
文件名称：用户手册

Type of document: user manual

文件编码:

Code of document:

版本: 2017 版

Edition: 2017

设备名称: PLC-小型上料系统

Product: PLC -Small Type loading System

设备型号: □

Model:

制造商: 常州戴格机械制造有限公司

地址: 常州市溧阳市中关村科技产业园上上路 118 号

电话: ☎+86519-8787 1858/8787 8700

传真: 📠 +86519-8777 1858

网址: <http://www.dega-changzhou.com>

Manufacturer: Changzhou DEGA Machinery Co., Ltd.

Address: No.118,Shangshang Road,Zhongguan Cun,Liyang City,Jiangsu Province

Tel: ☎+86519-87871858/8787 8700

Fax: 📠 +86519-87771858

[Http://www.dega-changzhou.com](http://www.dega-changzhou.com)

Sales hotline: +86519-87871858

第一部分：综合信息 SECTION 1 :GENERAL INFORMATION

1、概述 Introductions	5
2、质保 Warranty	5

第二部分：安全 SECTION 2: Safety

1、安全标识 Safety symbol.....	7
2、安全规程 General safety rules	7
3、安全装置 Safety devices	7
4、设备风险 Risks present on the machine.....	7
5、环境风险 Risks in the environment	7
6、停止使用 Ceased use.....	7

第三部分：设备结构特征 SECTION 3: Components features

1、设备标牌 Identification plate	9
-----------------------------------	---

第四部分：安装连接 SECTION 4: Installation

1、安装上料机 Assembly of loader.....	9
2、如何连接物料管 Connection material delivery pipes	9
3、如何连接真空管 Connection vacuum pipes	11
4、气动连接 Pneumatic connection.....	11
5、电气连接 Electric connection.....	11

第五部分：工作原理及使用操作说明 SECTION 5:Workingpricipe and operating instructions

1、工作原理 Principe of work.....	11
(1)控制面板 Control panel of the system.....	11
(2) 控制系统-PLC Control system— PLC.....	13
2、使用操作说明 Operating instructions.....	11
(1) 开机检查 Start-up check.....	13
(2) 开机程序 Start-up sequence	13
(3) 上料系统 Load system	13
A、上料系统 Load system	15
B、手动操作 Manual operate	15
C、物料接收器参数 Receiver set.....	15
D、泵组参数 Pump set.....	15

第六部分：设备故障原因及解除 SECTION 6: Troubles causes and cures

1、设备报警及解除 Alarms and solving.....	17
-----------------------------------	----

第七部分：设备维护 SECTION 7:Maintenance

1、维护 Maintenance.....17

2、清洁 Cleaning.....17

第一部分：综合信息 SECTION 1 :General information

1、概述 1. Introductions

本用户手册包括戴格机械制造有限公司生产的上料机相关的技术，安装，正确使用和维护的所有信息。

本手册没有对所有部件进行全面介绍，也没有对部件用途进行详细说明，但用户可在其中找到与设备的正确安装，安全使用和维护相关的所有有用信息。

用户可在遵守本手册的基础上，实现设备的正常操作和经济运转，获得较长的使用寿命。若不遵守用户手册中的规则，粗心大意，错误使用，戴格公司有权取消保修。设备到货时，请检查：

- 包装完好，设备无损坏；
- 供货符合订单明细；
- 无外观损伤。

若供货与订单不符或是存在外观损伤，请立即将问题细节通知货运代理和戴格公司或它的代理商。

This manual gives out all the information necessary for the installation, the good use and the regular maintenance of the Gravimetric Dosing Machine, manufactured by Changzhou DEGA Machinery Co.,Ltd. The content of this manual, is neither a thorough description of all the different components, nor a detailed description of its working. Anyway, the customer will find what it is usually needed to know, for a correct installation, a safe use and a good preservation of the system. The correct working, the life and the economy operation of the system depend, on the observance of all the given instructions. The lack of following such rules pointed out, in this manual may be the cause of the cancellation of the warranty by Changzhou DEGA Machinery Co.,Ltd. On receipt of the machine system, check that:

The package is not deteriorated to the point that some component might have been damaged;

The supply is up to the order specifications;

There are no visible damages.

In case of supply which is not up to the order or when there are visible outside damages, you have to give immediately all the possible details to the shipping agent and to Changzhou DEGA Machinery Co.,Ltd or its local agent.

2、质保

常州戴格机械制造有限公司的上料机保修期是自设备收货之日起1年。在质保期内，戴格机械制造有限公司承诺将在尽可能短的时间内消除由于器件及制造所造成的设备故障，以上承诺的附属事实是设备被用户按照本操作手册所列明的方法正确的安装及操作使用。在保修期内的故障部件将由卖方免费修理或更换，设备运输费用和卖方技术人员返修的费用将由卖方承担（易损件除外）。保修期内，除可直接由买方处理的简单缺陷外，卖方技术人员在买方工厂排除设备缺陷所涉及的人工费用由卖方承担。以上的卖方承诺未包括法律涉及的其他质量担保。最终由卖方一次性提供的工具和易损件不在保修范围内。设备生产过程中,卖方有

权采用材料,部件和加工工艺改变设备型号,状态和质量;在订单处理结束后,卖方仍有权出于技术改进的目的对设备进行修改。

擅自拆除设备配备的安全装置意味着取消卖方的保修和所需承担的责任。此外,设备中安装的非原装备件不在保修范围内。戴格公司不承担由于设备改变,更换或变动造成损坏的保修责任。


2. Warranty

Changzhou DEGA Machinery Co.,Ltd guarantees its own Weighing type central system warranty period is 1 year from received goods, If the normal running time with the device compared, In the overtime running state, the warranty period must be reduced accordingly. In the warranty period, Changzhou DEGA Machinery Co.,Ltd is committed to in the shortest possible time to eliminate because of equipment failure caused by device, the above committees attached facts according to the user manual methods of correct installation and operation. In warranty period, the failure spares repaired or change by seller, and bear the transportation costs and the round-trip costs of technicians (except wearing parts), In addition to simple defects by the buyer processing, The seller's technical personnel at the buyer's plant to fix the equipment defect involved costs borne by the seller, above the seller committed not include other quality of service related law. All tools and expendable materials eventually supplied by Seller, together with the machines are excluded from the warranty. In the production process, the seller has the right to use materials, components and process change types, status and quality, end the order form dispose, the seller still has the right to change the machine for the aim of technical improvement.

In addition, the warranty is no more valid if it is not original spare parts have been assembled on the machine. Changzhou DEGA Machinery Co.,Ltd declines any responsibility, with regard to damages caused to tampering, replacement or modifications to machine.

第二部分：安全

1、安全标识


 **注意：** 操作员事故预防规范


 **警告：** 有可能会损坏的设备和部件

 **预防：** 关于使用操作的进一步信息

SECTION 2: Safety

1. Safety symbol

 **ATTENTION:** accident prevention regulations for operator.

 **WARNING:** a possibility exists for damage to machine and/or its components.



PRECAUTIONS: further information regarding operation in progress.

2、安全规程

我们建议仔细阅读本用户手册特别是有关安全的部分，在执行有危险的操作时应小心谨慎进行。

设备制造商不负责由于不遵守安全规程所导致的损坏和事故，并且也不负责由于不正当的使用或非指定操作人员使用所造成的损坏。请注意本手册中的危险标志，它表明潜在危险的警告。

当对电气设备进行操作时，需要采取所有必须的防范措施来减少及避免火灾以及电击及人员受伤。在使用上料机之前，阅读并记住有关安全规则。在阅读之后，将手册妥善保存。

- (1) 严禁在可引起持续爆炸的充满爆炸物的环境下使用上料机；
- (2) 保持工作环境的清洁和秩序；
- (3) 开始工作前，对设备进行例行检查有无任何部件损毁；
- (4) 将设备交给非指定人员进行维修意味着，设备可能处于不安全和潜在的危险中。
- (5) 不要在设备工作时接触电气元件。
- (6) 任何检修，清洁，维护，改变和更换部件的工作必须在关机状态并且插头已和插座断开时进行。
- (7) 检查电力供应系统符合标准。
- (8) 确保设备安装位置所在房间的通风状态良好。
- (9) 设备安装位置所在房间的采光必须保证可安全进行设备的操作与维修。
- (10) 设备必须安装在温度范围 0 到 45°C，最大湿度 85%并且不会被雨，雪，冰雹及雾波及。
- (11) 在正常的使用情况下，震动将引起设备处于危险状态。
- (12) 设备设计时按照 ISO 3746 的标准减少了噪音，实际检测结果为低于 80dB。(罗茨风机除外)
- (13) 在生产过程中无有害物质，参照规则 EN 626-1.
- (14) 粉尘滤袋中的粉尘可能具有毒性，在处理时需考虑到这点。
- (15) 检查电力插座是否稳固及符合标准，插座须带有接地并自带保护开关或其他保护以避免过载。
- (16) 任何电线延长部分均须配有带地线的插头或插座。
- (17) 不允许用直接将插头拔出的办法关机，同时不允许用拉电线的方法将插座上的插头拔出。
- (18) 定期检查电线的情况，如有破损须及时由指定人员更换。

-
- (19) 仅使用经检验合格的电源延长线。
- (20) 避免电线接触高温物体及尖锐物品，避免电线扭结。
- (21) 在特定的高温环境下，电机可能会由于环境温度过高或长时间工作而过热。在这种情况下，请等电机降温后再开始工作。
- (22) 设备放置之前,请检查:
- 地面是否平整
 - 空间是否足够用于设备维护
 - 是否被置于存在倾覆危险的搬运区

2. General safety rules

We advise you to read carefully this manual and especially the safety rules, and to be careful to those operations which are dangerous.

The manufacturer declines any responsibility for the failure in observing the safety and accident-preventing, rules described herein. The manufacturer declines also any responsibility, for damages caused by an improper use, or by unauthorized modifications.

Pay attention to the danger sign in this manual; it precedes the warning of potential danger.

When using electric operated devices, it is necessary to take all the necessary precautions to reduce the risk of fire, of strikes with lightning and injuries to people or things. Before using the machine, read and remember the following safety rules. After reading, keep this manual with care.

1. It is forbidden to use the machine inside stured environments with the consequent risk of explosion.
- 2.Keep the working area clean and in order.
3. Before starting to work, check the regular working of the machine and that there are no damaged or broken parts.
- 4.The equipment repaired by non-designnated person means that the equipment may be unsafe and potentially dangerous.
5. Do not touch electric parts when the machine is running.
6. Any kind of inspection, check-out, cleaning, maintenance, change or replacement of components, must be carried out when the pump is off and the plug is disconnected from the power socket.
7. Check that the power feeding machine is up to the standards.
8. You have to assure a good aeration of the rooms where the machine is installed.
9. The lighting of the rooms, where the machine is installed, must guarantee the safe carrying out of the control and maintenance operations.
10. The machine must be employed in rooms having a room temperature between 0 and 45° C, max. humidity 85% and sheltered from rain, hail, fog, etc.
11. During normal operational conditions, the machine is not subject to vibrations which could cause danger situations.
12. The machine has been designed in such a way to reduce the noise to the source. Standard

ISO 3746 is observed since the noise is below 80 dB.

13. No harmful substances in the process of production ,refer to regular EN626-1

14.Powder dust in the filter bag may be toxic and should be taken into account in processing.

15. Check that the power socket is suitable and it is up to the standards, with built-in automatic protection switch or other protections against overloads and with earth wire.

16. Any electric cable extension must have plugs/sockets and earth wire as foreseen by the rules.

17.Never stop the system by removing the plug from the power socket and never pull the cable to remove the plug from the socket.

18. Check periodically the conditions of the cable. Replace it if it is damaged. This operation must be carried out by skilled and authorized personnel.

19. Use only approved and marked extension cables.

20. Protect the cable from high temperatures, lubricants and sharp edges; avoid its twisting and knotting.

21.Inside particular hot environments, the blower motor temperature may reach temperatures caused by the environment itself and by the prolonged working. Therefore, wait for the motor and the blower cooling down before starting any intervention.

22.Before positioning the machine, check that:

- The floor is flat.
- The space is wide enough to allow maintenance to be carried out.
- It has not been positioned in a transit zone with the danger of having its components overturned.

3、设备风险

其余关于设备的风险包括:

- 金属角及边缘引起的磕碰伤风险.
- 所上物料引起的静电
- 如防护门被打开后所引起的金属锋利边缘的割伤.
- 从成型设备上将本设备取下时或操作员摔倒时引起的碰撞风险。

Risks present on the machine

The risks found on the machine are:

- Risks of bruises against metal corners and edges.
- Risks of statically electricity present in the materials to be batched.
- Risks due to cuts or shearing if the fix guards are removed .
- Risks of bruises to lower limbs should the operator fail to catch something or during transport or disassembly of the system from the press

4、环境风险

如将本设备与其它设备一起使用所产生的更多风险，将由使用者根据法律要求负责避免相应的风险。

Risks in the environment

Should the machine be used in combination with others, so adding further risks, It is the user's responsibility to eliminate such risks by keeping up to the laws in force.

5、停止使用

当使用者停止使用本设备时，我们推荐将电源线断开，切断压缩空气供应，拆掉压缩空气管路。

当设备需要被拆除废弃时，请根据当地法律要求对废物进行相应处理。

Ceased use

When you decide not to use the machine anymore, we recommend you, to make it standing by pulling the feeding cable out of the net.

When the equipment needs to be dismantled, please deal with the waste according to the local legal requirements.

第三部分：设备结构特征 SECTION 3: Components features

设备标牌

显示了标牌和在设备上的相对位置。在客户询问设备信息和订购备件时必须提供标牌上标明的型号，序列号和生产年份。

- A. 制造商
- B. 设备名称
- C. 电压
- D. 功率
- E. 序列号
- F. 售后电话

Identification plate

Shows on the identification plate and the relevant position on the machine. The model, the serial number and the year of construction marked on the plate, have to be given each time you ask for information or you order spare parts.

- A--Manufacture
- B--Name of the machine
- C--Voltage
- D--Power
- E--Serial number
- F--Service telephone number

设备的其他标牌 Other Identification plate

- ① “电压” 标牌

② “当设备工作时不要打开” 标牌

③ “安装、调试、维护和清洁必须由有经验的操作员/叉车司机进行” 标牌

①Plate “VOLTAGE INDICATION”

②Plate “DON’T OPEN WITH THE MACHINE OPERATION”

③Plate “INSTALLATION, COMMISSIONING, MAINTENANCE AND CLEANING MUST BE CARRIED OUT BY SKILLED OPERATORS/FORKLIFT DRIVER”

第四部分：安装连接

注意：设备应安装在平稳的地面或牢固的平台上，否则会影响设备的性能。

SECTION 4: INSTALLATION

NOTE: THE MACHINE MUST BE INSTALLED ON THE STEADY GROUND OR INSTALLED ON THE SOLID PLATFORM, OTHERWISE IT WILL AFFECT THE PERFORMANCE OF THE MACHINE.

1、安装上料机

根据客户需求可安装 1 到 6 台物料接收器。

将物料接收器固定在料斗上。

1.Installation of loader

According to the customer’s requirements you can choose to install 1-6 sets material receivers

To position the feeder on the hopper positioned on the gravimetric structure

2、如何连接物料管 Connection material delivery pipes(T.M.)

1) 连接物料接收器(1-2-3-4-5-6)的物料管 “M”，将物料管与吸料探头连接并插入物料容器中。

To connect the material pipe “M” of the cyclone (1-2-3-4-5-6). Then insert the material pipe in the feeding nozzle and position in the material container.

3、如何连接真空管 (T.V.)Connection vacuum pipes(T.V.)

1)连接真空管 “V” (1-2-3-4-5-6),如图 4-1 1) To connect the vacuum pipe “V” (1-2-3-4-5-6)

Fig. 4-2 then connect it to the structure derivation Fig. 4-1

2) 连接真空管到中央集尘器和泵组。

At this point connect the vacuum pipe FT to the central ground dust. collector and vacuum pump.

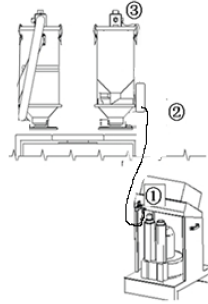


图 4-1

4、气动连接 Pneumatic connection

1) 连接压缩空气管路到压力调节阀,使用 $\varnothing 6\text{mm}$ 气管,将气管插入压力调节开关的电磁阀
PUMP

1) TO CONNECT THE COMPRESSED AIR LINE TO THE REGULATOR OF PRESSURE "1"
FIG. 4-4, USING SOME $\varnothing 6\text{MM}$ PIPE, TO INSERT IT IN THE

物料接收器 Material RECEIVER

1) 将 $\varnothing 6\text{mm}$ 气管插入物料接收器上的电磁阀

TO INSERT 6 MM PIPE, THAT ARRIVES TO THE SOLENOID-VALVE "2" TO THE
SOLENOID-VALVES "3" POSITIONED ON CYCLONES.

5、电气连接

由有资质的电工进行此项操作.设备标配工作于 380V-N 50-60 Hz, 参见设备标牌上列明的
电力消耗和电压。5 米长的电源线用于与电网连接, 检查下列事项:

- 电网中的电压和频率相符
- 地线已连接正常
- 最大供电电压变化值不超过 $\pm 10\%$.
- 最大频率变化值不超过 $\pm 2\%$.
- 防止电击过载 .
- 安装安全装置(如漏电保护器).

5. Electric connection

HAVE THIS OPERATION CARRIED OUT BY A QUALIFIED "ELECTRIC
OPERATOR/MAINTENANCE MAN".

THE MACHINE STANDARD WORKS WITH 380V-N 50-60 HZ POWER. SEE WHAT
POINTED OUT ON THE IDENTIFICATION PLATE FOR THE VOLTAGE AND THE MAX.
POWER ABSORPTION. THE 5 MM POWER CABLE IS SUED TO CONNECTION TO THE
NETWORK. KEEP UP TO THE FOLLOWING PRECAUTIONS, FOR THE ELECTRIC
CONNECTION TO THE NET:

- CHECK CORRECTNESS OF THE NET VOLTAGE AND FREQUENCY.
- MAKE SURE THAT THE EARTH PLANT IS IN PERFECT WORKING ORDER.
- MAX. NET POWER VARIATION $\pm 10\%$.
- MAX. NET FREQUENCY VARIATION $\pm 2\%$.
- PROTECT THE FEEDING LINE FROM OVER-VOLTAGES (I.E. ATMOSPHERIC
DISCHARGES).

第五部分：使用操作说明 Operating instructions

1、使用操作说明

(1) 开机检查

- ※ 检查设备不同部件的连接是否正确，
- ※ 检查所有电线，压缩空气是否连接正确；
- ※ 检查气动活塞压缩空气连接是否正确；
- ※ 检查上料机已经动作并且物料已经在料斗中。

(1) Start-up check

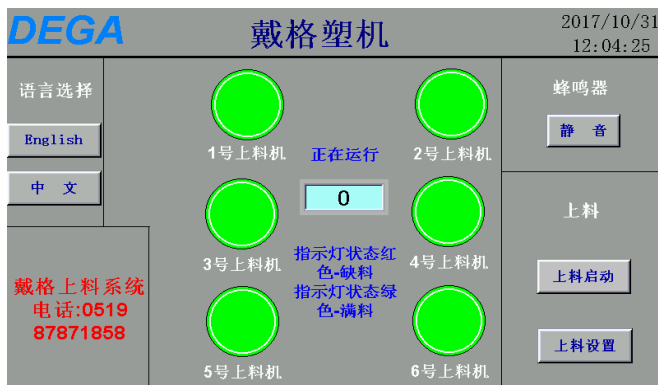
- ※ The connection between the various parts that compose the system.
- ※ All the cables, all compressed air's pipes do not fit to the weighing hopper.
- ※ The Compressed air for the charging valve is connected.
- ※ The charging system is turned on and has loaded the material.

(2) 开机程序 Start-up sequence

- 1) 将选择开关 SA1 打开至"ON" Turn the selector switch SA1 to ON position.

A、上料系统，图 5-01

A. Feeding System, As picture showed in 5-01



5-01

- 1) 进入主界面，点击菜单栏‘上料设置’，进入〈上料系统〉界面。图 5-02

① --状态指示灯

②--菜单键

③--时间/日期

④--蜂鸣器（报警）关闭键

⑤--报警复位键

⑥--上料系统启动/停止键

⑦-- 接收器编号：启动上料系统后，当前正在工作的物料接收器编号。

- 1) Enter into the main interface. click on ‘Loading Setting’ button, enter into 〈Loading system〉 interface.(Fig.5-02)

①-Status indicator

- ②--Main menu
- ③--Date/Time
- ④--Buzzer(Alarm) off Button
- ⑤--Alarm Reset Button
- ⑥-- Feeding System start and stop button
- ⑦-- Material receiver No.:When the feeding system start working,it will show the No of the material receiver which is working.



图 5-02

图 5-03

B、手动操作 Manual operation

注释：手动测试设备各个动作是否正常。

- 1) 点击〈手动操作〉界面（图 5-02）；
- 2) 点击‘手动开关’键，界面，（图 5-03）
- 3) 依次点击各个按键,按键按下会闪动显示一次，相应部位会有反馈动作。
- 4) 完成测试后再次点击‘手动开关’键。

Note: It is to test every operate is normal or not.

- 1) Enter into <load system> (Fig.5-25)
- 2) Click ‘Manu ON/OFF’ button, then enter into <Manual Operate> interface, (Fig.5-26)。
- 3) Click every button in turn, when click the button will be displayed once, corresponding part will have feedback action
- 4) Click ‘Manu ON/OFF’ button again after test.

C、物料接收器参数 Material receiver parameter

- 1) 进入〈上料系统〉界面。
- 2) 点击菜单栏‘接收器设置’键，将进入<接收器参数>界面，如图 5-04.

上料时间：物料接收器每次上料的时长。

管路清洁：上料完成后管路清洁阀打开的时长。

反吹周期：物料接收器累计上料次数。

反吹次数：反吹阀开/关循环一次的次数。

卸料时间：管路清洁完成后，接收器排料的时长

报警上限：接收器连续出现缺料报警的最大次数（到达报警上限后，接收器将自动退出运行）

反吹时间：反吹阀打开的时间。

反吹间隔：反吹阀关闭的时间。

1) Enter into load system, click ‘Receiver Set’ button , enter into < Receiver Parameter> interface, Fig.5-04

Feeding : the time length of receiver load every times;

Pipe clear time: when finish load material the pipe clear valve open time length.

Cleaning cycle: receiver accumulative feeding times.

Clear times: clear valve on/off cycle times

Unload time: after pipe line cleaning, the time length of receiver discharge.

Alarm limit: the max times of receiver present alarm continuously. (after reach alarm top limit, the receiver will automatic exit running)

Cleaning time: when receiver clear mesh the cycle time length of clear valve open and close.



	上料时间	管路清洁	反吹周期	反吹次数	卸料时间	报警上限	反吹时间	反吹间隔
1#	0	0	0	0	0	0	0	0
2#	0	0	0	0	0	0	0	0
3#	0	0	0	0	0	0	0	0
4#	0	0	0	0	0	0	0	0
5#	0	0	0	0	0	0	0	0
6#	0	0	0	0	0	0	0	0

图 5-04



泵运行方式	连续	
泵的保养时间	0	H
泵已运行时长	0	H
集尘器清洁周期	0	T
已上料上料次数累计	0	T
集尘器清洁次数设定	0	T
集尘器清洁开启时间	0	S
集尘器清洁关闭时间	0	S
等待时间	0.0	S

图 5-05

D、泵组参数 PUMP PARAMETER

1) 进〈上料系统〉界面。

2) 点击菜单栏‘泵组设置’键，将进入<泵组参数>界面，如图 5-05

泵的运行方式：连续---只要系统处于开机状态，真空泵就处于运行状态。

间断--仅在物料接收器需要上料时真空泵才会运行（不适用 5.5KW 以上的真空泵）

泵保养时间：风机连续工作达到此时间后需要保养维护。

已运行时长：在一个保养周期内，真空泵已运行的累计时间，保养后手动复位，数据会自动清零。

三向阀延迟：系统由停止或暂停状态转换为运行状态后，系统预抽真空的时间。

集尘器清洁周期：系统内所有物料接收器上料的累计次数。

集尘器清洁次数:集尘器在执行清洁时，气缸或反吹阀动作的次数。

集尘器打开时间:集尘器执行清洁时，阀门打开的时间。

集尘器关闭时间: 集尘器执行清洁时，阀门关闭的时间。

1) Enter into load system,

2) click ‘Pump Setting’ button , enter into < Pump Set> interface, Fig.5-05

Pump run mode: CONT—As long as the system is working, the vacuum pump is in running state.

INTER—Only run in material receiver need feeding.(Not suitable for more than 5.5kw pump

Maintenance time: pump continue run to reach this time need to maintenance.

Pump run time: In a maintenance cycle, the cumulative time of vacuum pump has been running, manual reset after maintenance, the data will automatic clear.

3 Way valve delay: system change to running state after stop or suspend,

Duct clear cycle: All the material receiver feeding accumulated times.

Duct clear times : When the dust is clearing, air cylinder or back-flushing valve moving times.

Duct clear time ON: When the dust is clearing, the valve opening time.

Duct clear time OFF: When the dust is clearing, the valve closing time.

第六部分：设备故障原因及解除 SECTION 6: Troubles causes and cures



1、设备报警及解除 Alarms and solving

如设备出现故障请与 DEGA 技术服务联系. If you have some troubles,please contact with DEGA technical service department.

报警 ALARMS	解除方法 SOLVING Method
气压低 Low air pressure	检查真空管路连接是否正确，确保压缩空气大于 4bar Check whether the vacuum pipeline connected properly, make sure the compressed air pressure on the circuit is bigger than 4bar.
集尘器滤袋阻塞 Filter bag clogging	清洁或更换滤袋 检查并更换电接点压差表 Clear the filter bag Check and replace the electric contact pressure differential gage.
泵保养时间到达 Pump maintenance time	对真空泵进行保养后，手动复位 Maintenance the vacuum pump, then manual

reach	
##号接收器上料异常 Receiver loading unusual	检查料仓是否有料 检查物料及真空管路是否正常 检查并调整或更换物料感应磁力开关 Check if the hopper have materials Check if the materials and vacuum pipe is are unusual Check and adjust or replace material sensor magnetic switch
出风高温(罗茨风机无此功能) Air out higher of pump (Roots blower no this function)	检查并清洁或更换滤袋 检查并调整吸料探头或配比阀 Check and clear or replace filter bag Check and adjust the suction probe or the ratio of valve
气压低 (设备停机) Low pressure (Machine will stop)	检查压缩空气调压阀及管路,在故障复位界面按复位键解除报警 Check the compressed air pressure regulating valve and pipes, press reset button to solving the alarm in alarm reset interface
##号接收器缺料停机 (此物料接收器将退出运行) Receiver short material and stopped (The receiver will exit running)	手动复位 Manual reset
泵过载 Pump overload	检查真空泵运转是否异常 检查真空泵电源线及控制电气元件是否正常 Check if the vacuum pump running unusual Check whether the vacuum pump power cord and the control electrical components are normal.

第七部分：设备维护 SECTION 7: Maintenance

1、维护

开始进行维护之前，我们推荐您仔细阅读本用户手册中关于如何进行维护的建议。(仅限于有经验的人员进行相关操作)

-
- 1-所有维护工作必须在停机并将电源断开后进行，
 - 2-在维护操作中，需遵守本手册中的指示以避免对设备或人员造成伤害。

1. Maintenance

Before proceeding with any kind of intervention, regarding the use and maintenance of the machine, we recommend you to read carefully the instructions contained in this manual and the advice pointed out on the machine. Only skilled and qualified people with these operations).

- 1) All the maintenance operations have to be carried out, when the machine is off, the plug is disconnected from the power feeding line.
- 2) During maintenance operations, you will have to keep-up to indications pointed out in this manual in order to avoid damages to people or things.

维护完毕后，设备再次投入使用前必须检查：

- 1-更换的部件和/或使用的维护工具已被清理出现场。
- 2-所有安全保护装置工作正常。

Once the maintenance operations, have been carried out before setting the machine on again:

- 1) The pieces which have been replaced and/or the equipment used for the maintenance operations have been removed away the machine.
- 2) All the safety devices are efficient.

2、清洁 Cleaning

清洁设备需必须使搅拌器在停止状态,要使用类似吸料机的吸尘装置.所有对于设备的清洁工作必须在设备关机,插头被拔掉的情况下进行。

When cleaning the machine, the mixer must be in a stopped state. to use the dust collecting attachment similar to a aspirator.

清洁真空泵的滤袋装置 Cleaning of the safety filters of the vacuum-maxing pump

- 1-将气管连接去掉.
- 2-用吸尘器清洁管路附近的残留塑料原料.
- 3-将消音器去掉，将连接去掉.
- 4-用吸尘器 清洁附近的残留塑料原料.
- 5-将网络与消音器安装回原位
- 6-将气管连接装回原位.
- 1- Remove the pipe union
- 2- Vacuum clean the possible plastic and dust tailings which fouled on the gauzes placed underneath the pipe union.
- 3- Remove the silencer and remove the gauzes placed in the position pointed out
- 4- Vacuum clear to clean the nearby residual plastic material
- 5-Put the network and muffler back in place。
- 6-Put the air pipe connection back in place

检查和清洁滤袋（可选）

客户需根据堵塞程度和物料含粉尘的状况来确定定期检查的时间间隔。

- 1- 将固定顶盖的两个紧锁打开，将顶盖的从物料接收装置上拆掉。
- 2-然后对滤袋进行检查和清洁。
- 3-如滤袋状态良好，将顶盖装回原位并紧锁。
- 4-对其他称重组重复以上操作。

Filter check-out and cleaning (optional)

The customer will have to carry out this check-out at intervals which can fixed each time, according to the working hours and to how dusty the material to be treated is.

- 1) Remove cap from the cylinder, Act on the two lever-locks, placed on its sides, to release the cap.
- 2) In this way you may check the filter and clean it.
- 3) Should the filter be in a good condition, set the cap back and lock it with the suitable locks.
- 4) Repeat this operation for the others weighing group.

换料时对设备的清洁 **Cleaning the machine when change materials**

如需对设备进行彻底清洁以避免换料时不同物料混合造成的污染，则必须清洁到位。

When you want to carry out a careful cleaning in order to avoid the contamination of a batch of a different material, you must clean it completely

注意：

由于使用非原厂件造成的损失，制造商不担负责任。备件更换需要有经验的人员进行操作，或者请与 DEGA 的技术服务人员联系。

NOTE: DEGA refuse bear the losses caused by using the non-original spare parts. Replace spare parts need the experienced people to operate, or contact the technician of DEGA.