



Operating Instructions

# **PowerFill**

Automatic Granulate Conveyor  
for UES systems with touch screen control



## Contents

<b>Introduction</b>	<b>4</b>
<b>Safety instructions</b>	<b>5</b>
<i>Safety measures with respect to the adhesive</i>	5
<i>Safety measures with respect to the production machine</i>	5
<i>Safety Symbols</i>	6
<b>Functional description</b>	<b>7</b>
<i>Version</i>	7
<i>Parts list</i>	7
<b>Compressed air connection</b>	<b>7</b>
<b>Technical data</b>	<b>7</b>
<b>Installation</b>	<b>8</b>
<b>Filling prior to initial start-up</b>	<b>10</b>
<b>Delivery time/Switch-on and Switch-off delay</b>	<b>11</b>
<b>Testing the equipment</b>	<b>12</b>
<b>Circuit diagram</b>	<b>13</b>
<b>Maintenance</b>	<b>15</b>
<b>Malfunctions</b>	<b>15</b>
<b>Spare parts</b>	<b>16</b>
<b>Recycling</b>	<b>16</b>

## Introduction

With the PowerFill granulate conveyor

- downtimes due to an empty tank unit,
- significant temperature fluctuations of the glue due to late refilling,
- risks of injury when filling the system,
- contamination of the adhesive, as the tank remains closed

remain a thing of the past.

UES hot glue systems and accessories satisfy the highest standards in terms of quality, industrial and production safety, as well as maintenance and user friendliness.

The combination of state-of-the-art control and regulation technology with convenient all-round equipment provides you with the greatest possible benefits. The extremely compact design and modular extension option ensure variable use for a wide range of applications.

Complying with these operating instructions will make long-term and unlimited use of the device possible.

Besides a complete range of standard applications for bonding technology with tank systems, hose and applicator head systems, we offer individual solutions and system components for special applications in various industrial sectors.

With a UES adhesive application system, hot melts are processed as part of an adhesive application, meaning that – depending on the application – the adhesive systems are incorporated into production or packaging machines and are therefore part of the systems.

During the operation of hot melt adhesive application systems, the adhesive is processed at high temperatures and under a high material pressure. For this reason, safety precautions are to be taken during installation, operation and maintenance.

These safety precautions are marked with safety symbols in the description of how to handle the system and described in greater detail if necessary.

The safety precautions described here refer exclusively to the handling of the adhesive system.

Before commissioning, the operating instructions are to be read in full in order to ensure safety and proper operation. The device owner or operator is responsible for compliance with the safety regulations.

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Furthermore, the manufacturer does not provide any guarantee that the contents of this manual are accurate.

Subject to change without notice.

**Your UES AG**

## Safety instructions

The owner of the plant is responsible for the distribution of and adherence to the safety instructions. Read these carefully before putting the device into operation for the first time and comply with them during your daily work with it.



**Caution!**  
**Disconnect the mains plug before carrying out any repair or maintenance work!**

Installation and maintenance work may only be performed by trained personnel. The only individuals who are considered suitable are those who are qualified by professional training and experience in handling such or similar devices, are acquainted with the relevant safety and accident prevention regulations and can therefore identify and avoid hazards.

In all cases, work on the adhesive application system may only be carried out with the power supply switched off and the compressed air disconnected (depressurise the system).

The system must not be operated without the appropriate covers and safety panels. Be careful of uncovered moving and rotating parts such as motor and pump shafts, lifting and pivoting mechanisms!

### Caution!

**Do not use or convert the system for any purpose other than that for which it is intended!**

Many uncovered parts of the applicator device, the hot glue hoses and application valves become hot during operation. Hot and pressurised adhesive may cause severe skin burns. Therefore, always wear protective clothing, gloves and safety goggles when working on the system, such as when filling the melting tank or connecting and installing the hoses and valves. Some adhesives produce toxic fumes that have to be extracted. The hot melt adhesive application equipment may not be operated under the following circumstances:

- near volatile substances or explosive materials and gases
- without appropriate safety devices
- at ambient temperatures of less than 5 °C or more than 45 °C

### Safety measures with respect to the adhesive

When working with molten hot glue, always be extremely careful! These materials solidify very quickly, even at high temperatures, so they can still be very hot even in their solid state and can result in burns when brought into contact with the skin.

The safety precautions of the adhesive manufacturer are to be observed. These can be found on the data sheet of the adhesive. Comply with the processing temperatures recommended by the glue manufacturer!



When working with hot melt, wear gloves, safety goggles and long sleeves in order to prevent burns. In the case of a burn, do not attempt to remove the glue from a person's skin; instead, hold the affected area under cold water until the glue has cooled and then contact a doctor.

### Safety measures with respect to the production machine

For the safety instructions when handling the production or packaging machine, please refer to the documentation supplied with these devices.

During installation and maintenance work, the safety instructions for the parent machine in which the adhesive application system is installed must be observed.

## Safety Symbols

The safety symbols shown below indicate operations where increased is called for. The safety procedures should be followed to at all times.



**Attention, general safety instructions:**

**Regards to safety instructions when working with glues and other machines. Additional (special) safety instructions can follow.**



**Caution hot surface:**

**Danger of burning. Appliance parts have a high operating temperature.**



**Caution high voltage:**

**This type of work is only to be carried out by qualified personnel.**



**Caution hand injury:**

**Risk of entrapment if incautiously operated.**



**Caution, possible danger of uncontrolled release/leakage of hot liquids!**



**Wear safety gloves!**



**Use safety glasses!**



**Disconnect power supplier!**



**Use face shield!**



**Disconnect power plug before opening!**



**Wear protective clothing!**

## Functional description

The automatic PowerFill granulate conveyor is mounted on the tank opening of the hot melt applicator instead of the tank lid. The filling level control detects when glue needs to be refilled and switches on the PowerFill. The lance sucks the granulate out of the storage tank. At the same time, a built-in vibrator breaks up any clumps. If the specified filling quantity has been reached, the conveyor switches off automatically.

The UES PowerFill works with compressed air and is virtually maintenance-free.

## Version

This UES PowerFill is available for the different hot melt systems:

- from *perfectMelt* 4 kg / 8 kg to MaxMelt

## Parts list

The UES PowerFill consists of the following parts:

- Funnel with air filter mounted on an adapter plate
- Suction hose (flexible, 3 m), with compressed air line, special lengths possible
- Lance
- Mounting material
- Solenoid valve, including all connections, system-dependent



## Optional

- Granulate storage tank, Art. no. 135151
- Base frame for storage container, rollable, Art. no. 139041

## Compressed air connection

- Compressed air (6 bar, dry), independent of the compressed air supply of the hot melt system

## Technical data

Delivery rate	3.5 kg/min – 5.0 kg/min
Delivery distance (vertical)	3 m
Compressed air connection	6 bar – 10 bar
Weight	3 kg

The delivery rate depends on the conveyed material and the length of the hose, among other things!

## Installation



**Caution!**  
Please carry out the following steps only on a cold system!

Example illustration of an exterior view



**Attach the delivery hose to the filler neck using the hose clamp.**

**Connect the compressed air pipe of the delivery hose  
to the outlet of the solenoid valve (PowerFill – Out)**

**Illustration subject to technical changes**



**Solenoid valve**

Insert the lance at the other end of the delivery hose deep into the granules. In order to ensure that this functions perfectly, make sure that there is plenty of freedom of movement. In this way the vibrator of the lance can crush any potential clumps.



**Wrong: The lance is positioned on top of the granules**



**Correct: The lance is pressed deeply into the granules**

### Filling prior to initial start-up



Loosen the fixing screws and open the funnel.



Fill the cold, empty tank with granules.

## Delivery time/Switch-on and Switch-off delay

The switching point is delayed and extended by a main board so that the delivery impulse does not switch on and off abruptly when the signals are transmitted.

In order to change these delays, please proceed as follows:

In the adjustment section of your hot melt system you have to select the "Options" control panel. There the PowerFill (filling level) can be switched to "ON" or "OFF".

Furthermore, the minimum and maximum filling time must also be adapted to your conditions.



The filling time is set at the factory to a minimum of 2 sec and a maximum of 12 sec.

### **Caution!**

In addition, a pump delay time of 35 min is set at the factory, which must be maintained without fail so that any adhesive which is still stuck in the filling level monitoring system during the heating phase is removed!

Otherwise the correct functioning of the PowerFill cannot be guaranteed!

## **Testing the equipment**

In order to check the filling method that has been configured, first remove the plug of the solenoid valve after filling has been completed in order to ensure that the PowerFill cannot restart. Then remove the air filter and shine a torch into the tank if necessary.

It is not possible to adjust the filling level via the filling level control system.

## Circuit diagram



## Maintenance

The air filter must be cleaned regularly. How often cleaning has to be carried out depends on the amount of dust in your conveyed material. In order to ensure correct functioning, it is important that the air can escape through the air filter.

Loosen the cover on the top of the device and remove the filter. Blow out the filter or replace it with a new one.

## Malfunctions

Problem:	Possible causes
Conveyor not working	<ul style="list-style-type: none"> <li>• PowerFill activated? → ON</li> <li>• Compressed air sufficient? → Check</li> <li>• Filter dirty? → Clean</li> <li>• Adhesive lumpy? → Dissolve clumps</li> </ul>



Article number 135113 - Air filter

If a fault (alarm) occurs during operation of the PowerFill, this alarm must be acknowledged via the "Filling Level" control panel in the main view of the respective hot melt system.

Possible causes of an alarm are insufficient granulate quantities or a lack of compressed air.

## Spare parts

Art. no.	Description
101145	Solenoid valve plug with LED
100245	Solenoid valve, 24 VDC
100256	Silencer for the solenoid valve
135100	Funnel
102496	K1 Relay
135113	Air filter
131948	Suction hose
100361	Pneumatic hose
135140	Lance
135151	PowerFill 120 l storage tank
139041	Chassis for storage tank
199341	Evaluator

Please contact us for other spare parts or alternative components.

## Recycling

Proper disposal of old electrical devices avoids contamination of the environment and enables valuable materials to be recycled. The main concern is the reduction of harmful substances in electronic products as well as the prevention and reduction of electronic waste through reuse.

According to the WEEE and the ElektroG, manufacturers and importers of electrical equipment are not required to take their marketed devices back from consumers or to recycle the devices after the end of the equipment's life cycle.

However, we, the UES AG, are glad to offer you, as a customer, the service of taking back your old unit.

If the equipment you had acquired from us is irreparably damaged, please feel free to send this to us; we will then recycle it professionally.

For the environment

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