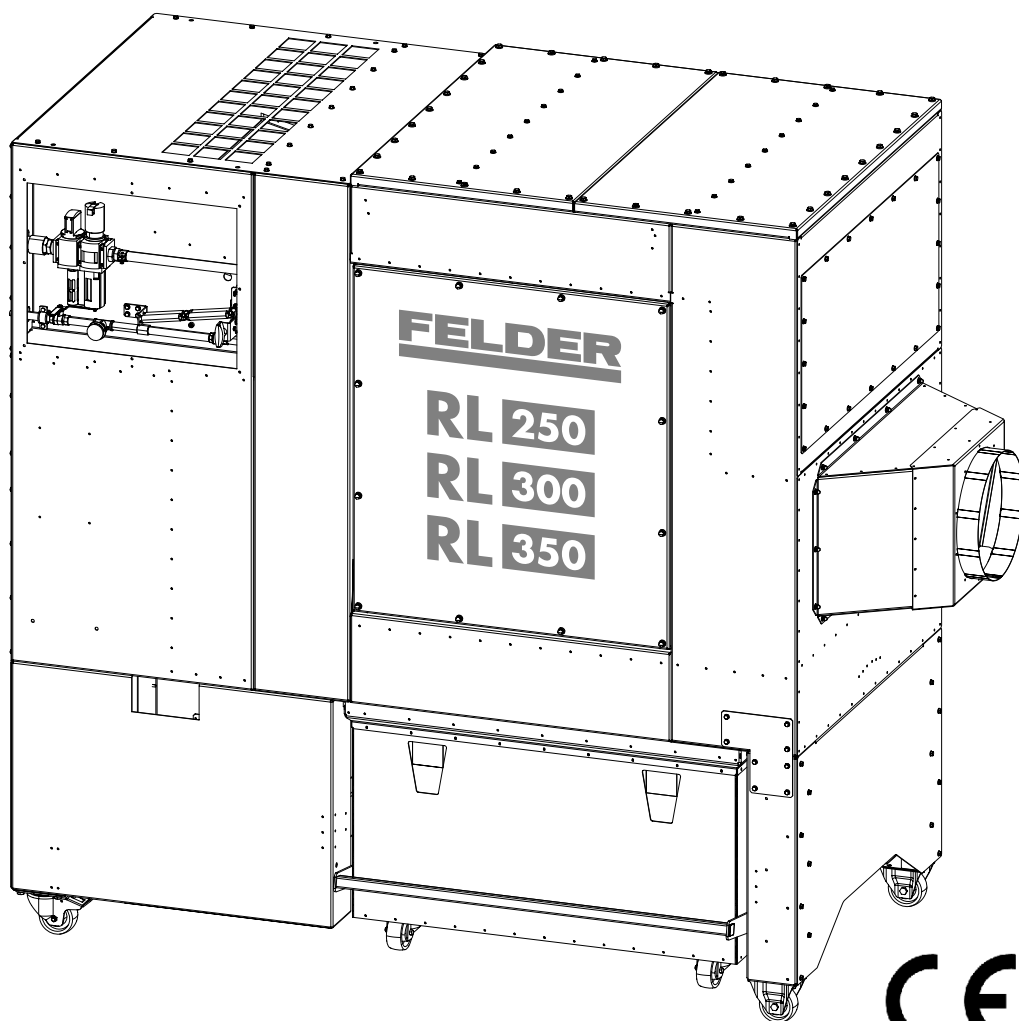




# User Manual

Translation

## Dust Extractor RL 250/300/350



Keep this manual handy and in good condition for continual reference!

**Note: Year of construction**

The machine number of this machine will be printed on the cover sheet of this operating manual. The final two digits of the machine number show the year of construction of this machine. e.g. XXX.XX.XXX.18 -> Year of manufacture 2018

**Attention! Risk of material damage!**

The machine must be inspected immediately upon arrival. If the machine has been damaged during transport, or if any parts are missing, a written record of the problems must be submitted to the forwarding agent and a damage report compiled. Also be sure to notify your supplier immediately.



For the safety of all personnel, it is necessary to study this manual thoroughly before assembly and operation. This manual must be kept in good condition and should be considered as part of the machine. Furthermore, the manual must be kept to hand and within the vicinity of the machine so that it is accessible to operators when using, maintaining or repairing the machine.

**Important Notices!**

Please note, that depending on the model of the machine, not all described functions are present, or additional functions and buttons are available (e.g. machines with special functions).

**FELDER | A product of the FELDER GROUP**

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*Table of contents*

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## Contents

<b>1 General.....</b>	<b>5</b>
1.1 Symbol legend.....	5
1.2 Information about the manual .....	5
1.3 Liability and warranty .....	6
1.4 Copyright.....	6
1.5 Warranty notice.....	6
1.6 Spare parts .....	6
1.7 Disposal.....	7
1.8 Responsibilities of the operator.....	7
1.9 Personnel requirements.....	7
<b>2 Safety .....</b>	<b>8</b>
2.1 Work safety .....	8
2.2 Manual contents .....	8
2.3 Making changes and modifications to the machine.....	8
2.4 Intended use.....	9
2.5 Location site requirements.....	9
2.6 Personal protective equipment.....	10
2.7 Other risks .....	10
2.8 Machine hazards.....	10
2.9 Fire hazards .....	11
2.10 Noise emission .....	11
2.11 Safety cover .....	11
2.12 Procedure in case of fire (Emergencies) .....	12
2.13 Explosion pressure proofness .....	12
<b>3 Declaration of Conformity .....</b>	<b>13</b>
<b>4 Technical specifications.....</b>	<b>14</b>
4.1 Dimensions and weight.....	14
4.1.2 Important information .....	14
4.2 Performance diagram .....	15
4.3 Data plate.....	16
4.4 Noise emission .....	16
<b>5 Transport, packaging and storage .....</b>	<b>18</b>
5.1 Safety instructions .....	18
5.2 Transport.....	18
5.3 Transport inspection.....	18
5.4 Packaging .....	19
5.5 Storage.....	19

**Table of contents**

<b>6 Setup and installation .....</b>	<b>20</b>
6.1 Safety instructions .....	20
6.1.1 Setup.....	20
6.2 Assembly .....	21
6.2.1 Basic extractor .....	21
6.2.2 Chip container (Standardaus equipment).....	22
6.2.3 Mirror-inverted operation.....	22
6.2.4 Collector casters (Optional equipment: Rotary feeder) .....	23
6.2.5 Vacuum connector assembly.....	23
6.3 Fire prevention and extinguisher .....	24
6.3.1 Fire extinguisher: Water .....	24
6.3.2 Fire extinguisher: Extinguisher .....	25
6.4 Floor space requirement.....	25
6.5 Electrical connection .....	26
6.5.1 Potential-free contact.....	27
6.5.2 Automatic Starting Device .....	28
6.6 Connect the compressed air supply .....	28
6.7 Dust extractor operation .....	29
<b>7 Operation .....</b>	<b>30</b>
7.1 Safety instructions .....	30
7.2 Inserting/replacing the chip bags.....	31
7.4 Electrics .....	32
7.4.1 Dedusting the filter .....	33
7.4.2 Electrics - Optional equipment: Rotary feeder.....	34
7.4.3 Monitoring the dirt accumulation on the filter .....	35
<b>8 Service.....</b>	<b>36</b>
8.1 Safety instructions .....	36
8.2 Maintenance schedule.....	36
8.3 Motor and electrical equipment.....	37
8.4 Dust collector / Seals.....	37
8.5 Fire extinguisher: Extinguisher / Water .....	37
8.6 Extinguisher: Maintenance and servicing (Every two years) .....	38
8.7 Safety cover (Check every six months) .....	38
8.8 Empty the condensation receptable .....	40
8.9 Changing the filter .....	41
8.10 Dust hazard prevention .....	42
8.10.1 Removing the collected materials.....	42
8.11 Faults, causes and repairs .....	43
<b>9 Annual general revision inspection certificate.....</b>	<b>44</b>

## General

# 1 General

## 1.1 Symbol legend

Important technical safety instructions in this manual are marked with symbols. These instructions for work safety must be followed.

In all these particular cases, special attention must be paid in order to avoid accidents, injury to persons or material damage.



**Warning! Risk of injury or death!**

This symbol marks instructions that must be followed in order to avoid harm to one's health, injuries, permanent impairment or death!



**Warning! Danger! Electric current!**

This symbol warns of potentially dangerous situations relating to electric current. Not observing the safety instructions increases the risk of serious injury or death. All electrical repairs must be carried out by a qualified electrician!



**Attention! Risk of material damage!**

This symbol marks instructions which, if not observed, may lead to material damage, functional failures and/or machine breakdown!



**Note:**

This symbol marks tips and information which should be observed to ensure efficient and failure-free operation of the machine.

## 1.2 Information about the manual

This manual describes how to operate the machine properly and safely. Be sure to follow the safety tips and instructions stated here as well as any local accident prevention regulations and general safety regulations. Before beginning any work on the machine, ensure that the manual, in particular the chapter entitled "Safety" and the respective safety guidelines, has been read in its

entirety and fully understood. This manual is an integral part of the machine and must therefore be kept in the direct vicinity of the machine and be accessible at all times. If the machine is sold, rented, lent or otherwise transferred to another party, the manual must accompany the machine.

## General

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### 1.3 Liability and warranty

The contents and instructions in this manual were compiled in consideration of current regulations and state-of-the-art technology as well as based on our know-how and experience acquired over many years. This manual must be read carefully before commencing any work on or with this machine. The manufacturer shall not be liable for damage and/or faults resulting from the disregard of instructions in the manual. The text and images do not necessarily represent the delivery contents.

The images and graphics are not depicted on a 1:1 scale. The actual delivery contents are dependent on custom-build specifications, add-on options or recent technical modifications and may therefore deviate from the descriptions, instructions and images contained in the manual. Should any questions arise, please contact the manufacturer. We reserve the right to make technical modifications to the product in order to further improve user-friendliness and develop its functionality.

### 1.4 Copyright

This manual should be handled confidentially. It is designated solely for those persons who work on or with the machine. All descriptions, texts, drawings, photos and other depictions are protected by copyright and other commercial laws. Illegal use of the materials is punishable by law.  
This manual, in its entirety or parts thereof, may not

be transferred to third parties or copied in any way or form, and its contents may not be used or otherwise communicated without the express written consent of the manufacturer. Infringement of these rights may lead to a demand for compensation or other applicable claims. We reserve all rights in exercising commercial protection laws.

### 1.5 Warranty notice

The guarantee period is in accordance with national guidelines. Details may be found on our website [www.felder-group.com](http://www.felder-group.com)

### 1.6 Spare parts

**Attention! Risk of material damage!**

**Non genuine, counterfeit or faulty spare parts may result in damage, cause malfunction or complete breakdown of the machine.**

If unauthorised spare parts are fitted into the machine, all warranty, service, compensation and liability claims against the manufacturer and their contractors, dealers and representatives shall be rejected.

Use only genuine spare parts supplied by the manufacturer.



**Note: The original spare parts that have been authorised for use are listed in a separate spare parts catalogue, enclosed in the documentation package supplied with the machine.**

## General

### 1.7 Disposal



**Attention! Used electrical materials, electronic components, lubricants and other auxiliary substances must be treated as hazardous waste and may only be disposed of by specialised, licensed firms.**

If the machine is to be disposed of, separate the components into the various materials groups in order to allow them to be reused or selectively disposed of. The whole structure is made of steel and can therefore be dismantled without problem. This material is also easy to dispose of and does not pol-

lute the environment or jeopardise public health. International environmental regulations and local disposal laws must always be complied with.

### 1.8 Responsibilities of the operator



**Attention! Safety regulations**  
**The dust collector must be included in the users documentation for explosion- and fire protection.**

This manual must be kept in the immediate vicinity of the machine and be accessible at all times to all persons working on or with the machine. The machine may only be operated if it is in proper working order and in safe condition. All instructions in this manual must be strictly followed without reservation.

Besides the safety advices and instructions stated in this manual, it is necessary to consider and observe local accident prevention regulations, general safety regulations as well as current environmental stipulations that apply to the operational range of the machine.

The operator and designated personnel are responsible for the trouble-free operation of the machine as well as for clearly establishing who is in charge of installing, servicing, maintaining and cleaning the machine. Machines, tools and accessories must be kept out of the reach of children.

### 1.9 Personnel requirements

Only authorised and trained personnel may work on and with the machine. Personnel must be briefed about all functions and potential dangers of the machine. "Specialist staff" is a term that refers to those who – due to their professional training, know-how, experience, and knowledge of relevant regulations – are in a position to assess delegated tasks and recognise potential risks. If the personnel lack the necessary knowledge for working on or with the machine, they must first be trained. Responsibility for working with the machine (installation, service, maintenance, overhaul) must be clearly defined and strictly observed. Only those persons who can be expected to carry out their work reliably may be given permission to work on or with the machine. Personnel

must refrain from working in ways that could harm others, the environment or the machine itself. It is absolutely forbidden for anyone who is under the influence of drugs, alcohol or reaction-impairing medication to work on or with the machine. When appointing personnel to work on the machine, it is necessary to observe all local regulations regarding age and professional status. The user is also responsible for ensuring that unauthorised persons remain at a safe distance from the machine. Personnel are obliged to immediately report any irregularities with the machine that might compromise safety to the operator.

## **Safety**

---

## **2 Safety**

At the time of its development and production, the machine was built in accordance with prevailing technological regulations and therefore conforms to industry safety standards.

However, hazards may arise should the machine be operated by untrained personnel, used improperly or employed for purposes other than those it was designed for.

The chapter entitled "Safety" offers an overview of all the important safety considerations necessary to optimise safety and ensure the safe and trouble-free operation of the machine.

To further minimise risks, the other chapters of this manual contain specific safety instructions, all marked with symbols.

Besides the various instructions, there are a number of pictograms, signs and labels affixed to the machine that must also be heeded. These must be kept visible and must not be removed.

### **2.1 Work safety**

Following the safety advice and instructions given in this manual can prevent bodily injury and material damage while working on and with the machine.

Failure to observe these instructions can lead to bodily injury and damage to or destruction of the machine. Disregard of the safety advice and instructions given in this manual as well as the accident prevention regula-

tions and general safety regulations applicable to the operative range of the machine shall release the manufacturer and their authorised representatives from any liability and from all compensation claims.

### **2.2 Manual contents**

All those appointed to work on or with the machine must have fully read and understood the manual before commencing any work.

This requirement must be met even if the appointed person is familiar with the operation of such a machine or a similar one, or has been trained by the manufacturer.

Knowledge about the contents of this manual is a prerequisite for protecting personnel from hazards and avoiding mistakes so that the machine may be operated in a safe and trouble free manner.

It is recommended that the operator requests proof from the personnel that the contents of the manual have been read and understood.

### **2.3 Making changes and modifications to the machine**

In order to minimise risks and to ensure optimal performance, it is strictly prohibited to alter, retrofit or modify the machine in any way without the express consent of the manufacturer.

All the pictograms, signs and labels affixed to the

machine must be kept visible, readable and may not be removed.

Pictograms, signs and labels that have become damaged or unreadable must be replaced promptly.



## Safety

### 2.4 Intended use

Operational safety is guaranteed only when the machine is used for the intended purposes.

The term "proper use" also refers to correctly observing the operating conditions as well as the specifications

and instructions in this manual.

The machine may only be operated with parts and original accessories from the manufacturer.



**Attention! Any use outside of the machine's intended purpose shall be considered improper and is therefore not permitted. All claims regarding damage resulting from improper use that are made against the manufacturer and its authorised representatives shall be rejected. The operator shall be solely liable for any damage that results from improper use of the machine.**

**The device is, from the safety point of view, designed to absorb from:**

- Dust that is classed as explosive under category St 1
- Wood dust and chips (All solid woods)
- Panel materials (Ply wood, medium density fibre boards (MDF), highly compressed fibre boards (HDF) and chip-boards, Plywood board)
- Panel materials that are laminated or have a plastic or aluminium edge
- other materials similar to wood (Cork, Plastics, rigid rubber, bone, Paper, Cardboard box,...)
- Extracting other types of dust than wood dust is only authorised with the express agreement of the machine manufacturer.
- Woodworking machines, where there is no chance that a spark could occur under normal operation (Woodworking machines that cannot cause sparks according to BGI 739)
- Woodworking machinery with an extraction connection smaller or equal:  
RL 250 -> 250 mm / RL 300 -> 300 mm / RL 350 -> 350 mm

**On the basis of safety this machine is NOT DESIGNED and should not be used for the extraction of the following:**

- explosive or similar substances classified under §1 of the SprengG
- Dust that is classed as explosive under category St 2 or St 3
- Dust that requires very little minimum ignition energy (under 10 MJ)
- explosive gases or gas/air mix
- Flammable liquids including combinations of flammable dust with flammable liquid
- Woodworking machines, where there is a chance that a spark could be caused e.g. a multi blade saw.

### 2.5 Location site requirements



**Warning! Risk of injury or death!**

The operator is prohibited from using the machine in an explosive environment or in a potentially explosive environment.

- When vacuuming oak or beech dust, the purified air must be returned to the room from which it was extracted. Positioning the dust extractor beside the woodworking machine will ensure this.
- When vacuuming oak or beech dust, the exhaust air volume returned to the room by the dust extractor must not exceed 50% of the air delivered. For natural ventilation, assume an intake volume of 1x the room volume (m<sup>3</sup>/h, air exchange index LW=1/h).

## Safety

### 2.6 Personal protective equipment

When working on or with the machine, the following must always be worn by personnel:



**Protective clothes**

Sturdy, tight-fitting clothing (tear-resistant, no wide sleeves).



**Protective footwear**

To protect the feet from heavy falling objects and prevent sliding on slippery floors



**Respirator mask**

to protect against dust pollution



**Hearing protection**

pour éviter des traumatismes auditifs.

### 2.7 Other risks



**Warning! Risk of injury or death!**

- Hearing damage as a result of high noise levels
- Health impairments due to the inhalation of airborne particles, especially when working with beech and oak wood.

### 2.8 Machine hazards

The machine has undergone a hazard analysis. The design and construction of the machine are based on the results of this analysis and correspond to state-of-the-art technology.

The machine is considered operationally safe when used

properly.

Nevertheless, there are some remaining risks that must be considered.

The machine runs at high electrical voltage.



**Warning! Danger! Electric current!**

**Electrical energy can cause serious bodily injury. Damaged insulation materials or defective individual components can cause a life-threatening electrical shock.**

- Before carrying out any maintenance, cleaning and repair work, switch off the machine and ensure that it can not be accidentally switched on again.
- When carrying out any work on the electrical equipment, ensure that the voltage supply is completely isolated.
- Do not remove any safety devices or alter them to prevent them from functioning correctly.

## Safety

### 2.9 Fire hazards



**Warning! Danger of fire!**  
Incorrect installation and usage could result in a fire.

In particular the extraction of wood dust can develop into, during the vacuuming process or once the device is switched off, a combustible dust and air mixture. This mixture can develop into a very serious fire.

- The dust extraction hoses must be electrically conductive and grounded to prevent electrostatic build up.
- The vacuum hoses/pipes must be flameproof.
- Earth vacuum hose/pipes against any static electricity that may accumulate.
- All electrical connections must be installed correctly

To fight this fire hazard, the dust extractor has been equipped with an automatic spark extinguisher.

Simultaneously, the extraction fan is switched off and the compressed air supply to clean the filter is shut off.

- by a qualified person.
- Electricity supply only in authorized field of  $\pm 10\%$  of network.
- Only vacuum sawdust and woodshavings.
- Do not vacuum spark-generating objects (e.g. nails, screws etc.).
- Do not vacuum any inflammable waste. (e.g. cigarette ends, flying sparks, etc.)

### 2.10 Noise emission



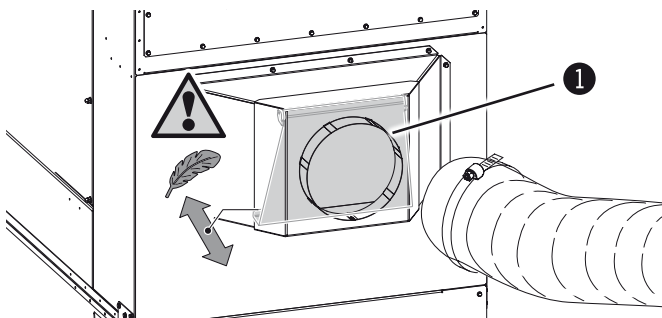
**Note: The measurement results are in accordance to prEN 16770**  
Measured by nominal volume flow in an open sound field., without transport of the chippings  
(See technical data)

### 2.11 Safety cover



**Attention! Safety regulations (Check every six months)**

Check the function; the safety cover have to fall back in place after having been lifted up.  
See chapter entitled >Service<



The safety cover simultaneously fulfills 2 functions:

1. Closes the vacuum connector if dust should explode.
2. Forwards the vacuumings towards the dust collecting sacks.

Ensure that this cover is always easy to move.

- ① Safety cover

Fig. 2-1: Safety cover

## Safety

### 2.12 Procedure in case of fire (Emergencies)



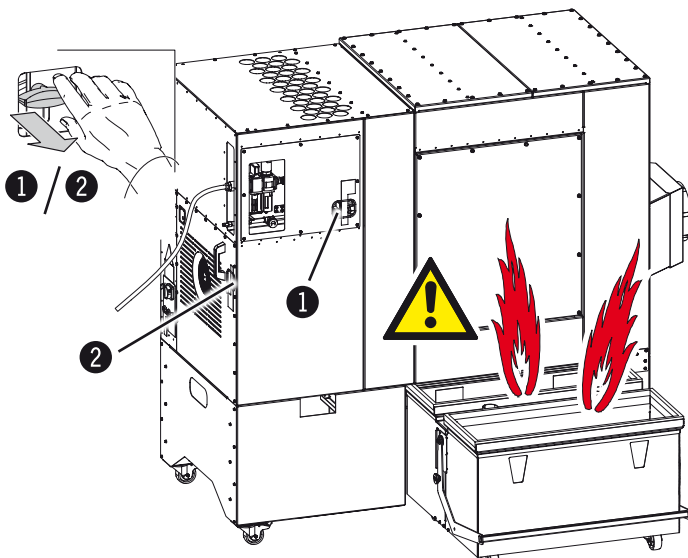
**Warning!** In case of fire don't clean the filter!

**Attention!** When moving the chip container, flash fire can occur!



**Note: Fire extinguisher**

If due to technical difficulties, the solenoid valve does not open, it can be extinguished manually by operator.



#### Procedure in case of fire (Emergencies)

1. Pull the lever forwards (up to stop)
2. Call the fire-brigade.
3. Please contact the FELDER customer service!

- ① / ② Lever
- ① Fire extinguisher (Water)
- ② Extinguisher

Fig. 2-2: Procedure in case of fire



**Attention! Risk of flooding / Risk of material damage!**

1) Check the pressure on the pressure gauge every day!

2) Water sprinkler:

The stop cock must be closed after the fire extinguisher was triggered

3) After the fire extinguisher was triggered a service by a FELDER technician is mandatory!

### 2.13 Explosion pressure proofness



**Note:**

The explosion pressure proofness is 200 mbar.

The RL 250 / RL300 / RL 350 clean air devices were tested for explosion pressure proofness by the FSA GmbH test centre.

The dust extractor is tested for explosion pressure proofness with an explosion pressure of 200 mbar (0.2 bar) and therefore, can be set up in a working environment if the necessary requirements are fulfilled.

The maximum explosion excess pressure, up to which the dust extractor still withstood any form of damage, was used as a proof pressure value, as detailed in the VDI 2263 Guidelines, Part 3.

Afterwards, to test the explosion pressure proofness, a minimum of 1.1 x the proof pressure has to be attained safely. Deformations are tolerated.

*Declaration of Conformity*

### 3 Declaration of Conformity



We hereby declare that the machine indicated below, which corresponds to the design and construction of the model we placed on the market, conforms with the health and safety requirements as stated by the EC.

Manufacturer:	<b>Felder KG</b> <b>KR-FELDER-STR. 1</b> <b>A-6060 Hall in Tirol</b>
Product designation:	<b>Clean-Air Dust Extractor</b>
Make:	<b>FELDER</b>
Model designation:	<b>RL 250 / RL 300 / RL 350</b>
The following EC guidelines were applied:	<b>2006/42/EG</b> <b>2014/29/EU</b> <b>2014/35/EU</b> <b>prEN 16770</b> <b>2014/30/EU</b>
The prototype test was carried out by:	<b>DGUV Test</b> <b>Prüf- und Zertifizierungsstelle Holz</b> <b>Fachbereich Holz und Metall</b> <b>Vollmoellerstraße 11</b> <b>D-70563 Stuttgart</b> <b>NB 0392</b>

The compact dust extractor was built according to the inspection standards of the GS-HO-07 certificate (from January 2010) and was inspected according to these inspection standards by the German wood institute for statutory accident insurance and prevention (Holz-Berufsgenossenschaft), Vollmoellerstrasse 11, 70563 Stuttgart, Germany.

The dust extractor is thus appropriate to extract and to separate dry (wood moisture < 30%) wood dust and shavings, whereby the residual dust contents level of 3 "H3", 0.1 mg/m<sup>3</sup> will be adhered to.

**Explanation to guideline ATEX 2014/34/EU:**

On the basis of safety this machine is NOT DESIGNED and should not be used in explosion-proof areas. There will be combustible dusts inside the dirty gas area of the dust extractor. Due to the ignition sources-free construction the danger of explosion will be prevented. The limited geometrical design will avoid the remaining risk of aspirated sparks. The machine casings of RL 250, RL 300 and RL 350 are additionally designed in pressure proof quality.

This EC Declaration of Conformity is valid only if the CE label has been affixed to the machine.

Modifying or altering the machine without the express written agreement of the manufacturer shall render the warranty null and void.

The signatory of this statement is the appointed agent for the compilation of the technical information

Johann Felder, Managing Director FELDER KG  
KR-FELDER-STR.1 • A-6060 Hall in Tirol

Hall in Tirol, 1.2.2018

## Specifications

### 4 Technical specifications

#### 4.1 Dimensions and weight

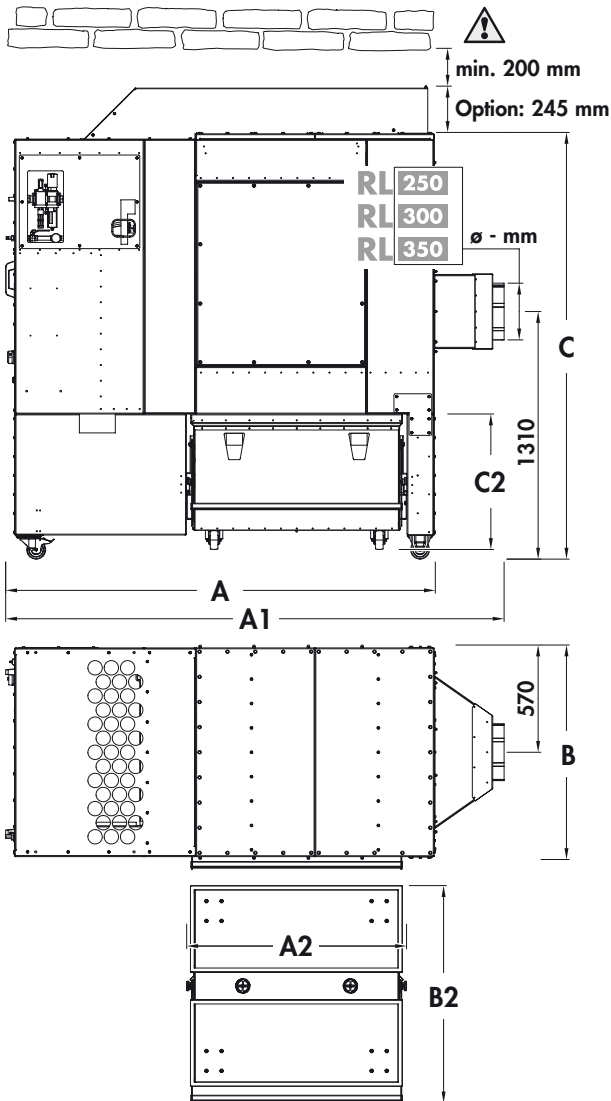


Fig. 4-1: Overview

#### 4.1.2 Important information

The dust inspection applies to beech wood dust, with the following specifications:

- Approx. median value  $100 \mu\text{m}$ ,  $20 \mu\text{m} \leq d_{90} \leq 300 \mu\text{m}$
- Wood moisture  $8\% \pm 2\%$
- The metered beech wood dust concentration amounts to  $5 \text{ g/m}^3$  of air.

#### Basic extractor

Total length (A)	2275 mm
Total length (A1)	2640 mm
Overall width (B)	1140 mm
Total height (C)	2260 mm
Weight RL 250 / RL 300	785 kg
Weight RL 350	825 kg

#### Chip container

Total length (A2)	1165 mm
Overall width (B2)	1150 mm
Total height (C2)	725 mm
Bag volume	2 x 250 litres

Motor power see data plate

#### RL 250

Filter surface	50 m <sup>2</sup>
Air-to-cloth ratio (for nominal air flow rate)	71 m <sup>3</sup> /m <sup>2</sup> xh
Extractor supports- $\varnothing$	250 mm

#### RL 300

Filter surface	50 m <sup>2</sup>
Air-to-cloth ratio (for nominal air flow rate)	102 m <sup>3</sup> /m <sup>2</sup> xh
Extractor supports- $\varnothing$	300 mm

#### RL 350

Filter surface	71,3 m <sup>2</sup>
Air-to-cloth ratio (for nominal air flow rate)	98 m <sup>3</sup> /m <sup>2</sup> xh
Extractor supports- $\varnothing$	350 mm

#### RL 250 / RL 300 / RL 350

Pneumatic connection	7-12 bar
Air consumption	40 NI/min
Polyester drum filter	Category „M“
Dust emission quality (mg/m <sup>3</sup> )	<0,1*
Noise emission max.	75 dB (A)**

\* H3-certification with  $0.1 \text{ mg/m}^3$  passed well within tolerance, (wood dust)

\*\* An allowance must be made to compensate for tolerances with the specified emission values.  $K=4 \text{ dB (A)}$ .  
The measurement results are in accordance to prEN 16770 (See chapter entitled > Noise emission < )

Specifications

4.2 Performance diagram



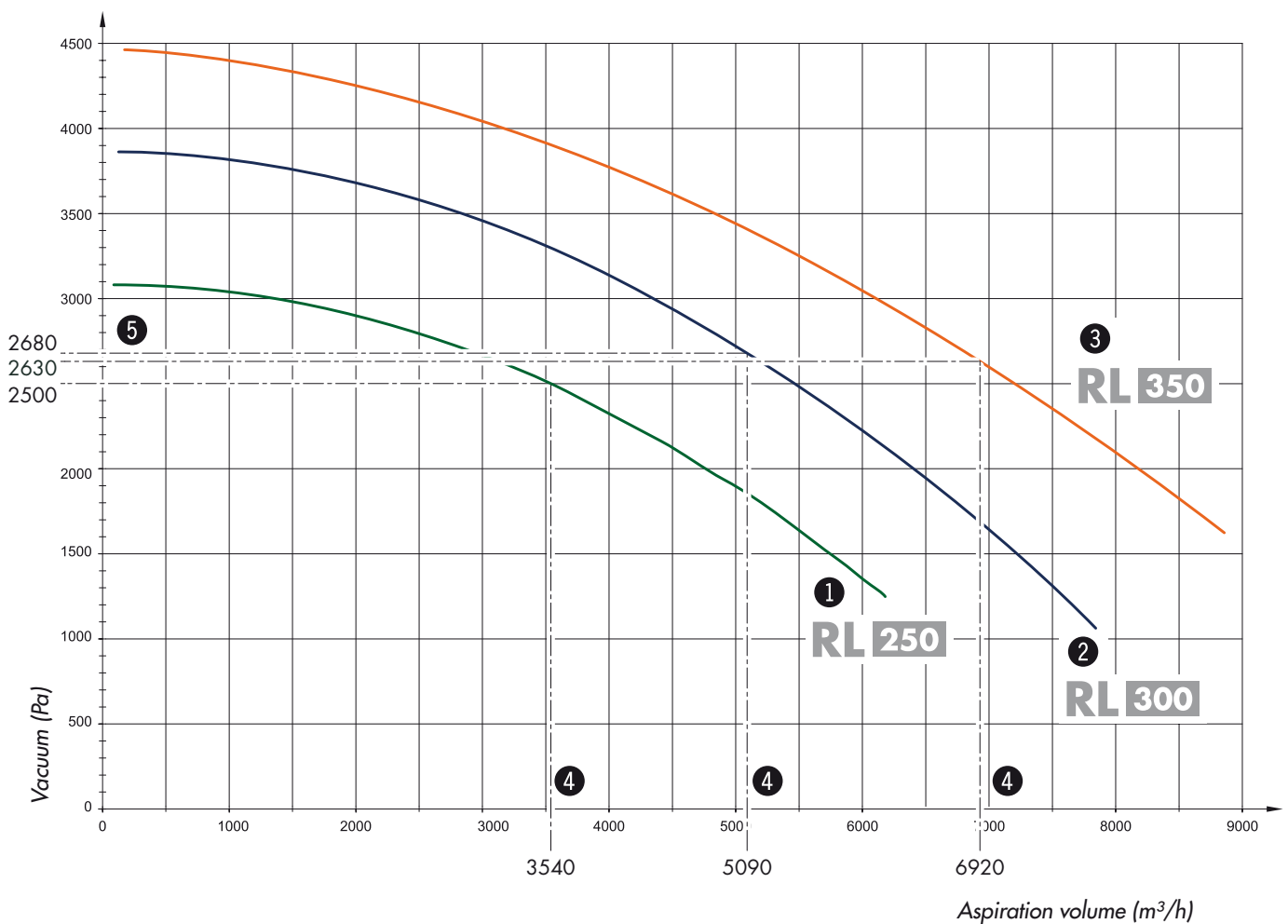
**Attention! Safety regulations**

The power of the extractor system and the safety device must be verified before initial start.

In addition, the vacuum performance must be sufficient to achieve the required negative pressures and an air speed of 20 m/s at the connector.

We recommend this be performed by FELDER trained specialists.

① ② ③	Pressure difference at the hose connector	① RL 250	② RL 300	③ RL 350
④	Nominal air flow rate (at 20 m/s):	3540 m <sup>3</sup> /h	5090 m <sup>3</sup> /h	6920 m <sup>3</sup> /h
⑤	Vacuum (for nominal air flow rate):	2500 Pa	2680 Pa	2630 Pa



## Specifications

### 4.3 Data plate

A-6060 HALL in Tirol, KR-Felder-Straße 1, Austria, Tel. +43 (0) 5223 58500, Fax +43 (0) 5223 56130, info@felder.at			<b>FELDER</b>	
TYPE : XXXXXXXX			<b>CE</b>	
NR.: XXX-XXX/XX-XX				
V: 400	PH: 3	HZ: 50	A: X.X	
KW: X.X S1		Reinluftabsauggeraet		
Baujahr / year of construction / ANNEE DE CONSTR.: 20xx				
Absaugstutzendurchmesser xxx mm Vmax: xxxx m <sup>3</sup> /h, Motordrehzahl 2800 U/min Vnenn: (20 m/s) xxx m <sup>3</sup> /h Unterdruck bei Vnenn: xxxx Pa Gewicht: xxx kg, Vorsicherung xx A Made in Austria				

The data plate displays the following specifications:

- Model designation
- Machine number
- Voltage
- Phases
- Frequency
- Power
- Power supply
- Year of construction
- Manufacturer information

Additional data:

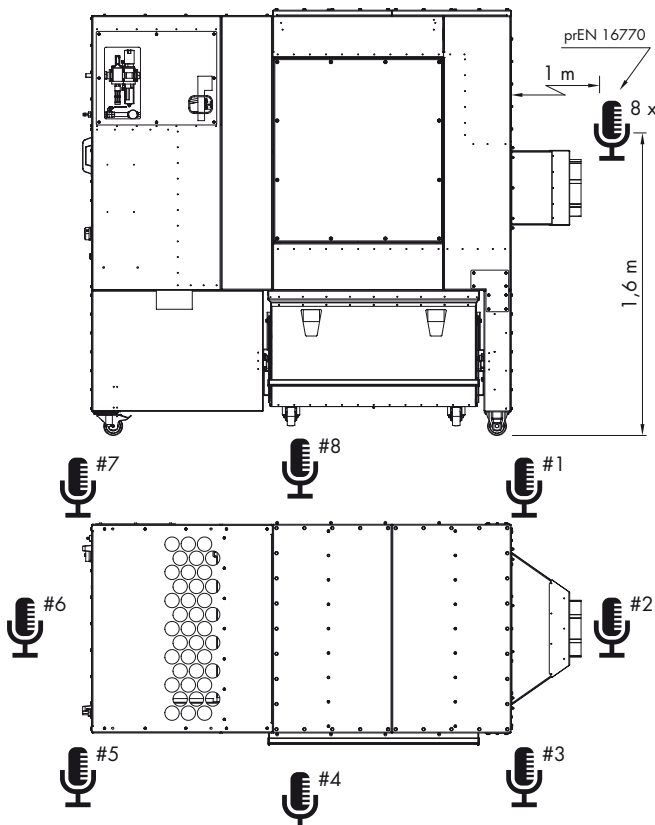
- Vacuum
- Volume flow
- Backup fuse

Fig. 4-2: Data plate

### 4.4 Noise emission



**Note: The measurement results are in accordance to prEN 16770**  
Measured by nominal volume flow in an open sound field., without transport of the chippings (see sketches)



The specified values are emission values and therefore do not represent safe workplace values.

Even though a relationship exists between particle emission and noise emission levels, an inference cannot be made about whether additional safety measures need to be implemented. Factors which can significantly affect the emission level that presently exists at the workplace include duration of the effect, characteristics of the work-space, and other ambient influences.

The permissible workplace values may also differ from country to country. Nevertheless, this information is provided to help the operator better assess hazards and risks.

Depending on the location of the machine and other specific conditions, the actual noise emission values may deviate significantly from the specified values.

Fig. 4-3: Noise emission values



*Specifications*

---

## *Making adjustments and preparations*

---

# 5 Transport, packaging and storage

## 5.1 Safety instructions

**Warning! Risk of injury!**

There is a risk of injury as a result of falling parts while transporting, loading or unloading the machine.

**Attention! Risk of material damage!**

The machine can be damaged or destroyed if it is subjected to improper handling during transport.

For this reason the following safety instructions must be observed:

- Never lift loads over a person.
- Always move the machine with the utmost care and caution.
- Only use suitable lifting accessories and hoisting devices that have a sufficient load-carrying capacity.
- Never lift the machine by its protruding parts.
- Consider the machine's centre of gravity when transporting it (minimise the risk of it tipping over).
- Take measures to prevent the machine from slipping sideways.
- Ropes, belts or other hoisting devices must be equipped with safety hooks.
- Do not use torn or worn ropes.
- Do not use knotted ropes or belts.
- Ensure that ropes and belts do not lie against sharp edges.
- Transport the machine as carefully as possible in order to prevent damage.
- Avoid subjecting the machine to shocks.
- When transporting the machine overseas, ensure that the packaging is airtight and that a desiccant is added to protect the metal parts against corrosion.

## 5.2 Transport



**Attention! Risk of material damage! The machine must be kept weatherproof while in transport.**

## 5.3 Transport inspection

Upon arrival, inspect the shipment to ensure that it is complete and has not suffered any damage. If any transport damage is visible, do not accept the delivery or only accept it with reservation. Record the scope of the damage on the transport documents/

delivery note.

Initiate the complaint process. For all defects that are not discovered upon delivery, be sure to report them as soon as they are recognised as damage claims must be filed within a certain period, as granted by law.

## Making adjustments and preparations

### 5.4 Packaging

**!** Attention! Dispose of the packaging materials in an environmentally friendly way and always in accordance with local waste disposal regulations. If applicable, contract a recycling firm to dispose of the packaging materials.

**i** Note: Help preserve the environment!  
Packaging materials are valuable raw materials and in many cases they can be used again or expediently reprocessed or recycled.

If no agreement has been made with the supplier to take back the packaging materials, help to protect the environment by reusing the materials or separating them according to type and size for recycling.

- Scrap waste metal
- Recycle all plastic elements
- Sort all other components and dispose of appropriately.

### 5.5 Storage

**i** Note:  
Keep items sealed in their packaging until they are assembled/installed and be sure to observe the stacking and storage symbols on the outside of the packaging.

#### Store packed items only under the following conditions

- Do not store outdoors.
- Store in a dry and dust-free environment.
- Do not expose to aggressive substances.
- Protect from direct sunlight.
- Avoid subjecting the machine to shocks.
- Storage temperature:  $-10^{\circ}$  to  $+50^{\circ}$  °C
- Maximum humidity: 60 %
- Avoid extreme temperature fluctuations (to prevent build-up of condensation).
- Apply a coat of oil to all machine parts open to possible rusting (corrosion protection).
- When storing for a period longer than 3 months, apply a coat of oil to all machine parts open to rusting (corrosion protection). Regularly check the general condition of all parts and the packaging. If necessary, refresh or re-apply the coat of anti-corrosive agent.
- If the machine is to be stored in a damp environment, it must be sealed in airtight packaging and protected. (desiccant).

## Setup and installation

### 6 Setup and installation

#### 6.1 Safety instructions



**Warning! Risk of injury!**

**Improper assembly and installation can lead to serious physical injury or equipment damage.**

**For this reason, this work may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and in strict observance of all safety instructions.**

**Only assemble and install the machine if the machine and its parts are complete and intact.**

- Ensure that there is sufficient space to work around the machine. Ensure there is ample distance between the machine and other solid constructions such as a walls or other machines.
- Keep the work area orderly and clean. Components and tools that are not put in their correct place or put away may be the cause of accidents!
- Install the safety equipment according to the instructions and check that it functions properly.



**Warning! Danger of fire!**

**Unprofessional installation may lead to a fire.**

**Therefore:**

- When connecting the machines to the dust extractor, only use steel piping or flame resistant hose and ensure that these are earthed via metal coil, to prevent the build up of electro static electricity.
- In general when connecting the machines to the extractor, the machines should be earthed to prevent the build up of electro static electricity.
- All electrical connections must be installed correctly by a qualified person.
- Electricity supply only in authorized field of  $\pm 10\%$  of network.



**Note:**

**In addition, the vacuum performance must be sufficient to achieve the required negative pressures and an air speed of 20 m/s at the connector.**

**Gate valves, Extraction accessories, hose and pipe systems, are available in our „Tools, accessories and workshop equipment“ catalogue!**

#### 6.1.1 Setup

**Requirements at the place of assembly:**

- A dry, enclosed room.
- Operating/room temperature:  $+10^{\circ}$  to  $+40^{\circ}\text{C}$
- Adequate ventilation e.g. to enable ample air circulation for the machine cooling system.
- When positioning the machine in a room other than the workshop, please ensure there is ample ventilation.e.g. provided through an extractor fan. Minimum cross- sectional area 0,25 square meters.
- The working area must have an adequate load-bearing capacity and stability and the walls must be stable.
- Even floors without a slope.
- Provide sufficient light at the workstation.
- Ensure there is sufficient clearance for or from neighbouring workstations.

## Setup and installation

### 6.2 Assembly

**i** Note: Due to technical reasons, the machine is delivered in a partly dismantled state. To install the machines without a problem, two extra reliable people will be needed.

Note: For a perfect extraction result, a correct installation of the system is necessary (e.g. Check whether the minimum exhaust volume control is functioning correctly) We recommend this be performed by FELDER trained specialists.

#### 6.2.1 Basic extractor



**Warning! Risk of injury! / Risk of material damage!**

Consider the centre of gravity when hoisting the machine (danger of overturning).

Use a wooden mat approx. 19x60x1000 mm

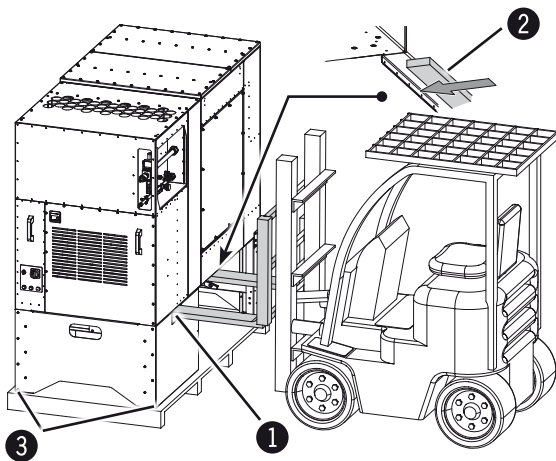


Fig. 6-1.1: Lifting procedures / Transporting the machine

#### Standard equipment:

Lift the lever and remove the whole container from under the machine.

#### Optional equipment

(Rotary feeder / Wood chip briquetting press)

Transport the machine according to the enclosed transport and assembly instructions!

#### all machines:

Move the forks of the forklift truck so they fit into the machine frame holes.

Place the synthetic insert into position. approx. 19x60x1000 mm

remove transport supports

① Cutout hole in the machine frame

② Synthetic insert

Remove the transport brackets before moving the machine to the installation location

Remove all transport locking devices from the machine prior to machine operation.

③ Transport brackets / transport support

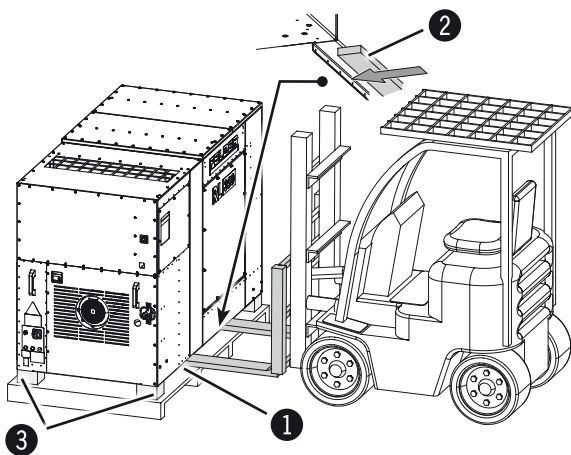


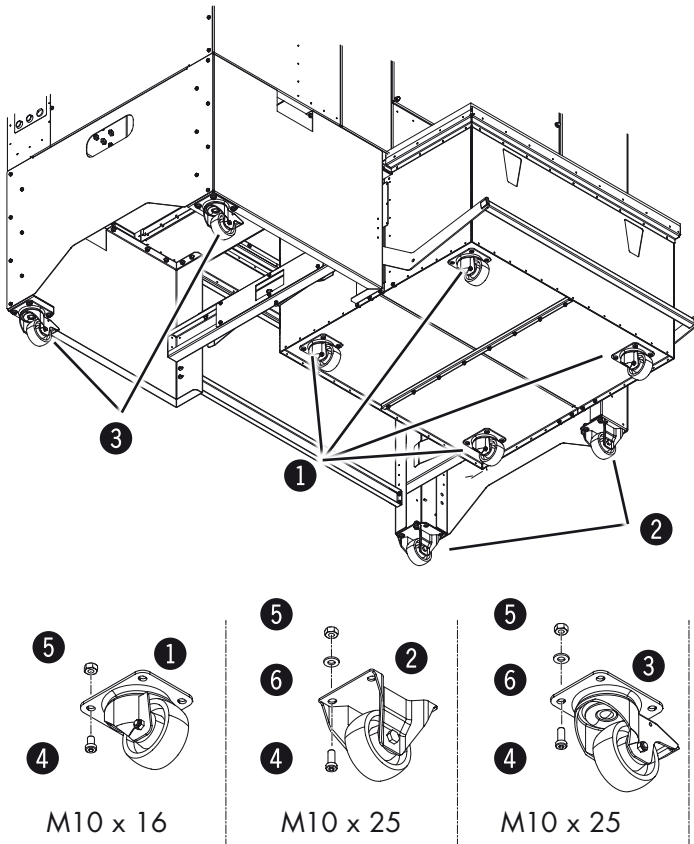
Fig. 6-1.2: Optional equipment

**i** Note: Optional equipment (Rotary feeder / Wood chip briquetting press)  
The assembly may only be undertaken by an authorised customer service technician.

Assembling on your own authority may result in personal injury or material damage.

## Setup and installation

### 6.2.2 Chip container (Standardaus equipment)



Before you can work with your dust extractor, you must screw the wheels to the chip container and the base unit.

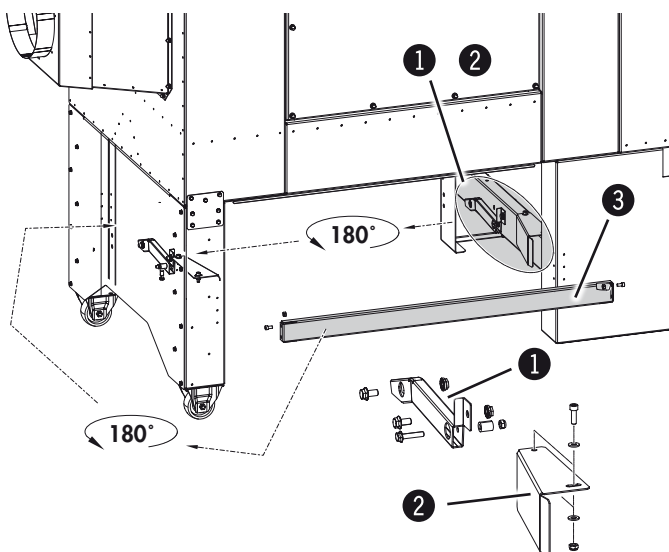
The chip container is equipped with 4 steering rollers. Screw the steering roller to the chip container using the supplied screws and nuts.

The base unit is equipped with 2 steering rollers and 2 fixed rollers. Screw both steering rollers and both fixed rollers to the base unit using the supplied screws and nuts.

- ① Steering rollers (Chip container)
- ② Fixed rollers
- ③ Steering rollers (with brake)
- ④ Screws
- ⑤ Nuts
- ⑥ Shims

Fig. 6-2.1: Steering rollers / Fixed rollers

### 6.2.3 Mirror-inverted operation



The dust collecting container can be pushed under the extractor from the other side if there is a shortage of space.

Screw the supporting bracket, rotated by 180°, onto the opposite side of the machine.

Screw the stop plate, also rotated by 180°, onto the front side of the machine.

- ① Supporting bracket 1
- ② Supporting bracket 2
- ③ Stop plate

Fig. 6-2.2: Mirror-inverted operation

## Setup and installation

### 6.2.4 Collector casters (Optional equipment: Rotary feeder)

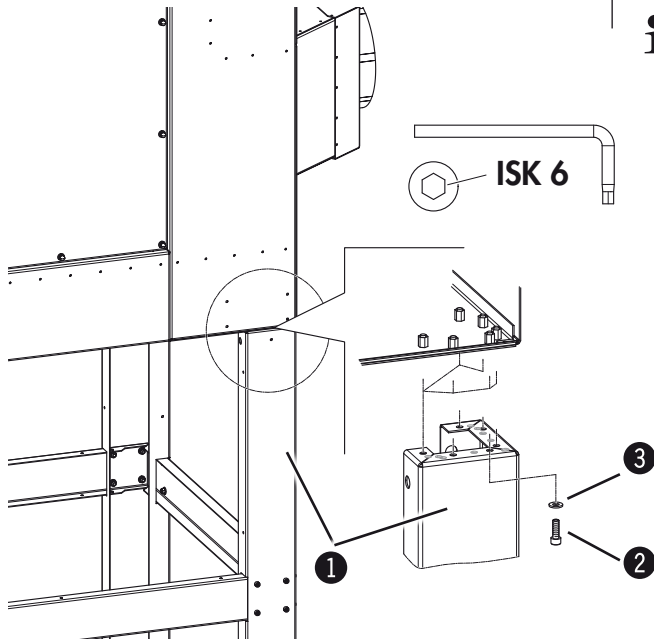


Fig. 6-3: Collector casters

**i** Note:

The assembly may only be undertaken by an authorised customer service technician.

Assembling on your own authority may result in personal injury or material damage.

Assembling casters to the dust extractor:

- ① Collector casters
- ② Allen screws  
6 pcs. - M8 x 25 mm
- ③ Shims

### 6.2.5 Vacuum connector assembly

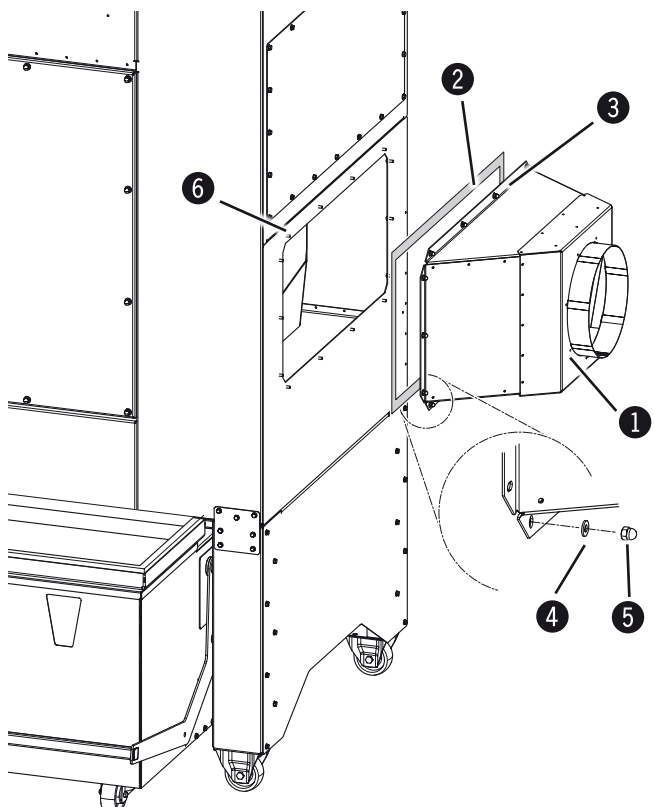


Fig. 6-4: Vacuum connector assembly

Remove the oxidation protective layer from all blank machine parts.

1. Vacuum connector assembly.
2. Stick sealing tape to the bottom of the connection plate.
3. Screw connection plate to the machine with nuts and washers. (15 x).

- ① Vacuum connector
- ② Sealing tape.
- ③ Connection plate
- ④ Shims
- ⑤ cap nut
- ⑥ Basic extractor

## Setup and installation

### 6.3 Fire prevention and extinguisher



**Attention: Risk!** The integrated extinguisher must be connected by the operator or by a specialist company contracted to do so.

Removing components (i.e. the hold-back gate) or changing the Logo module parameters will have serious consequences when attempting to fight a fire.



**Note:**

- 1) If the temperature measures more than  $> 70^{\circ}\text{C}$  at the measuring point (temperature sensor in the clean gas area), an extinguishing process is triggered within the set time delay (max. of 30 seconds).
- 2) Connecting a warning alarm system (Option): The dust extractor can be connected via the potential-free contact (See chapter entitled  $>$  Electrical connection  $<$ )



**Attention! Risk of flooding / Risk of material damage!**

- 1) Check the pressure on the pressure gauge every day!
- 2) If due to technical difficulties, the solenoid valve does not open, it can be extinguished manually by operator.  
See chapter entitled  $>$ Procedure in case of fire (Emergencies) $<$
- 3) Water sprinkler: The stop cock must be closed after the fire extinguisher was triggered.
- 4) After the fire extinguisher was triggered a service by a FELDER technician is mandatory!

#### 6.3.1 Fire extinguisher: Water

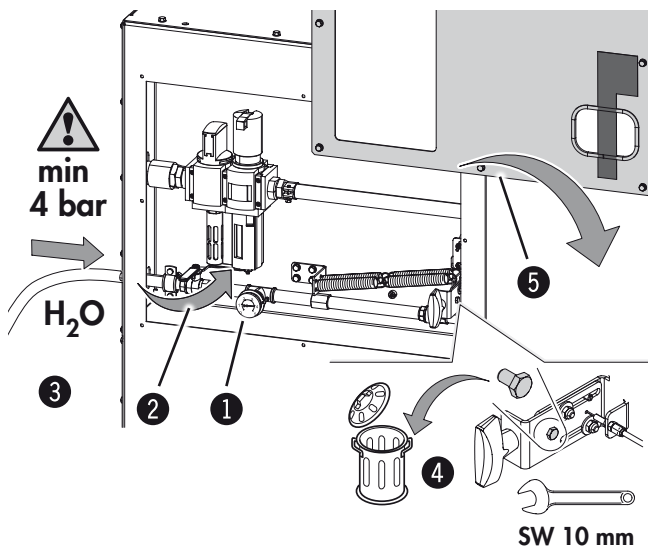


Fig. 6-5.1: Water sprinkler

- ① Manometer
- ② Cut off tap
- ③ Connecting line (max. 1 m)
- ④ Securing bolt
- ⑤ Cover

#### Safety regulations

- The stop cock must be opened when the machine is connected to the water pipe.
- The fire extinguisher must be connected to the main water supply 1/2 inch pipe with a pressure of at least 4 bar.
- The minimum water pressure after triggering must be 1 bar min.
- The connecting line between the water pipe and the machine must not exceed 1 meter and must not limit the flow rate.

**Min. extinguishing excess water pressure 4 bar**

#### Connecting line

1. Take off the covering lid.
2. Loosen and remove the securing bolt
3. Connect the water connection with a fixed pipe or a steel hose line and flood.
4. Reassemble the cover.

See individual assembly instructions



## Setup and installation

### 6.3.2 Fire extinguisher: Extinguisher

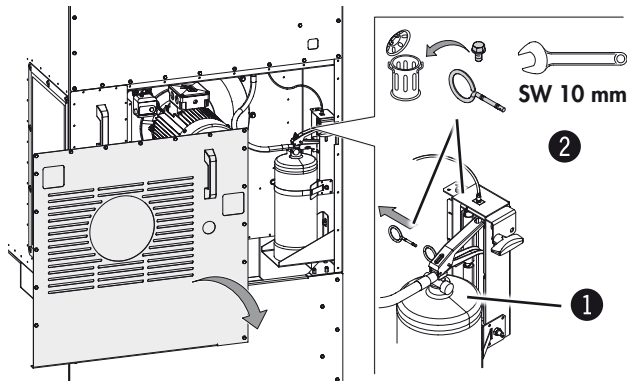


Fig. 6-5.2: Fire extinguisher - Extinguisher

- ① Manometer
- ② Securing bolt / Retaining ring

To fight this fire hazard, the dust extractor has been equipped with an automatic spark extinguisher.

1. Take off the covering lid.
2. Loosen and remove the securing bolt
3. Retaining ring: pull out
4. Reassemble the cover.

See individual assembly instructions

**Extinguisher**

**12 kg**

### 6.4 Floor space requirement



**Note:** Ensure that there is sufficient space to work around the machine.

To operate and maintain the machine, leave a min. of 2000 mm space all around the machine. (Inserting/replacing the chip bags)

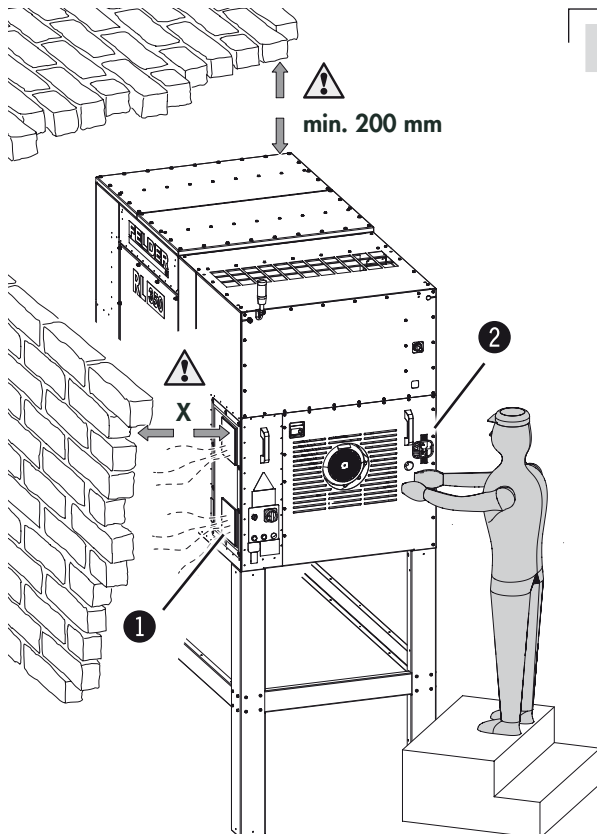


Fig. 6-6: Floor space requirement



**Attention!**

**Fire extinguisher: Extinguisher**

Access via the opening on the back of the machine. Use a set of safe steps or a fixed platform if necessary.

**Frequency converter version**

In order to maintain and operate the machine properly, it must be set up at least 500 mm away from the wall, parallel to the work direction (measurement X).

**Important information:**

- Operation/room temperature: +10° to +40° C
- Adequate ventilation e.g. to enable ample air circulation for the machine cooling system / Equipment cabinet
- if required:  
Clean the electric box ventilation.

- ① Ventilation cowl
- ② Fire extinguisher: Extinguisher

## Setup and installation

### 6.5 Electrical connection



**Warning! Danger! Electric current!**

Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.

Checking the loop impedance and the suitability of the overcurrent protective device must take place at the location where the machine is to be commissioned!

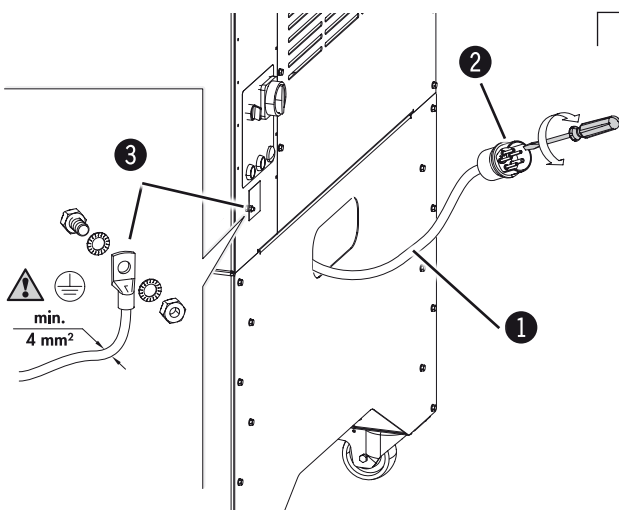


**Note: RL 350 - Frequency converter version**

If residual current protection is used, a  $\geq 300\text{mA}$  RCCB sensitive to universal current must be installed. The machine must be connected by a licensed electrician on the day of commissioning.

Electrical connection / Residual current protection (RCCB): see circuit plan

- Check the data on the rating plate to see whether your power supply matches the voltage shown there.
- Only connect the power plug once the dust collector is positioned in its operating location. Connect to CEE outlet (e.g. wall outlet)
- Safeguarding triggering characteristic - see data plate.
- The unit must be connected to a ground wire and be electrically grounded.
- Be sure the power cable is not damaged by being run over, crushed, stretched, etc.
- Regularly inspect the power cable for signs of damage or aging!
- The unit must not be used if the power cable is not in an excellent condition.
- Only a trained person is permitted to replace the power cable and power outlet.
- To retain warranty coverage, do not modify any part of the electrical installation!
- To connect electricity-operated machines, only use connectors according to the VDE 0165 standards.
- Interconnection couplers and adaptors may not be used.
- The unit must only be used in TN-Systems (neutral connected to earth)!
- The connection wire type has to be 4(5)x4,0 mm<sup>2</sup> H07RN-F or at least equivalent.



**Note:**

The machine's power cable is delivered with an open cable end, i.e. without a plug.

The operator is responsible for fitting the machine's power cable with a suitable plug in accordance with any country's specific regulations.

See the FELDER catalogue

- ① Power supply cord
- ② CEE-Plug  
Phase inverter (Option)
- ③ Earth connection  
(Frequency converter version)

Fig. 6-7: Electrical connection

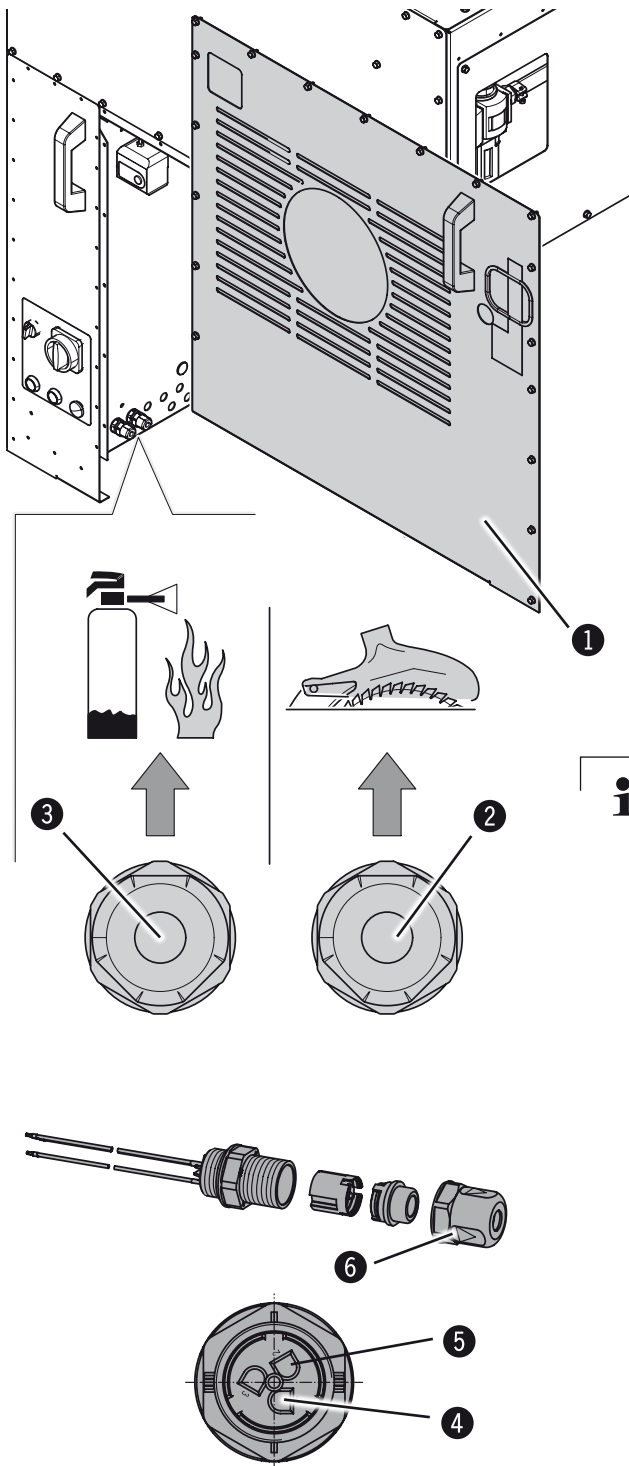
Setup and installation

6.5.1 Potential-free contact



**Warning! Danger! Electric current!**

Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.



The unit can be connected via the potential-free contact as follows:

- ② Woodworking machinery
- ③ Warning alarm system

**Connection to the dust extractor system:**

1. Loosen the screw and take off the covering lid.
2. Potential-free contact connection
  - Cut the wires to the same length.
  - Insert into the holes 1 and 2 and push the plugs together.
  - Screw on the plug's thumb screw.
  - The wires are automatically connected to the power supply via an insulation displacement connector.
3. Mount the cover plate on again.



**Note:**

Look at the enclosed wiring diagrams for further information.

- ① Cover
- ② / ③ Potential-free contact

**Potential-free contact**

- ④ Hole 1
- ⑤ Hole 2
- ⑥ Thumb screw

Fig. 6-8.1: Potential-free contact

## Setup and installation

### 6.5.2 Automatic Starting Device



**Warning! Danger! Electric current!**

Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.

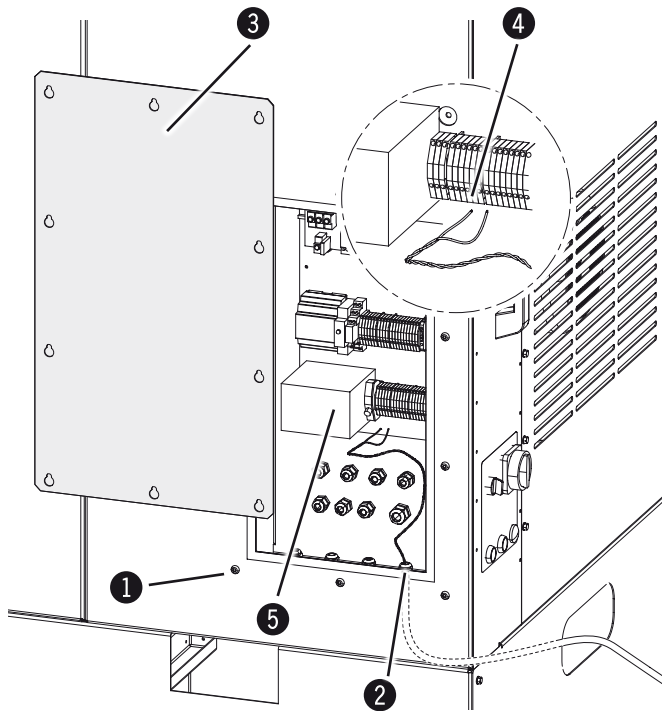


Fig. 6-8.2: Electrical connection - Automatik

#### Woodworking machinery / Gate valve

Electrical connection - see circuit plan

1. Loosen the screw and take off the covering lid. (10 x Screws)
2. Thread the power supply cord through the cable profile in the switch box.
3. Connect the woodworking machine's power supply cord to the terminals (see circuit plan).
4. Connect the gate valve's power supply cord to the terminals. (Option)
5. Mount the cover plate on again.

- ① Screws
- ② Cable guide
- ③ Cover plate

#### Terminal block (see circuit plan):

- ④ Woodworking machinery
- ⑤ Gate valve (Option)

### 6.6 Connect the compressed air supply



**Attention! Compressed air must be free of oil, condensate and particles according to: ISO 8573-1 5-4-3**  
Inner diameter min. 19 mm (3/4 inch) | Max. limit pressure: 7 bar  
> 7 bar: The pneumatic system is being vented.

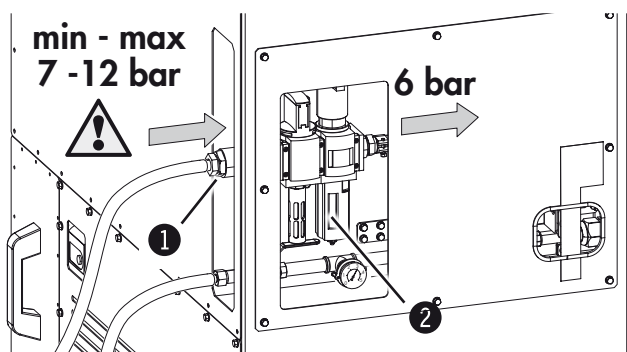


Fig. 6-9: Connect the compressed air supply

- ① Compressed air supply connection
- ② Condensation receptacle

The RL 250-350 has to be connected to a supply of compressed air whilst it is in operation.

Connect the customer-side feed line according to the data on the servicing unit (see pneumatic plan).

The pressure in the feed line must measure at least 7 bar (max. 12 bar). The pressure reducer adjustment has to be executed so that the manometer displays 6 bar.

Depending on the length of operating time, the condensation receptacle has to be emptied on a regular basis.

See chapter entitled: >Service<

## Setup and installation

### 6.7 Dust extractor operation



The device is, from the safety point of view, designed to absorb from:  
Woodworking machinery with an extraction connection smaller or equal:  
RL 250: 250 mm / RL 300: 300 mm / RL 350: 350 mm



**Attention! Risk of material damage!**  
Only operate the machine in ambient temperatures  
from +10° to +40° C. If the instructions are not followed, damage may occur during storage.

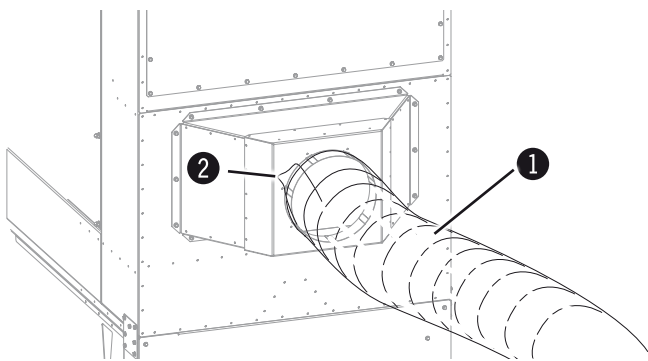


Fig. 6-10: Connection tube

- ① Coil hose
- ② Metal spiral casing

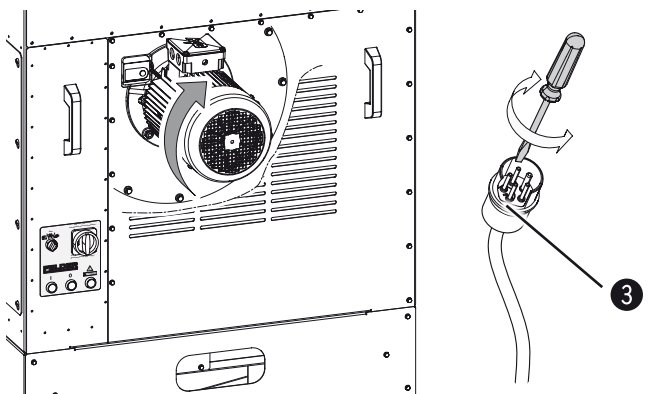


Fig. 6-11: Direction of the Motor rotation

- ③ Phase inverter (Option)

All protective covers must be properly attached before starting the unit.

Use a piece of so-called "coil hose" to connect your dust collector to the dust collecting system to avoid forwarding vibrations to the system.

You must now strip the metal spiral approx. 10 cm on both sides, mount the hose, with a pipe clamp, onto the wall of the extractor connector or tubing.

- The dust collector should be positioned as close as possible to the woodworking machine.
- It must stand on a level surface.

#### Check the direction of rotation before switching the machine on!

- Plug the device into the electric mains supply; switch on briefly.
- Direction of the Motor rotation: Clockwise
- To change the direction of rotation, (if vacuum output is very low) turn the phase inverter with a screwdriver by 180°.  
(see FELDER-catalogue)
- After connecting the extractor hose to the woodworking machine, first switch the dust collector on, then the woodworking machine.
- Reverse this sequence when switching the machines off.

#### Attention!

Do not change the location of the unit during operation.  
Wheel lock: press in and lock



**Attention!** If the direction of rotation of the drive motor is incorrect, for example as a result of the incorrect polarity, switch the machine off immediately, as the resulting suction output is not sufficient, and it prevents the machine from heating up (prohibited).

## Operation

# 7 Operation

## 7.1 Safety instructions

**Warning! Risk of injury!**

Improper operation may lead to severe physical injury or material damage.

For this reason, this work may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and in strict observance of all safety instructions.

**Before starting work:**

- Before commencing any work with the machine, inspect it to ensure that it is complete and in technically good condition.
- Ensure that there is sufficient space to work around the machine.
- Keep the work area orderly and clean. Components and tools that are not put in their correct place or put away may be the cause of accidents!
- Do not place any objects or tools onto the machine.
- Ensure that all safety devices have been installed properly.
- Check that the extraction hoses or extraction pipes are correctly installed.
- Check that unused extraction connections are closed properly.
- Visual check for leaks around filter (dust ejected from the unit cover). Renew the damaged filter immediately.
- Check that the chip bags are closed and are not damaged. Renew the damaged chip bags immediately.
- The machine has to be switched off when carrying out any work on the machine.
- Before switching on the machine, always check to make sure that there are no other persons in the immediate vicinity of the machine.

**During operation:**

- If a fault occurs, switch the machine off and secure it against being switched on again. Wait until the fan wheel has stopped.
- If a power failure occurs, switch off the main switch (Position „0“). This avoids the machine restarting once the power is back on.
- Do not switch off, circumvent or decommission protective and safety devices during operation.
- Ensure that no foreign objects (e.g. nails, screws) are vacuumed.
- Do not change the location of the unit during operation.

**When working on or with the machine, the following must always be worn by personnel:**

- Sturdy, tight-fitting clothing (tear-resistant, no wide sleeves).
- Protective footwear– To protect the feet from heavy falling objects and prevent sliding on slippery floors.
- Hearing protection– pour éviter des traumatismes auditifs.

**Warning! Danger of fire!**

Improper operation can lead to a fire breaking out.

**Therefore:**

- Only vacuum sawdust and woodshavings.
- Do not vacuum spark-generating objects (e.g. nails, screws etc.).
- Do not vacuum any inflammable waste. (e.g. cigarette ends, flying sparks, etc.)

**Attention! Risk of material damage!**

Only operate the machine in ambient temperatures from +10° to +40° C.

If the instructions are not followed, damage may occur during storage.

Operation

7.2 Inserting/replacing the chip bags



**Warning! Danger of dust inhalation:**



Always use a dust respirator (filter mask with a particle collector, Class 2) when carrying out this task. Prevent uninvolved people from being exposed to the dust pollution.

Dust and shavings must be disposed of according to the regulations of the country where the machine is installed.

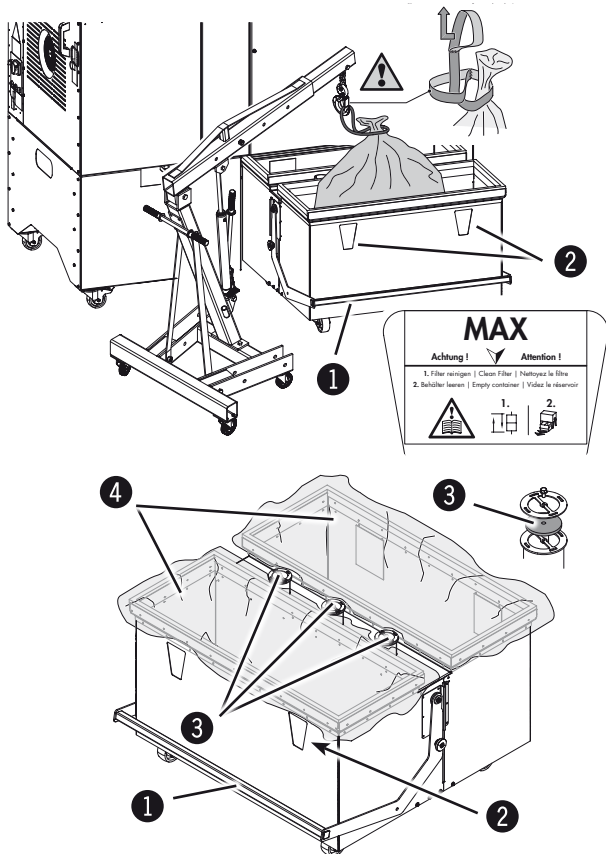
The chip bags may only be changed once the unit has been switched off!



**Warning! Heavy dead weights can easily cause an injury**

Keep handling auxiliaries at hand (Crane, Belts...)

Ensure that the lifting gear used has an adequate capacity and that the load is secured against lateral slippage!



The dust container should be emptied if full and after use!

At the very latest, the chip bags need to be replaced once the indicator windows are filled to the 3/4 mark (see sticker), or if the chip bags are damaged.

1. First clean the filters carefully!  
See chapter entitled: >Dedusting the filter<
2. Switch off the device and wait for the ventilator to come to a halt.
3. Switch off (Position "0") the main switch and secure.
4. After lifting lever, you can roll the entire container from under the unit.  
Insert one bag in each chamber so the bag rim extends approx. 3–4 cm over the edge of the dust container.  
Make sure the chip bags lie as smoothly as possible against the container walls.
5. Slide the container back under the unit and lower lever.
6. Check whether the seal between dust collector and unit is broken, replace if needed

- ① Lever
- ② Indicator window

Fig. 7-1: Inserting/replacing the chip bags

- ③ Extractor supports (Vacuum)  
Replacement filter: **Order no. 02.0.038**
- ④ Chip bags  
**Order no. 02.0.037**  
10 chip bags for RL 250 / 300 / 350



**Attention! Risk of material damage!**

The dust collector works with 2 chip bags. Both collecting bags must always be inserted into the unit.

The unit may not be operated without the chip bags!

Do not place the chip bags over the extractor supports!



## Operation

### 7.4 Electrics



**Note:**

The machine is equipped with a motor protection device that switches the machine off in the event of an overload.



**Attention! Risk of material damage!**

The machine may not be switched off more often than 3 times per minute using the red Off switch. The motor will become too hot!

i.e. the motor may be run at the nominal capacity and afterwards must run idle for 6 minutes.

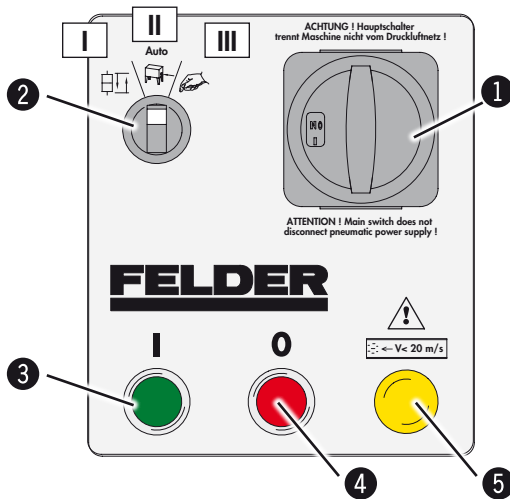


Fig. 7-2: Electrics

- ① Main switch
- ② Machine mode selector
- ③ Green push button
- ④ Red push button
- ⑤ Warning light: Filter contents level monitoring

1. Switch the machine on/off with the main switch.

2. Machine mode selector

**Switch position I**

Filter cleaning cycle

The in-built filter elements are cleaned automatically. See chapter entitled: Cleaning the filter

**Switch position II**

Automatic operation

The extraction device runs automatically once a wood-working machine has been started.

See chapter entitled: Automatic Starting Device

**Switch position III**

Manual operation

- Start device: Green push button
- Stop device: Red push button



## Operation

### 7.4.1 Dedusting the filter



**Attention!**

As soon as the warning light on the front of the machine lights up, switch the machine off with the red switch to activate the filter cleaning cycle.

The main switch has to remain switched on.

The filter is cleaned fully automatically via the control depending on the running time of the ventilating fan, and/or how full the filter is. The cleaning process in the operating pauses also takes place fully automatically. The pause periods between the cleaning times are predetermined and may not be adjusted by the operator. The cleaning process can also be triggered manually if required.

If the clear air dust extractors are mainly providing suction for machines, which produce a lot of dust (stroke sanders or wide-belt sanders), we would recommend that after 30 minutes of continuous use that the extraction system is turned off for regeneration purposes. The cleaning process then begins automatically and only takes 2 minutes. The clean air dust extraction unit is then fully operational again.



**Note: Filter cleaning cycle**

Time interval until the the start of dedusting the filter: 30 minutes

Change the value (10 minutes): Please contact the FELDER customer service!

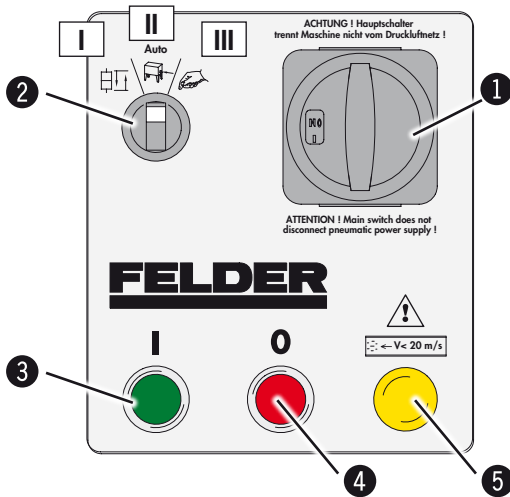


Fig. 7-5: Pneumatic filter cleaning device

- ① Main switch
- ② Machine mode selector
- ③ Green push button
- ④ Red push button
- ⑤ Warning light: Filter contents level monitoring

**Manual filter cleaning cycle - Switch position I:**

1. Switch off the device and wait for the ventilator to come to a halt.
2. Switch position I
3. Filter cleaning cycle:  
The filter cleaning cycle is started immediately.

**Automatic filter cleaning cycle - Switch positions II and III:**

The automatic filter cleaning cycle is activated if:

1. the device has been operating for at least half an hour, or
2. the total time which the machine has been operating exceeds half an hour, or
3. as soon as the filter is clogged and the warning light on the front of the machine lights up.

The in-built filter elements will be cleaned automatically the next time the machine has come to a standstill.

## Operation

### 7.4.2 Electrics - Optional equipment: Rotary feeder



**Note:**

**Warning light lights up: Switch the device off!**

A foreign object is blocking the scraper of the mini silo.



**Warning! Danger of dust inhalation:**

Always use a dust respirator (filter mask with a particle collector, Class 2) when carrying out this task. Prevent uninvolved people from being exposed to the dust pollution.

Dust and shavings must be disposed of according to the regulations of the country where the machine is installed.

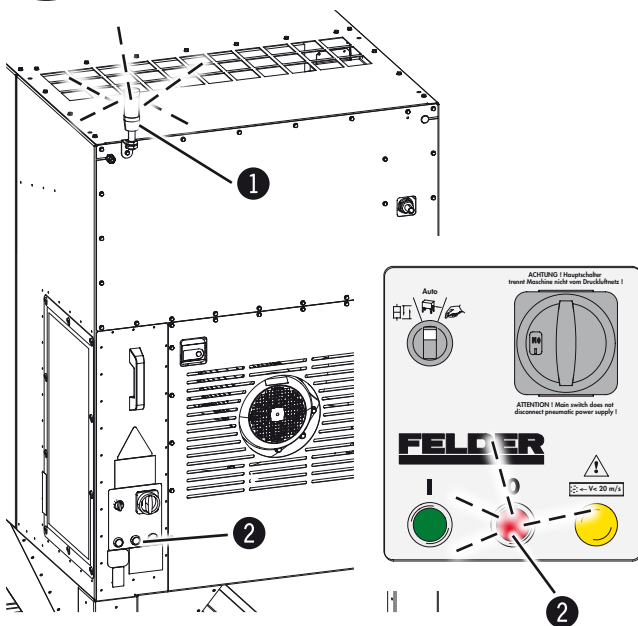


Fig. 7-3: Warning light lights up

**Warning light lights up:**

1. Switch off the device and wait for the ventilator to come to a halt.
2. Switch off (Position "0") the main switch and secure. Pull out the mains plug!
3. Loosen the screw and take off the covering lid
4. Release blockade (e.g. wedged wood)
5. Fit and screw the covering lid back on.

**Exit error, restart machine**

1. Plug the device into the electric mains supply. Switch on the main switch ("I" position).
2. Red push button (LED flashes) press and hold: approx. 5 seconds
3. Prepare the machine to operate
4. Start device: Hold down and then release the green push button.

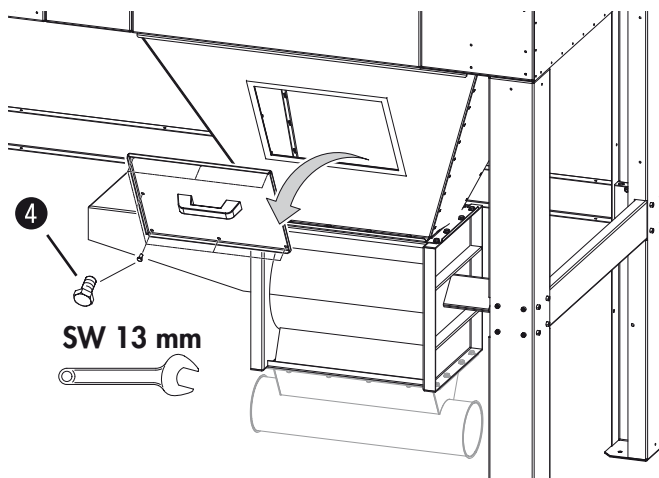


Fig. 7-4: Remove the cover lid.

- ① Warning light: Remove blockage
- ② Red push button (LED flashes)
- ③ Cover
- ④ Screws (6 pcs.)



**Warning! Risk of injury!**

Improper operation may lead to severe physical injury or material damage. during operation: Do not release the cover!

Operation

### 7.4.3 Monitoring the dirt accumulation on the filter

**!** Attention material damage! This setting may not be modified, however if required, it may only be executed by a person authorised to carry out this task.

Please contact the FELDER KG service department, if problems or a fault- function should occur!

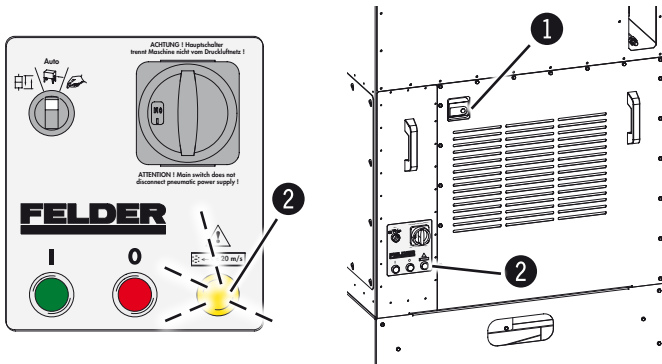


Fig. 7-6: Cleaning the filter

- ① Differential pressure switch
- ② Warning light: Filter contents level monitoring

The pressure switch monitors the degree of soiling of the filter through the differential pressure measurement.

Your unit is equipped with filter cartridges (16 pc, RL 350 - 23 pc).

Dirt accumulation on the filter affects the vacuum power of the dust collector.

The filter must be cleaned before every bag change, at the latest when the filter is clogged.

In this case, a warning light illuminates at the on/off switch or on the front of the machine.

## Service

### 8 Service

#### 8.1 Safety instructions



**Warning! Risk of injury!**

Improper maintenance can cause serious injury or damage. For this reason, this work may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and in strict observance of all safety instructions.

- Before beginning any maintenance work on the machine, switch it off and secure it against accidentally being switched on again.
- Ensure that there is sufficient space to work around the machine.
- Keep the work area orderly and clean. Components and tools that are not put in their correct place or put away may be the cause of accidents!
- Following the maintenance work, reinstall the guards and check that they are functioning properly.

#### 8.2 Maintenance schedule



**Note: Safety regulations**

Notes are to be kept on the annual general revision. It must contain the inspection date, deficiencies found and name of the inspector. (See inspection log in appendix)

**The machine must, of course, be repaired if and when required!**

Interval	Task to accomplish
Daily	Visual check whether unit or parts are damaged
	Check whether power cable is damaged
	Check whether dust bags are inserted
	Fire extinguisher: Check display pressure
	Check the compressed air supply
Monthly	Visual check for leaks around filter (dust ejected from the unit cover) Repair: Remove both filter plates and insert the new filters. See chapter entitled >8.7 Changing the filter<
	Check whether the minimum exhaust volume control is functioning correctly
	Basic extractor: Check the extractor hood, clean if required
Twice a year	Compressed air container visual check (for corrosion)
	Empty the condensation receptable
	Check whether the seal between dust collector and unit is broken, replace if needed
Annually	Main inspection and air flow rate control *)
Every two years	Extinguisher: The fire extinguisher must be checked by an authorized specialist company

\*) We recommend this be performed by FELDER trained specialists.

Service

### 8.3 Motor and electrical equipment

**i** **Note:** The motor and electrical equipment are maintenance free. Be sure the motor can always cool sufficiently, i.e. regularly clean any chips and dust from the fan cover.

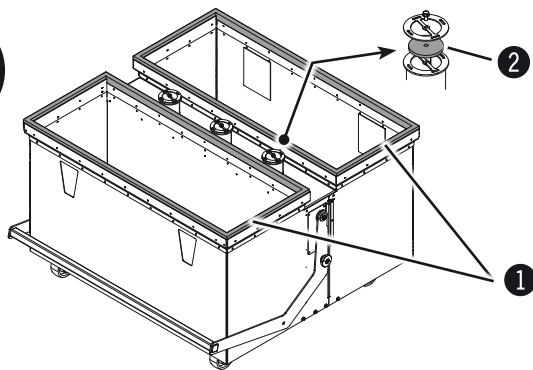
### 8.4 Dust collector / Seals



**Warning! Danger of dust inhalation:**

Always use a dust respirator (filter mask with a particle collector, Class 2) when carrying out this task. Prevent uninvolved people from being exposed to the dust pollution.

The entire unit should be cleaned of dust and chips on a weekly basis.  
Remove the chip collector box to access the inside of the unit.



The seal between the chip container and dust collector must be tight, otherwise the chip bags will be sucked upwards and the unit will not function correctly! Check the seal periodically and replace if needed.

- ① Seal
- ② Extractor supports (Vacuum)  
Replacement filter: **Order no. 02.0.038**

Fig. 8-1: Seal

### 8.5 Fire extinguisher: Extinguisher / Water

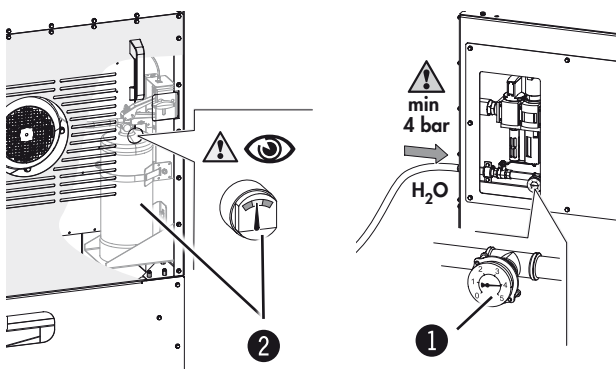


Fig. 8-2: Fire extinguisher

- ① Water pressure gauge extinguisher
- ② Extinguisher

**Water sprinkler:**

The fire extinguisher system is free of maintenance and must not be taken apart by the user.

Check display pressure:  
Interval: Daily

**Extinguisher:**

Maintenance and servicing: Every two years see the following pages

Check display pressure:  
Interval: At least every six months

Please contact the FELDER KG service department, if problems or a fault- function should occur!

## Service

### 8.6 Extinguisher: Maintenance and servicing (Every two years)



**Warning! Risk of injury! / Risk of material damage!**

The following tasks may only be carried out by qualified and skilled personnel and according to the safety regulations.

We recommend this be performed by FELDER trained specialists.



**Attention! Risk of material damage!**

At the installation ensure that connection opening is complete (Part number: 250INL)

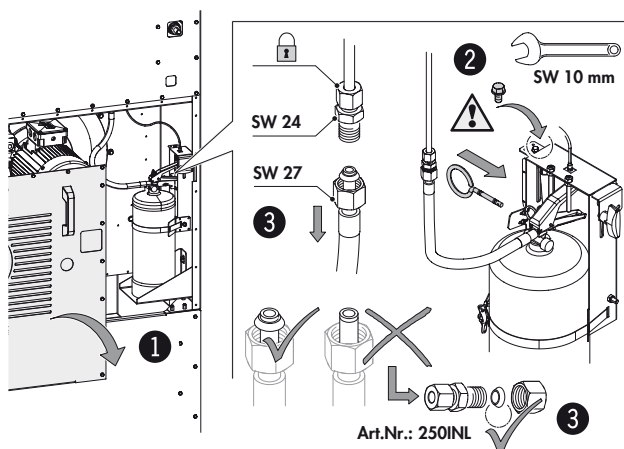


Fig. 8-3: Fire extinguisher

- ① Cover
- ② Securing bolt + Retaining ring
- ③ Connection opening **Part number: 250INL**

**Execute the following instructions exactly!**

See next page (Assembly instructions)

1. Switch the device off and pull out the power plug. Take off the covering lid.
2. Secure the extinguisher to prevent it from discharging. (Retaining ring + Securing bolt)
3. Release the screw fitting, Take the extinguisher out of the machine.
4. The fire extinguisher must be checked by an authorised specialist company.
5. To reassemble, follow the instructions in the reverse order.

Please contact the FELDER KG service department, if problems or a fault- function should occur!

### 8.7 Safety cover (Check every six months)



**Attention! Safety regulations**

Ensure that this cover is always easy to move.

Closes the vacuum connector if dust should explode.

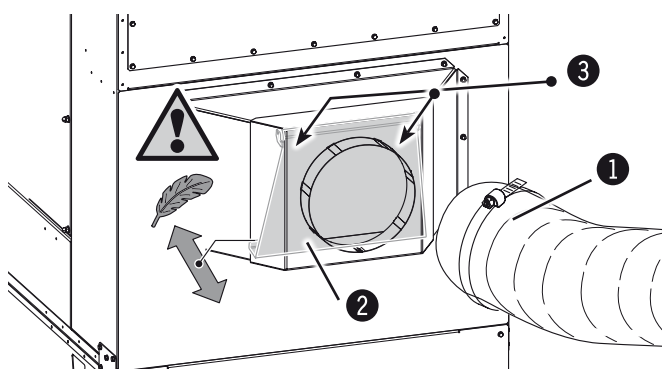
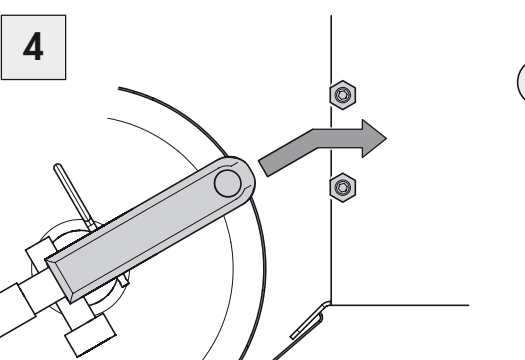
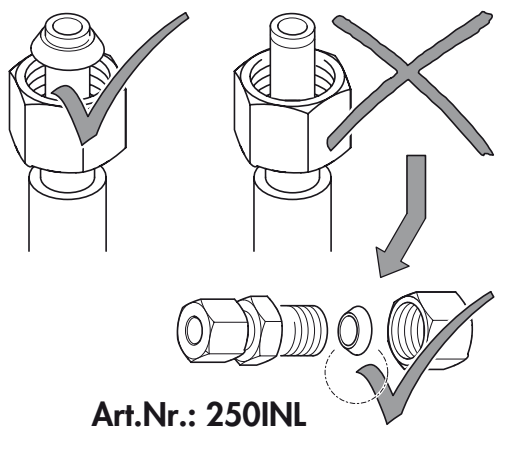
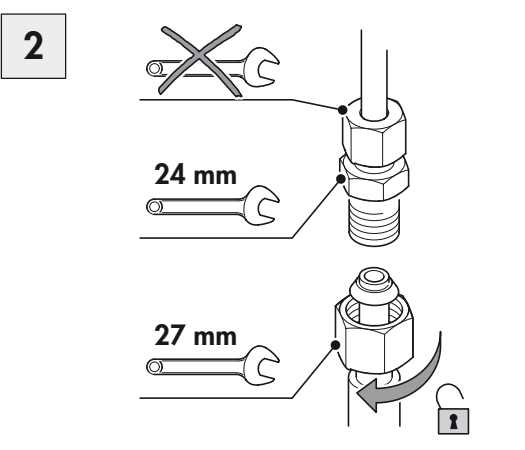
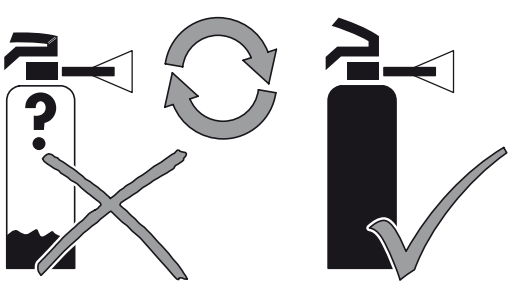
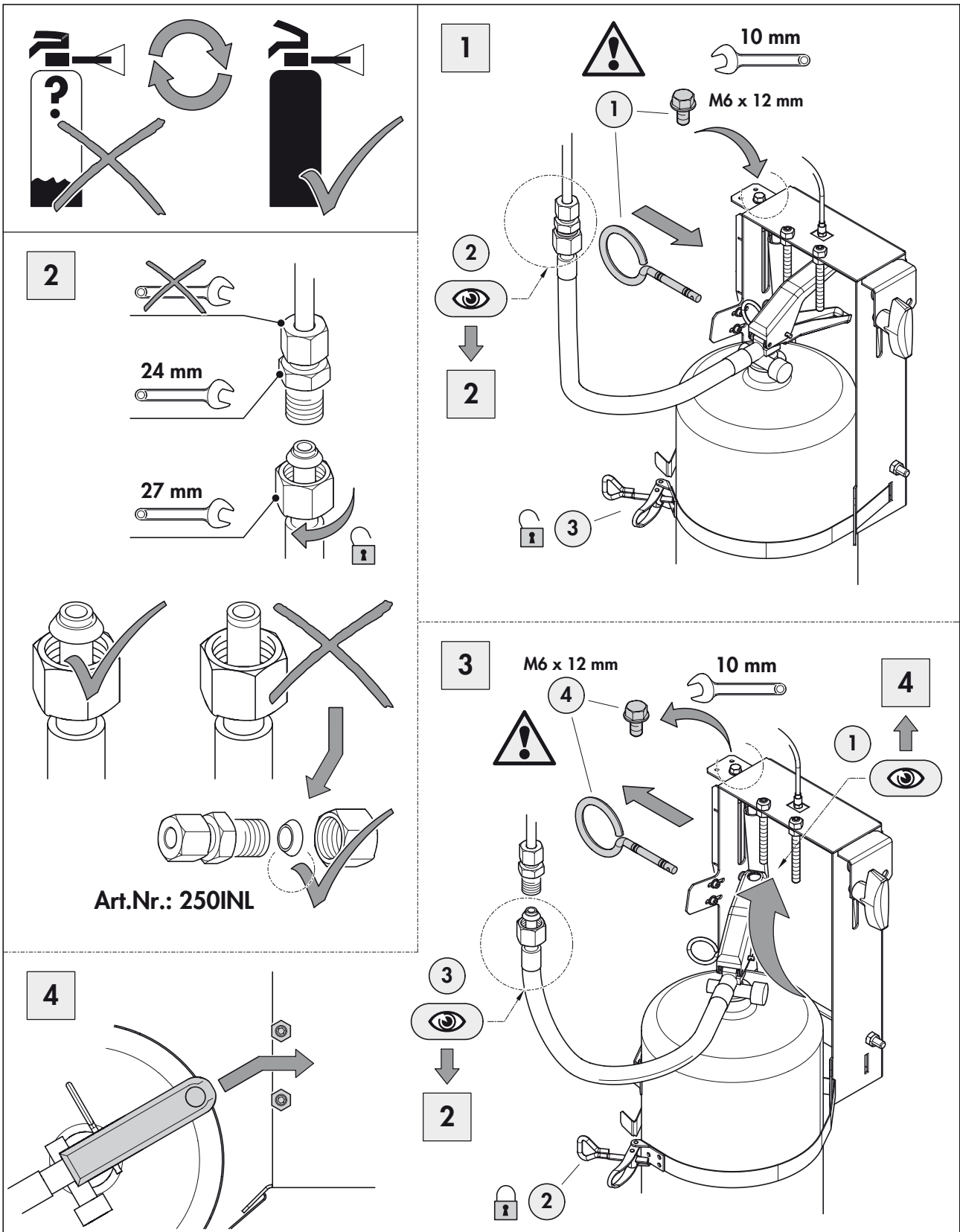


Fig. 8-4: Safety cover

1. Release the extractor hose from the extraction port.
2. Check the function; the safety cover have to fall back in place after having been lifted up.
3. Attach vacuum hose to the vacuum support using the hose clamp

- ① Vacuum hose
- ② Safety cover
- ③ Remove dust and shavings

Service



Überprüfung des Pulver Feuerlöscher: alle 2 Jahre  
 Checking the powder fire extinguisher: every 2 years  
 Contrôle de la extincteurs à poudre: tous les 2 ans  
 Controllo della estintore a polvere: ogni due anni

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			Stand 8.6.2016
Gez. HG			435-31061

## Service

### 8.8 Empty the condensation receptable

- !** Attention! Risk of material damage!  
Never fill the condensation receptable with lubricant oils!

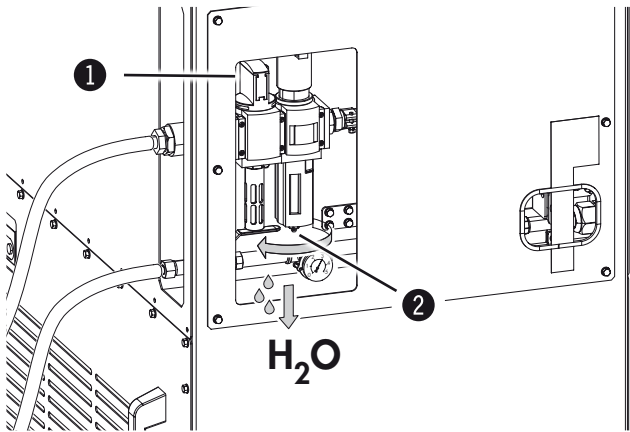


Fig. 8-4: Drain plug

- 1 Manual start-up valve
- 2 Drain plug

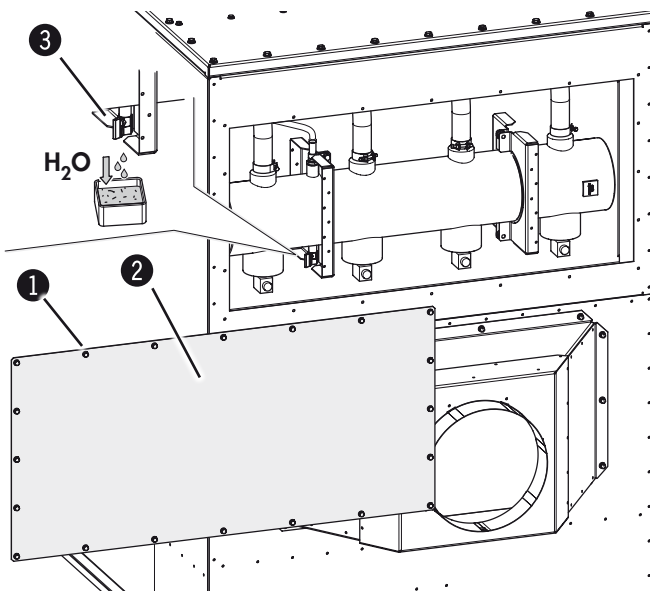


Fig. 8-5: Drain plug

- 1 Nuts (Cover)
- 2 Cover (Guard plate)
- 3 Drain plug

1. Switch the device off and pull out the power plug.
2. Stop the pneumatic supply.
3. Remove the machine from the compressed air supply system and vent the remaining compressed air.  
Manual start-up valve:  
Turn the knob at a right angle to the direction of flow.

#### Pressure connection point including regulator, filter and water blocker:

4. Twist the drain plug on the condensation receptable.
5. Once the condensation receptable is empty and compressed air no longer escapes, close the drain plug again.

#### Compressed air tank:

4. Loosen and remove the hex nuts.  
Take off the covering lid.
5. Put a container below the drain cock.  
Twist the drain plug on the condensation receptable.
6. Once the condensation receptable is empty and compressed air no longer escapes, close the drain plug again.
7. Compressed air container visual check (for corrosion).  
Reassemble the cover.



## 8.9 Changing the filter



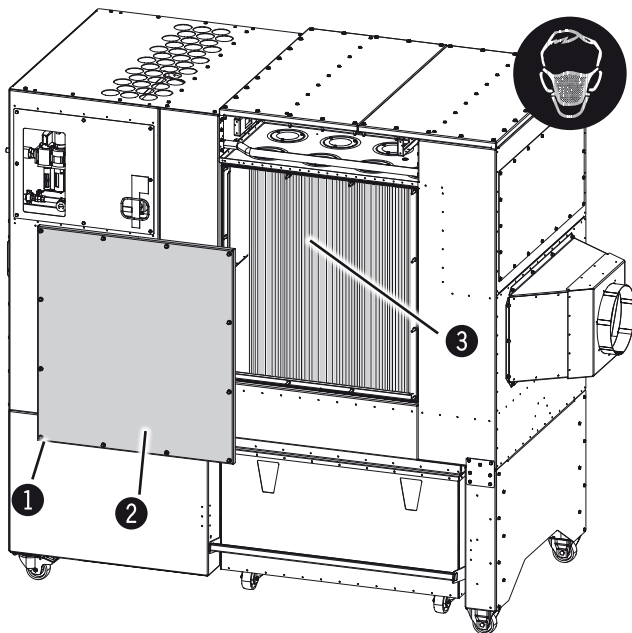
**Note:**

After a certain period of time, depending on the type and amount of vacuumed material, it is no longer possible to clean the filters as the filter pores have become clogged with very fine dust. It is then necessary to replace the filters.



**Only insert original and intact filter cartridges!**

**Only carry out this task with a dust respirator (filter mask with particle filter, Class 2)!**



First clean the filters carefully!

1. Switch the device off and pull out the power plug.
2. Loosen and remove the hex nuts.  
Take off the covering lid (on both sides)
3. The cartridges are mounted with a screw thread. Vacuum the cartridges with an appropriate (B1 at least) industrial vacuum (accordint to EN 60335-2-69, dust class M). Insert the collecting containers during the cleaning process to collect the falling dust.
4. Control the individual cartridges for damage.
5. Remove the filter cartridges and insert the new filters.  
**Order no. Filter cartridge (1 pcs.)**  
02.0.467 - for wooden materials  
02.0.468 - for plastic materials
6. reassemble the cover (on both sides)

Fig. 8-3: Changing the filter

- 1 Nuts (Cover)
- 2 Cover (Guard plate)
- 3 Filter cartridge  
RL 250-300: 16 pcs.  
RL 350: 23 pcs.



**Warning! Danger of dust inhalation:**

Always use a dust respirator (filter mask with a particle collector, Class 2) when carrying out this task. Prevent uninvolved people from being exposed to the dust pollution.

Dust and shavings must be disposed of according to the regulations of the country where the machine is installed.



## Annex

### 8.10 Dust hazard prevention

Using non-reusable and sealable chip sacks enables a relatively dust-free disposal. To reduce the risk of danger, comply with the information about waste disposal in the operating manual (i.e. wearing P2 dust respirators).



**Attention: Risk:** it is possible to breathe in dust when closing and changing the dust collecting sack (chip sack). If the waste disposal information in the operating manual is not heeded (i.e. wearing P2 dust respirators), dust may be inhaled.



#### 8.10.1 Removing the collected materials

Dust and woodshavings are collected into the collecting containers during the vacuum process. The level indication is controlled on the level tube. Only a total volume of 500 litres of dust may be stored. If during the level control, a collecting container is shown to be full (corresponds to 150 L), switch off the device. By pressing the cleaning key, a jet of compressed air is triggered, which removes dust and woodshavings from the filter. This is to ensure that dust and woodshavings will not fall out of the device once the collecting containers have been removed. Please note that there are three cleaning cycles! Wait for the third jet of compressed air! Release the collecting containers onto the floor by opening the locking clamp and roll them forwards.

The part of the plastic sack folded over the edge of the collecting container is removed carefully, twisted and closed. The sack is removed carefully and disposed of according to the local regulations.

When inserting a new sack, ensure that the bag lies smoothly against the walls and that there are as few creases as possible on the upper edge of the collecting container!



**Warning! Danger of dust inhalation:**

Always use a dust respirator (filter mask with a particle collector, Class 2) when carrying out this task. Prevent uninvolved people from being exposed to the dust pollution.

Avoid ignition sources and electrostatic charging.

Only use original sacks.

Operating the machine without the filling sacks is forbidden as dust and woodshavings can clog the vacuum differential duct!

Dust and shavings must be disposed of according to the regulations of the country where the machine is installed.



**Annex**

**8.11 Faults, causes and repairs**

<b>Fault</b>	<b>Cause</b>	<b>Repair</b>
Machine does not start	Main switch at setting „0“	Check switch position
	Error in the electrical contact.	Check the electrical connection (connecting lead, fuses).
	Fire extinguisher has been triggered (case of fire)	After the fire extinguisher was triggered a service by a FELDER technician is mandatory!
Warning light lights up (Differential pressure switch / Control panel)	The pressure switch monitors the degree of soiling of the filter through the differential pressure measurement.	Clean the filter, Renew the filter. Attention material damage! This setting may not be modified, however if required, it may only be executed by a person authorised to carry out this task.
The vacuum performance is sinking.	Dirty filter.	Clean the filter.
	Filter defect	Renew the filter.
if vacuum output is very low	Incorrect direction of rotation (Drive motor, Fan propeller)	Change direction of the Motor rotation
The chips are falling out of the bag.	Filter defect	Renew the filter.
	The chipbag has a defect.	Renew the chip bag.
The fan wheel is running incorrectly.	Unclean / dirty fanwheel	Contact service technician
Vibrations	Use a piece of so-called "coil hose" to connect your dust collector to the dust collecting system to avoid forwarding vibrations to the system.	
the chip bags will be sucked upwards	The seal between the chip container and dust collector must be tight, otherwise the chip bags will be sucked upwards and the unit will not function correctly! Check the seal periodically and replace if needed.	

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*Annex*

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**9 Annual general revision inspection certificate**

Date	Examiner	Detected/eliminated defects	Signature:

**Annex**

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**FELDER**<sup>®</sup>

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