is necessary to adjust the dust collector again. If you do not have the necessary testing tools, please

	contact us!
检查工况参数	- 差压
Check working	- 处理气量
condition	- 清灰
parameters	- 清灰系统的开关触点和报警触点 (等到吸风管道已经安装好之后)
	这些设置可以在章节 1 “技术参数”中找到, 或者由烧结板科技派员指导。
	Differential pressure
	- Gas handling capacity
	- ash cleaning
	- Switch contacts and alarm contacts of ash cleaning system (After the suction pipe has been installed)
	These settings can be found in Chapter 1, Technical Parameters, or guided by Sintered Plate Science and Technology Deployees.
5.10.101	初投运, 有风机版本 Initial commissioning, fan version
准备 Get ready	安装所有的安全设备
	连接压缩空气和电源
	安装风管
	关闭管道上的调节设备 (例如调风阀) (不适用于预涂层) (不适用于变频风机) Install all safety equipment
	Connect compressed air to power supply
	Installation of air duct
	Close the regulating equipment (e.g. air valve) on the pipe (not suitable for pre-coating) (not suitable for frequency converter fans)
检查压缩空气源	按照章节 3.2 中有关说明进行, 设定值可以在章节 1 “技术 参数”中找到。According to the instructions in Chapter 3.2, setting values can be found in Chapter 1, Technical Parameters.
Check compressed air source	
检查清灰系统	按照章节 5.40 中有关说明进行。
检查连续排灰设 备转向 (可选)	遵守事故预防规程; 安装防护网和/或附件以便后续运行。
检查风机转向	判断标准是: 风机转向正确时, 除尘器的处理风量较大 (如 果出风口排大气, 可直接观察或测量), 或者除尘器的抽吸负 压值较大 (调试时可以打开净气室的一个检查孔来判断)。如 果不确定, 可以调换风机三相电源的其中两相来对比判断 (仅 限有资质的电气人员)。Follow the instructions in Chapter 5.40.
Check the ash cleaning system	Comply with accident prevention rules; install protective nets and/or accessories for subsequent operation.
Check steering of continuous ash removal equipment (optional)	The criteria for judging are: when the fan steers correctly, the handling air volume of the dust collector is larger (if the outlet
Check fan steering	

discharges air, it can be directly observed or measured), or the suction negative pressure of the dust collector is larger (when debugging, it can be judged by opening a check hole in the clean air chamber). If you are not sure, you can change the two phases of the three-phase power supply of the fan to compare and judge (only qualified electricians).

检查处理气量
Check the amount
of treated gas



对于新的过滤元件，低压降会导致无法接受的超大气流量，从而损坏过滤元件。

基于这个原因，处理气量必须调整到设计值。

例如，必须要在尘气侧或净气侧安装风量调节阀（减少处理气量），或者降低变频风机的转速。

大约运行 100 小时之后，除尘器阻力将达到正常值，因此需要再次调整除尘器。如果您没有必要的检测工具，请与我们联系！For new filter elements, low pressure drop will lead to unacceptable super-atmospheric flow, thereby damaging the filter elements.

For this reason, the gas handling capacity must be adjusted to the design value.

For example, it is necessary to install airflow-regulating valves on the dust side or the clean side (reducing the handling capacity), or to reduce the speed of the frequency converter fan.

After about 100 hours of operation, the resistance of the dust collector will reach the normal value, so the dust collector needs to be adjusted again. If you do not have the necessary testing tools, please contact us!

检查工况参数
Check working
condition
parameters

- 差压
- 处理气量
- 清灰
- 清灰系统的开关触点和报警触点
（等到吸入管道已经安装好之后）

这些设置可以在章节 1 “技术参数”中找到，或者由烧结板科技派员指导。Differential pressure

- Gas handling capacity
- Ash cleaning
- Switch contacts and alarm contacts of ash cleaning system
(After the suction line has been installed)

These settings can be found in Chapter 1, Technical Parameters, or guided by Sintered Plate Science and Technology Deployees.

5.20.101 通过电控箱启动/停止除尘器 Start/Stop Dust Collector by Electric Control Box



除尘器启动时必须启动脉冲清灰系统。仅限授权人员方可启动和停止除尘器（需指定运行人员）。确信除尘器在产生粉尘的机器之前启动。除尘器的控制系统不控制其它机器。



仅由有资质的电气人员才能从事除尘器控制系统（除尘器电控箱）的电气工作。可通过用户端配电、远程信号交换等方式将除尘器电控箱纳入用户的集控系统。用户端的配电应有主开关。紧急情况下，可以关掉电控箱上的主开关（功能相当于紧急停止开关）。每班结束的时候，我们建议您将用户配电的主开关置于“停止”的位置。

缺少安全设备的时候永远不要启动除尘器。电磁阀必须根据端子图（章节 8）接线。Pulse ash cleaning system must be started when the dust collector starts. Only authorized personnel can start and stop the dust collector (designated operators are required). Make sure that the dust collector starts before the machine that produces the dust. The control system of the dust collector does not control other machines.

Only qualified electrical personnel can be engaged in the electrical work of the dust collector control system (dust collector electronic control box). The electronic control box of the dust collector can be integrated into the user's centralized control system by means of power distribution at the user end and remote signal exchange. The main switch should be used in the power distribution at the user end. In case of emergency, the main switch on the electronic control box can be turned off (the function is equivalent to the emergency stop switch). At the end of each shift, we recommend that you place the main switch of the user's distribution in the "stop" position.

Never start a dust collector without safety equipment. The solenoid valve must be connected according to the terminal diagram (Chapter 8).

推荐的启动顺序
Recommended
startup sequence

- 打开压缩空气供气阀门
 - 启动排灰设备（如有）
 - 启动清灰系统
 - 启动风机（如有）
 - 启动产生粉尘的设备
- 停止顺序与此相反。

风机（如有）和清灰系统的启动可通过除尘器电控箱上的“就地”+“启动”方式实现，也可以通过“远程”+远程启动

信号来实现。请根据您的需求来制定启动顺序。

如果有必要设置安全联锁，我们推荐您必须准备运行手册。

请记住：让除尘器与产生粉尘的设备一起启动是为了满足工况参数的要求（请参见章节 1 “技术参数”）。 - Open the compressed air supply valve

- Start up ash removal equipment (if any)
- Start up the ash removal system
- Start the fan (if any)
- Start up dust-producing equipment

The stop order is the opposite.

The start-up of fan (if any) and ash cleaning system can be realized by "on-site"+ "start-up" mode on the electronic control box of dust collector, or by "remote "+remote start-up signal. Please set the start-up sequence according to your specific needs.

If it is necessary to set up a security interlock, we recommend that you prepare the operation manual.

Keep in mind that starting the dust collector with the equipment that produces the dust is to meet the requirements of operating conditions (see Chapter 1, "Technical parameters").

操作方法

Operation method

详细的电路图和电控箱操作方法，请参见章节 8 “电路图/端子图” 中相关内容。For detailed circuit diagrams and operation methods of control boxes, please refer to the relevant contents of Chapter 8 "Circuit Diagram/Terminal Diagram".

5.40.10 检查脉冲清灰系统 Check Pulse Ash Cleaning System

检查压缩空气源
Check compressed air source

清灰过程需要充足的压缩空气供应。这点很重要：压力控制阀（过滤减压阀）上的压力表指针能够在两次脉冲间隔中恢复到设定压力（章节 1 “技术参数”）

安全阀
Safety valve

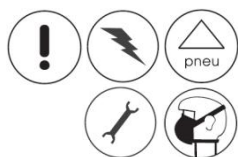
分气箱上的安全阀不得调整或拆除！Adequate supply of compressed air is required for the ash removal process. This is important: the pressure gauge pointer on the pressure control valve (filter pressure relief valve) can restore the set pressure in two pulse intervals (Chapter 1 "Technical parameters").

The safety valve on the air divider shall not be adjusted or removed.

- 准备 Get ready** 除尘器的外部系统未投入运行的时候，将除尘器切换到“就地”以及喷吹系统的“手动”模式，然后进入电磁阀操作界面，选择“局部喷吹”方式，将仅启动喷吹程序（仅限于某些控制系统配置）。
- 常规的脉冲仪为核心的控制系统，除尘器切换到“就地”+“启动”后，脉冲仪直接得电并开始工作（在“定差压模式”下不一定有喷吹动作）
- When the external system of the dust collector is not in operation, switch the dust collector to the "on-site" mode and the "manual" mode of the injection system, then enter the solenoid valve operation interface, select the "local injection" mode, and only start the injection program (limited to some control system configuration).
- The control system with conventional pulse meter as the core, after the dust collector is switched to "on-site "+start-up, the pulse meter gets electricity directly and starts to work (there is no injection action under "constant differential pressure mode").
- 检查 inspect** – 所有的电磁阀的喷吹强度和发出的喷吹响声基本一致
- 每个脉冲之间的间隔时间一样长
-
- 有清灰脉冲之后的压力控制阀（过滤减压阀）上压力表的压降基本一致- The injection intensity of all solenoid valves is basically the same as the sound of injection.
-
- The interval between each pulse is the same.
- - Pressure drop of pressure gauges on pressure control valves (filter pressure relief valves) after all ash removal pulses is basically the same

6.00 维护和服务 Maintenance and service

6.10 检查和维护周期 Inspection and maintenance cycle



仅授权人员可从事检查和维护工作（请列出人员姓名）。
建议签订维护合同！

修理工作必须严格地交由烧结板科技或烧结板科技授权的代理！ Only authorized personnel can perform inspection and maintenance work (please list the names of personnel).

Suggest signing maintenance contract!

Repair work must be strictly handed over to the authorized agent of sintered plate science and technology or sintered plate science and technology.

推荐 Recommend

所推荐的周期是根据单班运行编制的，应根据需要作出调整，例如：

- 两班运行
- 磨损性的粉尘
- 较高的温度
- 其它等等

参考 Reference resources

如需查询 OEM 部件的检查和维护周期相关信息，请参见章节 10 “OEM 部件的原始说明书”。The recommended cycle is based on single shift operation and should be adjusted according to needs, such as:

- Two shifts
- abrasive dust
- Higher temperatures
- Others, etc.

For information on the inspection and maintenance cycle of OEM components, please refer to Chapter 10, "Original Instructions for OEM Components".

6.20 故障诊断 fault diagnosis

查找故障和修理工作必须严格地交由有资质的和经授权的专业人员进行。



在检测相关部件是否良好时，总是有较高的事故风险。



在可能发生爆炸的气氛内使用的故障设备必须由制造商来更换和修理。




在试图进行任何修理之前，绝对有必要将除尘器有关部件断气、断电。






如下信息有助于我们为您提供建议和帮助。

- 设备型号（铭牌）
- 产品编号（铭牌）

		- 参数设定值	
		- 过滤元件压降（实时差压）	
		-	5
		理气量	
		Finding and repairing faults must be strictly handed over to qualified and authorized professionals.	
		-	T
		here is always a high risk of accidents when testing whether the relevant components are good or not.	
		-	F
		aulty equipment used in an atmosphere where explosions may occur must be replaced and repaired by the manufacturer.	
		-	E
服务 service		efore attempting any repairs, it is absolutely necessary to disconnect and cut off the relevant parts of the dust collector.	
		-	T
		he following information will help us to give you advice and help.	
		-	-
		Equipment type (nameplate)	
		-	-
		Product number (nameplate)	
		-	-
		Parameter settings	
		-	-
参考 Referen ce resource s		Pressure drop of filter elements (real-time differential pressure)	
		- - Gas handling capacity	
		如果您在排除故障的时候遇到了困难，请与我们的服务部门联系。有时候一条小小的建议也许能帮助您解决问题。我们很乐意为您提供帮助。	
		If you encounter difficulties in troubleshooting, please contact our service department. Sometimes a small suggestion may help you solve the problem.	
		We are happy to help you.	
		请参见章节 1 “技术参数”	
		See section 1, "Technical parameters".	

6.30.10

拆卸/安装 DF 系列过滤元件 Disassembly/Installation of DF Series Filter Elements



仅允许由被授权人员从事除尘器的工作（请列出人员姓名）。获取除尘器所处理的粉尘/气体的信息和需遵守的安全和



环保方面的规章制度，当有需要时，使用合适的工作平台。

关断除尘器主开关，并采取预防措施以防止被误合闸。

当安装过滤元件时，请确信

- 使用没有任何缺陷的过滤元件
- 使用螺纹锁固剂（中等强度）安装过滤元件的定位套管
- 拧紧到规定的扭矩

在安装前检查过滤元件上是否有任何损坏，包括

- 由于磨损性粉尘造成的磨损痕迹
- 密封圈是否损坏
- 过滤元件头部的加强钢板是否有松动

只要有一件过滤元件损坏，就会导致整个除尘器的损坏，
因为由于泄漏，除尘器内部会积满粉尘。



在拆卸过滤元件之前，请确信订购下列配件：

能立刻替换已损坏的密封圈的新备件

用于固定密封圈两端的闪电胶

螺纹锁固剂（中等强度）

Only authorized personnel are allowed to work as dust collectors (please list the names of the personnel). Obtain the dust/gas information processed by the dust collector and the safety and environmental regulations to be followed, and use the appropriate working platform when necessary.

Turn off the main switch of the dust collector and take preventive measures to prevent misclosing.

Be sure when installing filter elements

- Use of filter elements without any defects
- Positioning sleeve for installation of filter elements with thread locking agent (medium strength)
- Tighten to specified torque

Check for any damage to the filter element before installation, including

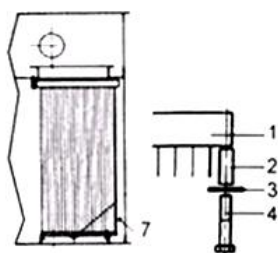
- Wear marks caused by abrasive dust
- Was the seal ring damaged?
- Is the reinforced steel plate on the head of the filter element loosened?

As long as one filter element is damaged, it will lead to the damage of the whole dust collector, because of the leakage, dust will accumulate inside the dust collector.

Before disassembling the filter elements, be sure to order the following accessories:

New spare parts that can replace damaged sealing rings immediately

拆卸 Disassemble



Lightning glue for fixing both ends of sealing ring

Thread Locking Agent (Medium Strength)

取决于设备型号，本体内可能有 1~3 排过滤元件。

- 如果内部有运输支撑管（7），必须拆除（不再需要）。从本体的左右两边拆除螺栓，然后重新用螺栓封闭此孔。
- 将过滤元件（1）前侧的紧固螺栓（4）松开后与垫片（3）、定位套管（2）一起拿掉
- 小心地将过滤元件从除尘器中抽出，取下
- 将过滤元件放置在合适的水平面上保存，相互之间有衬垫（章节 3.10.20）

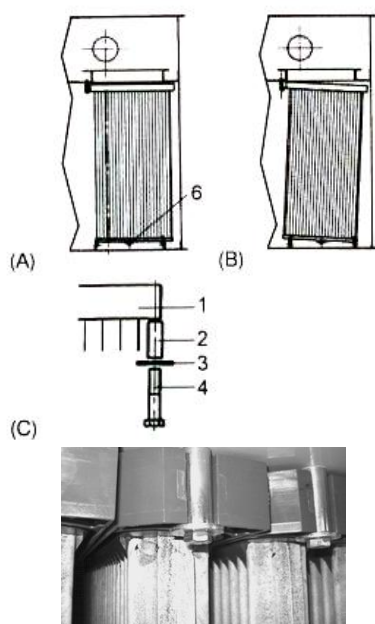
一排过滤元件拆除后，将后排过滤元件的前侧螺栓拆除。

如为防静电过滤元件，则还需要拆除前排的导电条！

安装 install

在安装每排的过滤元件之前，将每排后侧所有的紧固螺栓（4）以及它们的垫片（3）和定位套管（2）先装好（使用扭矩扳手）。如为防静电过滤元件，必须装好导电条和所有导线！

安装顺序：总是先安装两外侧的过滤元件。



(A)

- 抬起过滤元件放入除尘器，并滑入底部定位架（6）上相应的凹槽（从人孔门方向看，封头上有倒角的一侧朝左边）

(B)

- 向下倾斜过滤元件的外侧
- 将过滤元件（1）推入内侧已紧固的螺栓上。

(C)

- 抬起过滤元件（1）的外侧并用手装上涂了螺纹锁固剂的螺栓（M8）和垫片（3）、定位套管（2）。

注意：42mm 长度的定位套管（2）能防止对过滤元件（1）的损坏和挤破密封圈。定位套管（2）必须要安装。

将所有的螺栓用扭矩扳手紧固一遍。

Depending on the type of equipment, there may be 1 to 3 rows of filter elements in the body.

- If there is an internal transport support pipe (7), it must be removed (no longer needed). Remove the bolts from the left and right sides of the body, and then re-seal the hole with bolts.

- Remove the front fastening bolt (4) of the filter element (1) together with the gasket (3) and the positioning sleeve (2) after loosening.

- Carefully remove the filter elements from the dust collector

- Place the filter elements on a suitable horizontal surface and

store them with pads between them (Chapter 3.10.20)

After a row of filter elements are removed, the front bolts of the back row filter elements are removed.

If the anti-static filter element, it also needs to remove the front conductor bar!

Before installing the filter elements in each row, all the fastening bolts (4) and their gaskets (3) and positioning sleeves (2) at the back of each row are installed (using a torque wrench). For anti-static filter elements, conductive bars and all wires must be installed!

Installation sequence: Always install the filter elements on both sides first.

(A)

- Lift the filter element into the dust collector and slide into the corresponding groove on the bottom positioning frame (6) (from the direction of the manhole door, the chamfered side on the head faces the left side)

(B)

- The outer side of the downward tilt filter element

- Push the filter element (1) onto the inner fastened bolt.

(C)

- Lift the outside of the filter element (1) and hand-coat the bolts (M8) and gaskets (3) coated with thread locking agent, and the positioning sleeve (2).

Note: The positioning sleeve (2) of 42mm length can prevent damage to the filter element (1) and break the sealing ring. Positioning sleeve (2) must be installed.

Tighten all bolts with a torque wrench.



规定的扭矩: The specified torque:

- M8=20Nm

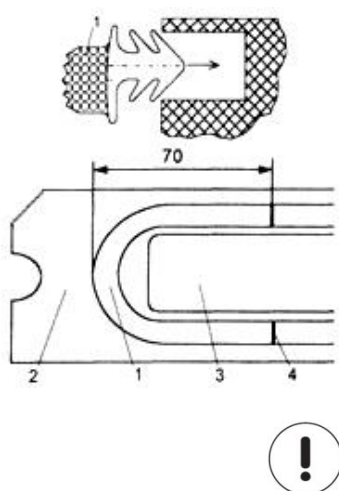
检查 inspect

重新启动除尘器之前, 检查净气室是否由于安装错误而出现泄漏的粉尘。如需咨询荧光粉检漏的方法, 请联系烧结板科技。Before restarting the dust collector, check whether there is any dust leaking from the cleaning chamber due to installation errors. If you need to consult the phosphor leak detection method, please contact the sintered plate technology.

6.40.60 更换 DF 型过滤元件的密封圈 Replacement of Seal Ring for DF Type Filter Element



仅允许由被授权人员从事除尘器的工作 (请列出人员姓名)。获取除尘器所处理的粉尘/气体信息和需遵守的安全和环保方面的规章制度。



拆除和安装过滤元件的过程参见章节 6.30.xx

将异型密封圈取下 (1)

彻底清洁密封圈与凹槽的接触面

向两头半圆范围的凹槽内注入闪电胶

当装入密封圈 (1) 的时候, 注意密封圈接头的位置 (4) 不能位于两端部的 70mm 范围内

将密封圈均匀地用手压入凹槽

检查密封圈是否全部服帖

(2) 过滤元件头部

(3) 过滤元件内腔

注意: 尘气室安装方式, 异形密封圈在过滤元件头部的上端面; 净气室安装方式, 异形密封圈在过滤元件头部的下端面。

Only authorized personnel are allowed to work as dust collectors (please list the names of the personnel). Access to dust/gas information and safety and environmental regulations to be followed.

The process of removing and installing filter elements is described in Section 6.30.xx.

Remove the special-shaped sealing ring (1)

Thoroughly clean the contact surface between seal ring and groove

Inject lightning glue into the grooves at both ends of the semicircle

When loading the sealing ring (1), note that the position of the sealing ring joint (4) should not be within 70 mm at both ends.

Press the seal ring evenly into the groove by hand

Check whether the sealing rings are fully adhered to

(2) Head of filter element

(3) Filter element chamber

Note: Dust chamber installation method, special-shaped sealing ring in the top end of the head of the filter element; Cleaning chamber installation method, special-shaped sealing ring in the bottom end of the head of the filter element

6.50.10 有涂层的过滤元件的清理和再生 Cleaning and Regeneration of Coated Filter Elements







仅允许由被授权人员从事除尘器的工作 (请列出人员姓名)。

获取除尘器所处理的粉尘/气体信息和需遵守的安全和环保方面的规章制度。

清理 Clear	<p>过滤元件的清理并不是维护程序的必要步骤。</p> <p>如果由于故障或者其它原因而必须清理，则请联系烧结板科技。</p> <p>相信我们的经验能告诉您哪种方式最适合您的粉尘。</p> <p>Only authorized personnel are allowed to work as dust collectors (please list the names of the personnel).</p> <p>Access to dust/gas information and safety and environmental regulations to be followed.</p> <p>Cleaning of filter elements is not a necessary step in maintaining the program.</p> <p>If it has to be cleaned up due to malfunction or other reasons, please contact Sintered Plate Technology.</p> <p>I believe our experience can tell you which way is best for your dust.</p>
服务部门 Service sector	<p>能从我们的售后服务部门直接得到如何清理过滤元件的信息，请拨打本手册封面上的咨询和服务热线电话。</p> <p>Information on how to clean up the filter elements can be obtained directly from our after-sales service department. Please call the advisory and service hotline on the cover of this manual.</p>
允许的清理方式 Permissible Cleaning Ways	<p>在得到烧结板科技事先同意的前提下：</p> <ul style="list-style-type: none"> - 脉冲喷吹 - 清水缓速冲洗 - 软毛刷刷洗 - <p>with the prior consent of sintered plate science and technology:</p> <ul style="list-style-type: none"> - - Pulse injection - - Slow rinse with clear water - - Soft brush scrubbing
不允许的清理方式 Inadmissible Cleaning Ways	<ul style="list-style-type: none"> - 两种方式结合清理：刷洗和冲洗 - 所有形式的粗暴的机械清理，例如尼龙刷 - 避免任何会促使粉尘钻入过滤元件内部的器具 - 使用蒸汽清洗设备或者高压清洗机 - 通过溶剂或者清洁剂的方式 - 过滤元件尚未干燥就运行除尘器 - 任何未经授权的修理 - <p>Two ways of cleaning: scrubbing and flushing</p> <ul style="list-style-type: none"> - <p>All forms of rough mechanical cleaning, such as nylon brushes</p>

	-	Avoid any device that will cause dust to penetrate into the filter element
	-	Use steam cleaning equipment or high-pressure cleaners
	-	By means of solvents or detergents
	-	Dust collectors are operated before the filter elements are dried.
再生 regenerate	-	- Any unauthorized repair 当过滤元件再生时，它是被重新进行了表面涂层。此事只能交给烧结板科技来做。When the filter element is regenerated, it is re-coated. This can only be done by sintered sheet technology.
服务部门 Service sector		能从我们的服务部门直接得到如何再生过滤元件的信息，请拨打本手册封面上的咨询和服务热线电话。Information on how to regenerate filter elements can be obtained directly from our service department. Please call the advisory and service hotline on the cover of this manual.
不适合再 生的过滤 元件 Filter Elements		当过滤元件发生如下情况时将无法再生： - 遭受机械损坏 - 有内部的粉尘沉积 - 粘附了有毒或者影响健康的粉尘
Not Suitable for Regenerati on		hen the filter element occurs as follows, it will not be regenerated: - Mechanical damage - Internal dust deposition - Adhesion of toxic or health-affecting dust

6.60.11 快开式电磁阀的清理 Cleaning of Quick Opening Electromagnetic Valve

- 
- 仅允许由被授权人员从事快开式电磁阀工作（列出姓名）。
 - 关断压缩空气供应，降低除尘器供气管路的压力
 - 不要调节清灰压力控制阀（过滤减压阀）（章节 1 “技术参数”）
 - 保护压缩空气供应不会被误合闸。
 - 在没有粉尘进入的情况的运行除尘器（或清灰系统）以使分气箱的压力降低到零
 - 检查压力控制阀（过滤减压阀）的压力表。
- 如果不照做，会导致非常严重的伤害！
- 将除尘器的电源断开
 - 将线圈的接线断开
 - 松开 4 个 M8 的螺栓

O

Only authorized personnel are allowed to work on fast-opening solenoid valves (list names).

Turn off the supply of compressed air and reduce the pressure of the air supply pipeline of the dust collector

Do not adjust the ash cleaning pressure control valve (filter pressure relief valve) (Chapter 1 "Technical parameters")

Protect the compressed air supply from misclosing.

Operating a dust collector (or ash removal system) in the absence of dust entry to reduce the pressure of the air separator to zero

Check the pressure gauge of the pressure control valve (filter pressure relief valve).

-if you don't do it, it will lead to very serious injury!

-disconnect the power supply of the dust collector

Disconnect the coil

- Loosen four M8 bolts

- 从分气箱上取出快开式电磁阀的阀体（6）、弹簧（7）和大膜片（2）

- 检查是否：

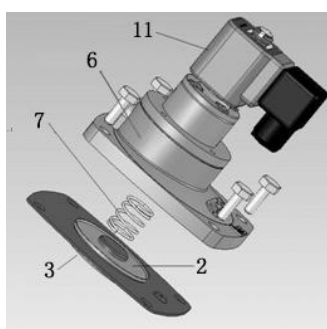
- 大膜片（2）是否损坏或肿胀，必要时更换
- 阀管（4）的密封面和大膜片（2）是否有脏污，必要时清理
- 阀板（3）上是否有很深的阀管（4）压痕，必要时更换大膜片（2）（阀板是大膜片的组成部分）
- 大膜片（2）的排气孔（空心铆钉）堵塞，必要时清理（用压缩空气吹扫）
- 大膜片（2）的弹簧（7）破损，必要时更换

- 松开阀体上 4 个 M5 的螺栓

- 取出小膜片（10）

- 检查：

- 小膜片（10）是否损坏或肿胀，必要时更换
- 排气孔（12）是否堵塞，必要时清理（用压缩空气吹扫）



Remove the body (6), spring (7) and large diaphragm (2) of the

fast-opening solenoid valve from the air divider.

Check whether:

Whether the large diaphragm (2) is damaged or swollen and replaced if necessary

Was there any dirt on the sealing surface and large diaphragm of the valve tube (4) and should be cleaned if necessary?

Is there a deep indentation on the valve plate (3) on the valve tube (4) and replace the large diaphragm (2) if necessary (the valve plate is part of the large diaphragm)

Blockage of exhaust holes (hollow rivets) of large diaphragm (2) and cleaning if necessary (blowing with compressed air)

The spring (7) of the large diaphragm (2) is damaged and replaced if necessary.

Loosen four M5 bolts on the valve body

Removal of small diaphragms (10)

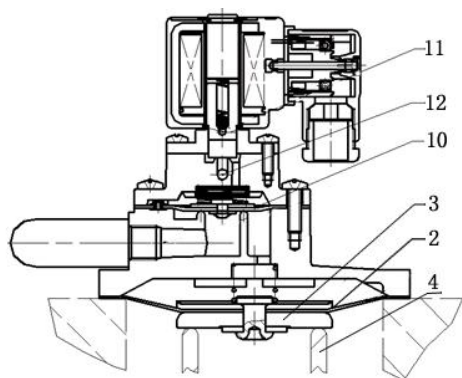
Check:

Whether the small diaphragm (10) is damaged or swollen and replaced if necessary

- Whether the exhaust hole (12) is blocked and cleaned if necessary (purged with compressed air)

- 组装
Assemble
- 装入一个新的（或者虽然是旧的但还是完好的）小膜片并用 4 个 M5 的螺栓紧固电磁阀的上部，力矩 6Nm
 - 安装之前，将 M8 的螺栓涂上螺纹锁固剂（中等强度）
 - 将快开式电磁阀的本体（6）、弹簧（7）和大膜片（2）装到分气箱上
 - 大膜片上的铆钉必须对准烧结板科技的 Logo 一边。
 - 将 M8 的螺栓以交替旋转的方式拧紧，力矩 14Nm
 - 将线圈的接线连接上
 - 打开压缩空气供气管路，并检查是否一切正常。

Install a new (or old but still perfect) diaphragm and tighten the upper



part of the solenoid valve with four M5 bolts at a moment of 6Nm.

Apply thread locking agent (medium strength) to M8 bolts before installation.

Install the main body (6), spring (7) and large diaphragm (2) of the fast-opening solenoid valve on the air divider.

ivets on large diaphragms must be aligned to the Logo side of sintered sheet technology.

Tighten the bolts of M8 by alternating rotation with a torque of 14Nm

Connect the coil wiring

- - Open the compressed air supply pipeline and check whether everything is normal.

6.60.40 差压取样的过滤棒清理 Filter rod cleaning for differential pressure sampling



仅允许由被授权人员从事除尘器的工作（请列出人员姓名）。获取除尘器所处理的粉尘/气体信息和需遵守的安全和环保方面的规章制度，当有需要时，使用合适的工作平台。



关断除尘器主开关，并采取预防措施以防止被误合闸。



- 过滤元件的差压取样管是有颜色的塑料管：

桔色或蓝色为净气；黑色为尘气



- 过滤棒装在除尘器内部的取样管末端上。尘气室内的过滤棒需要经常性地清理，以防止出现错误的差压读数。尘气室内的过滤棒可以从外部或内部来清理。

因
为净气室和尘气室内的取样头过滤棒是配对的，所以最好是同时更换。
Only authorized personnel are allowed to work as dust collectors (please list the names of the personnel). Obtain the dust/gas information processed by the dust collector and the safety and environmental regulations to be observed, and use the appropriate working platform when necessary.

Turn off the main switch of the dust collector and take preventive measures to prevent misclosing.

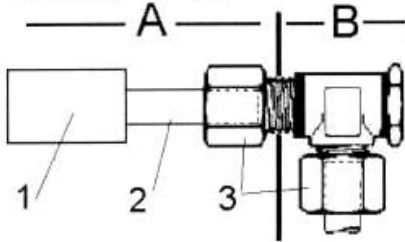
Differential pressure sampling tubes of filter elements are coloured plastic tubes:

Orange or blue is pure gas; black is dust gas.

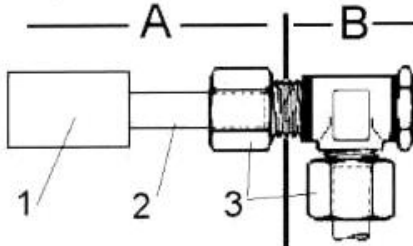
The filter rod is mounted on the end of the sampling tube inside the dust collector. The filter rods in the dust chamber need to be cleaned regularly to prevent erroneous differential pressure readings. The filter rod in the dust chamber can be cleaned from outside or inside.

- Because the sampling head filter rods in the clean air chamber and the dust chamber are matched, it is better to replace them at the same time.

从外部清理(B侧)



从内部清理(A侧)



- 从外部 (B) 将黑色塑料管从尘气室的气管接头上拆除。要拆除塑料管，需将气管接头上的盖帽螺母 (3) 松开后将塑料管拉出
用压缩空气枪对准气管接头 (使用无油的压缩空气!)。注意：千万不要将压缩空气对准塑料管吹，否则会损坏差压变送器!
- 将塑料管装回气管接头并拧紧盖帽螺母 (3)
- 从尘气室 (A) 内部将气管接头的盖帽螺母 (3) 松开，将过滤棒 (1) 以及粘合在一起的那段塑料管 (2) 一起从气管接头上取下
将无油的压缩空气从里向外吹扫过滤棒 (1)。注意：千万不要将压缩空气对准气管接头吹，否则会损坏差压检测仪表!
- 将粘着塑料管段的过滤棒 (1) 装回气管接头，并用盖帽螺母 (3) 紧固。
- Remove the black plastic pipe from the air pipe joint of the dust chamber from the outside (B). To remove the plastic pipe, the cap nut (3) on the pipe joint should be loosened and the plastic pipe should be pulled out.
- Align the compressed air gun at the tracheal joint (use oil-free compressed air!). Note: Do not aim compressed air at plastic pipe, otherwise it will damage differential pressure transmitter!
- Install the plastic pipe back into the air pipe joint and tighten the cap nut (3)
- Release the cap nut (3) of the tracheal joint from the inside of the dust chamber (A), remove the filter rod (1) and the plastic pipe (2) glued together from the tracheal joint.
- Purge the oil-free compressed air from the inside to the outside of the filter rod (1). Note: Do not blow compressed air into the air pipe joint, otherwise it will damage the differential pressure-measuring instrument!
- Install the filter rod (1) adhering to the plastic pipe segment into the return pipe joint and use the cap nut. (3) Fastening.

7.00 设备和备件的图纸、清单 Drawings and lists of equipment and spare parts

备品备件和易损件清单 Spare parts and Consumables list

产品编号 product number		型号 Model	订货合同编号 Order contract number	订货数量 order quantity	交货日期 delivery date	
		DF750-10 SD		1		
类别 category	名称 name		规格 specification		每台用量 Using number	交货周期 delivery cycle
W	阀室检修门密封条 valve room access door seal lining		内衬钢夹，EPDM， L=1730mm Steel clip, EPDM, L=1730mm		3	1W
S	阀室检修门方形把手 Valve Chamber Inspection Repair Door Square handle		L=130，塑胶 L=130, plastic		3	1W
W	人孔门密封条 Man hole Door Seal		EPDM，18x18，L=3.4m		2	1W
S	人孔门 T 形把手 Man hole door T-shaped handle		烧结板科技专用，M12，塑胶/嵌件 Sintering plate technology dedicated, M12, plastic/Insert		6	1W
S	快开式电磁阀 Fast open solenoid valve		40S，专用型 40S, special type		5	2W
S	电磁阀线圈 Solenoid Valve coil		40 系列通用，含衔铁 40 Series Universal, including armature		5	2W
W	电磁阀大膜片 solenoid valve Large diaphragm		40 系列通用，膜片组件 2 40 series general, diaphragm Assembly 2		5	2W
W	电磁阀小膜片 solenoid valve Small Diaphragm		40 系列通用，膜片组件 1 40 series general, diaphragm Assembly 1		5	2W
S	电磁阀消音器 solenoid Valve Silencer		40 系列通用，1/4” 40 Series Universal, 1/4 "		5	1W
S	电磁阀卡簧 solenoid Valve Spring 40 Series general,		40 系列通用，SUS304 40 Series Universal, SUS304		5	1W
S	电磁阀波纹垫片 Solenoid valve corrugated gasket		40 系列通用，SUS304		5	1W

S	电磁阀压缩弹簧 Solenoid valve compression Spring	40S 专用, SUS304 40S Special, SUS304	5	1W
S	差压取样头过滤棒 differential pressure sampling head filter rod	含 Φ6x1 软管段 containing Φ6x1 Hose Section	2	1W
S	过滤减压阀 Filter Pressure relief valve	1/2", LFR-1/2-D-7-MIDI	1	3W
S	分气箱 Gas box	铝合金组合式分气箱, 5 阀 aluminum alloy combined gas box, 5 Valve	1	3W
S	弹簧式安全阀 Spring type safety valve	R3/8 (DN10), 黄铜, 0.55MPa 开启 R3/8 (DN10), brass, 0.55MPa open	1	2W
S	烧结板过滤元件 sintering plate filter element	DF750, NT1, 尘气室安装 DF750, NT1, Dust Chamber installation	10	3W
W	烧结板过滤元件密封圈 Sintering plate filter element seal ring	DF 系列专用, EPDM DF Series Dedicated, EPDM	10	1W
S	烧结板过滤元件紧固件 Sintered plate filter element fastener	螺栓 M8x60/大垫片/定位套管/O 形圈 Bolt m8x60/large gasket/positioning casing/o ring	20	1W
W	入口挡板 Inlet bezel	DF190002, (立式_Ø200) DF190002, (vertical _Ø200)	1	2W

注 1: 类别 W-易损件, S-备件

注 2: 交货周期为大约的时间, W-周

Note 1: Category w-wearing parts, s-spare parts

NOTE 2: The delivery cycle is approximately the time, w-weeks

8.00 电路图/端子图 Circuit/Terminal Diagram

9.00 质量证明文件 Quality Certification Documents

插入此处或另见册。Insert here or see another book. _

10.00 OEM 部件的原始说明书 Original instructions for OEM components