# Table of Contents

1 Notes on the Manual ............................................................................................................. 6
   1.1 Disclaimer ......................................................................................................................... 6
   1.2 Copyright ......................................................................................................................... 6
   1.3 Explanations of the Safety Instructions ........................................................................... 7
   1.4 General Safety Instructions ............................................................................................. 8
   1.5 Repairs ............................................................................................................................ 9

2 Confirmation Form for the Managing Operator ................................................................. 10

3 Technical Data ..................................................................................................................... 11
   3.1 Protective Equipment ....................................................................................................... 11
   3.2 Degree of Protection ....................................................................................................... 11
   3.3 Emissions ......................................................................................................................... 11
   3.4 Electromagnetic Compatibility (EMC) ............................................................................. 11
   3.5 Rated Power .................................................................................................................... 11
   3.6 Dimensions and Weight ................................................................................................. 11
   3.7 Required Floor Space ..................................................................................................... 11
   3.8 Receptacle Volume .......................................................................................................... 12
   3.9 Feed Grain Size .............................................................................................................. 12
   3.10 Drive power .................................................................................................................... 12
   3.11 Pressure Force ............................................................................................................... 12

4 Packaging, Transport and Installation .............................................................................. 13
   4.1 Packaging ......................................................................................................................... 13
   4.2 Transport ........................................................................................................................ 13
   4.3 Temperature Fluctuations and Condensation ................................................................. 13
   4.4 Conditions for the Installation Site .................................................................................. 14
   4.5 Electrical Connection ...................................................................................................... 14
   4.6 Type Plate Description ................................................................................................... 15
   4.7 Removing the Transportation Aid .................................................................................. 16

5 First Commissioning .......................................................................................................... 18

6 Operating the Device ......................................................................................................... 20
   6.1 Use of the Device for the Intended Purpose .................................................................... 20
   6.2 Switching On / Off .......................................................................................................... 20
   6.3 Emergency Unlocking ..................................................................................................... 20
   6.4 Production of a Pellet ...................................................................................................... 21
       6.4.1 Free pressing / Pressing in an aluminium cup ......................................................... 21
       6.4.2 Pressing in the steel ring ......................................................................................... 27
       6.4.3 Reusing the steel ring .............................................................................................. 28
   6.5 Programme Mode ........................................................................................................... 29
       6.5.1 Changing programs ................................................................................................. 29
       6.5.2 Edit program ............................................................................................................ 30
       6.5.3 Altering settings ....................................................................................................... 31

7 Error Messages and Information Notes ............................................................................ 33
   7.1 Error Messages ............................................................................................................... 33
   7.2 Information Notes .......................................................................................................... 34

8 Return for Service and Maintenance .................................................................................. 35

9 Cleaning, Wear and Maintenance ....................................................................................... 36
   9.1 Cleaning ......................................................................................................................... 36
       9.1.1 Cleaning the housing .............................................................................................. 36
       9.1.2 Cleaning the pressure chamber .............................................................................. 36
   9.2 Wear ............................................................................................................................... 39
   9.3 Maintenance ................................................................................................................... 39

10 Accessories ....................................................................................................................... 39

11 Disposal .............................................................................................................................. 40
Notes on the Manual

12 Index ................................................................................................................. 41
1 Notes on the Manual

Dear user,

please read the following manual referring to this device carefully before starting any installation, commissioning and operation.

This manual is a technical guide on how to operate the device safely and it contains all the information required for the areas specified in the table of contents. This technical documentation is a reference and instruction manual. The individual chapters are complete in themselves. Familiarity (of the respective target groups defined per area) with the relevant chapters is a precondition for the safe and appropriate use of the device.

This manual does not contain any repair instructions. In case of any obscurities or questions with regards to this document or the device, as well as if faults arise or repairs are necessary, please contact your supplier or get in touch with Retsch GmbH directly.

Application-technical information relating to samples to be processed are not or only to a certain extend included. However, more information thereof can be found in the internet on the webpage of the respective device on the Retsch GmbH homepage (http://www.retsch.com).

Revision status:
This document revision 0001 refers to the manual "Pellet Press PP 35" in compliance with the Directive of Machinery 2006/42/EC.

1.1 Disclaimer

This document has been prepared with due care. Technical and software based modifications are reserved. No liability is assumed for data loss, personnel injury or damage to the device which results from the failure to observe the instructions and/or warnings in this document.

1.2 Copyright

This document or parts of it or its content may not be reproduced, distributed, edited or copied in any form without prior written permission of Retsch GmbH. Damage claims shall be asserted in the case of infringements.
1.3 Explanations of the Safety Instructions

In this document the following **signs and symbols** are being used:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠️</td>
<td>Reference to a recommendation and/or an important information</td>
</tr>
<tr>
<td>➔</td>
<td>Reference to a chapter, table or figure</td>
</tr>
<tr>
<td>🔴</td>
<td>Action instruction</td>
</tr>
<tr>
<td>[Name]</td>
<td>Software menu function</td>
</tr>
<tr>
<td>(Name)</td>
<td>Software checkbox</td>
</tr>
</tbody>
</table>

In this document the following **safety instructions** warn of possible dangers and damages:

**DANGER**

Type of danger / personal injury
Source of danger
- Possible consequences if the dangers are not observed.
  - Instructions and information on how the dangers are to be avoided.

Life-threatening personal injuries may result from disrespecting the safety instruction for danger. There exists a very high risk of hazard of life or permanent injury to personnel. Additionally, in continuous text or action instructions the signal word **⚠️ DANGER** is used.

**WARNING**

Type of danger / personal injury
Source of danger
- Possible consequences if the dangers are not observed.
  - Instructions and information on how the dangers are to be avoided.

Serious personal injuries may result from disrespecting the warning notice. There exists an elevated risk of an accident or severe injury to personnel. Additionally, in continuous text or action instructions the signal word **⚠️ WARNING** is used.

**CAUTION**

Type of danger / personal injury
Source of danger
- Possible consequences if the dangers are not observed.
  - Instructions and information on how the dangers are to be avoided.

Moderate or mild personal injuries may result from disrespecting the safety instruction for caution. There exists a medium or low risk of an accident or injury to personnel. Additionally, in continuous text or action instructions the signal word **⚠️ CAUTION** is used.

**NOTICE**

Type of property damage
Source of property damage
- Possible consequences if the notices are not observed.
  - Instructions and information on how the property damages are to be avoided.
Property damages may result from disrespecting the notice. However, there exists no risk of an injury to personnel. Additionally, in continuous text or action instructions the signal word NOTICE is used.

1.4 General Safety Instructions

⚠️ CAUTION

Read the manual
Non-observance of the operating instructions
- The non-observance of this manual can result in personal injuries.
- **Read the manual before using the device.**

Target group:
All persons concerned with this device in any form.

This device is a modern, high performance product from Retsch GmbH and complies with the state of the art. Operational safety is given if the device is handled for the intended purpose and attention is given to this technical documentation.

Safety manager:
The managing operator himself must ensure that the people entrusted with working on the device...
- have noted and understood all the regulations regarding safety,
- are familiar before starting work with all the operating instructions and specifications for the target group relevant to their work,
- have unrestricted and free access to the technical documentation of this device,
- are familiar before starting work with the safe handling of the device and its use for its intended purpose either by verbal instructions from a competent person and/or by means of this technical documentation.

⚠️ CAUTION Improper operation can result in personal injuries and material damage. The managing operator himself is responsible for his own safety and that of his employees. The managing operator himself is responsible that no unauthorised person has access to the device.

⚠️ CAUTION Persons who are under the influence of intoxicating substances (pharmaceuticals, drugs, alcohol), fatigue or health disorders must not operate the device.

⚠️ CAUTION

Changes to the device
Improper modifications
- Changes to the device can lead to personal injuries.
- **Do not make any modification to the device.**
- **Use spare parts and accessories that have been approved by Retsch GmbH exclusively.**
NOTICE

Changes to the device
Improper modifications

- The conformity declared by Retsch GmbH with the European Directives will lose its validity.
- Any warranty claims will be terminated.

- Do not make any modification to the device.
- Use spare parts and accessories that have been approved by Retsch GmbH exclusively.

1.5 Repairs

This manual does not contain any repair instructions. For safety reasons, repairs may only be carried out by Retsch GmbH or an authorised representative or by qualified service technicians.

In case of repair, please inform...

...the Retsch GmbH representative in your country,
...your supplier, or
...Retsch GmbH directly.

Service address:
2 Confirmation Form for the Managing Operator

This manual contains essential instructions for operating and maintaining the device which must be strictly observed. It is essential that they be read by the user and by the qualified staff responsible for the device before the device is commissioned. This manual must be available and accessible at the place of use at all times.

The user of the device herewith confirms to the managing operator (owner) that he has received sufficient instructions about the operation and maintenance of the system. The user has received the manual, has read and taken note of its contents and consequently has all the information required for safe operation and is sufficiently familiar with the device.

The managing operator should for legal protection have the user confirm the instruction about the operation of the device.

<table>
<thead>
<tr>
<th>I have read and taken note of the contents of all chapters in this manual as well as all safety instructions and warnings.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>User</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surname, first name (block letters)</td>
</tr>
<tr>
<td>Position in the company</td>
</tr>
<tr>
<td>Place, date and signature</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Managing operator or service technician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surname, first name (block letters)</td>
</tr>
<tr>
<td>Position in the company</td>
</tr>
<tr>
<td>Place, date and signature</td>
</tr>
</tbody>
</table>
3 Technical Data

3.1 Protective Equipment

The PP 35 door closure is monitored.
The device can only be started when the door is closed

3.2 Degree of Protection

- IP 40

3.3 Emissions

Noise measurement in conformance to DIN 45635-31-01-KL3
The noise characteristic levels are mainly caused by the hydraulic unit at max. pressure.
Workplace-related emissions level LpAeq = up to 60 dB(A)

3.4 Electromagnetic Compatibility (EMC)

EC Directive Electromagnetic Compatibility 2004/108/EC:
EN 61000-3-2/-3 Electromagnetic Compatibility (EMC).
EN 61236 Electrical equipment for measurement, control and laboratory use – EMC
requirements, in conjunction with EN 61000.
EN 55011 Limits and methods of measurement for radio-frequency disturbance in industrial,
scientific and medical equipment.

3.5 Rated Power

- 100 W

3.6 Dimensions and Weight

- Housing height: 495 mm
- Housing width: 335 mm
- Housing depth: 570 mm
- Pressing chamber max. height: 270 mm
- Pressing chamber min. height: 110 mm
- Pressing chamber width: 220 mm
- Pressing chamber depth: 220 mm
- Weight: 120 kg
- Oil type: Hydraulic oil Lg22

3.7 Required Floor Space

Approx. 350mm x 600 mm. It is important to ensure that the device is accessible from the back.
3.8 Receptacle Volume

Depending on the material approximately: 8 – 12 ml
Depending on the PP 35 design, the following ring sizes or aluminium cups can be used:

<table>
<thead>
<tr>
<th>Ring size</th>
<th>Aluminium cup size</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 /32-mm dia.</td>
<td>40-mm dia.</td>
</tr>
<tr>
<td>40 /35-mm dia.</td>
<td>32-mm dia.</td>
</tr>
</tbody>
</table>

**NOTE**
For the ring, the pressure force is limited to 15 t.
For the 32-mm-dia. aluminium cup, the pressure force is limited to 25 t.
For the 40-mm-dia. aluminium cup, the pressure force is limited to 35 t.

3.9 Feed Grain Size

Maximum grain size: < 100μm

3.10 Drive power

- 100 W

3.11 Pressure Force

The PP 35 pressure force is 0 – 35 t.
1. For the ring, the pressure force is limited to 15 t
   For the 32-mm-dia. aluminium cup, the pressure force is limited to 25 t.
   For the 40-mm-dia. aluminium cup, the pressure force is limited to 35 t
4 Packaging, Transport and Installation

4.1 Packaging

The packaging has been adapted to the mode of transport. It complies with the generally applicable packaging guidelines.

**NOTICE**

Storage of the packaging
- In the event of a complaint or return, the warranty claim may be endangered if the packaging is inadequate or the device has not been secured correctly.
  - Keep the packaging for the duration of the warranty period.

4.2 Transport

**NOTICE**

Transport
- Mechanical or electronic components may be damaged.
  - The device may not be knocked, shaken or thrown during transport.

**NOTICE**

Complaints
Incomplete delivery or transportation damage
- The forwarding agent and Retsch GmbH must be notified immediately in the event of transportation damage. It is otherwise possible that subsequent complaints will not be recognised.
  - Please check the delivery on receipt of the device for its completeness and intactness.
  - Notify your forwarding agent and Retsch GmbH within 24 hours.

4.3 Temperature Fluctuations and Condensation

**NOTICE**

Temperature fluctuations
The device may be subject to strong temperature fluctuations during transport (e.g. aircraft transport)
- The resultant condensed water may damage electronic components.
  - Wait before commissioning until the device has been acclimatised.

Temporary storage:
Also in case of an interim storage the device must be stored dry and within the specified ambient temperature range.
4.4 Conditions for the Installation Site

- Installation height: max. 2000 m above sea level
- Ambient temperature: 5 °C – 40 °C

**NOTICE**

**Ambient temperature**

Temperatures outside the permitted range

- Electronic and mechanical components may be damaged.
- The performance data alter to an unknown extent.
- **Do not exceed or fall below the permitted temperature range (5 °C to 40 °C ambient temperature) of the device.**

- Maximum relative humidity < 80 % (at ambient temperatures ≤ 31 °C)

For ambient temperatures \( U_T \) between 31 °C and 40 °C, the maximum relative humidity value \( L_F \) linearly decreases according to \( L_F = -(U_T - 55) / 0.3 \):

<table>
<thead>
<tr>
<th>Ambient temperature</th>
<th>Max. rel. humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 31 °C</td>
<td>80 %</td>
</tr>
<tr>
<td>33 °C</td>
<td>73.3 %</td>
</tr>
<tr>
<td>35 °C</td>
<td>66.7 %</td>
</tr>
<tr>
<td>37 °C</td>
<td>60 %</td>
</tr>
<tr>
<td>39 °C</td>
<td>53.3 %</td>
</tr>
<tr>
<td>40 °C</td>
<td>50 %</td>
</tr>
</tbody>
</table>

**NOTICE**

**Humidity**

High relative humidity

- Electronic and mechanical components may be damaged.
- The performance data alter to an unknown extent.

- **The relative humidity in the vicinity of the device should be kept as low as possible.**

4.5 Electrical Connection

**WARNING** When connecting the power cable to the mains supply, use an external fuse that complies with the regulations applicable to the place of installation.

- Check the type plate for details on the necessary voltage and frequency for the device.
- The listed values must agree with the existing mains supply.
- Only use the supplied power cable to connect the device to the mains supply.

**NOTICE**

**Electrical connection**

Failure to observe the values on the type plate

- Electronic and mechanical components may be damaged.

- **Connect the device only to mains supply matching the values on the type plate.**
4.6 Type Plate Description

Fig. 1: Type plate

1 Device designation
2 Year of production
3 Part number
4 Serial number
5 Manufacturer’s address
6 CE marking
7 Disposal label
8 Bar code
9 Power version
10 Mains frequency
11 Capacity
12 Amperage
13 Number of fuses
14 Fuse type and fuse strength

In the case of queries please provide the device designation (1) or part number (3), as well as the serial number (4) of the device.
4.7 Removing the Transportation Aid

**WARNING**

Serious personal injury
Falling loads

- Due to the heavy weight of the device, serious personal injuries can be caused if it falls down.
- **Lifting above head height is not permissible!**

The PP 35 pellet press is supplied in a sturdy 2-part cardboard box.

![Fig. 1: PP 35 pellet press packaging](image)

- Remove the two straps and take the outer cardboard box off the pallet.
- Loosen the screws on the inner cardboard box and remove them.

![Fig. 2: Remove the inner cardboard box](image)

- Loosen the 4 screws which connect the PP 35 pellet press to the transport aid.
Fig. 3: Loosen the transport aid screws

Lift the PP 35 pellet press onto a sturdy and steady table.

**NOTE**
The table must be designed to bear a weight of approx. 120 kg!
5 First Commissioning

⚠️ WARNING

Danger to life through electric shock
Damaged power cable
- An electric shock can cause burns, cardiac arrhythmia, respiratory arrest, as well as cardiac arrest.
- Never use a damaged power cable to connect the device to the mains!
- Check the power cable and the plug for any damage before use.

NOTICE

Setting up the device
 Disconnecting the device from the mains
- A separation of the device from the mains must be possible at any time.
- Set up the device in such a way, that the connection for the power cable is always easily accessible.

Scope of supply:
- 1x PP 35 pellet press
- 1x connection cable
- 1x fuse 4A
- 1x venting hose
- 1x delivery screw cap / press-screw cap (red)
- 1x pressing tool
- 1x pressing-out aid
- 1x 8-mm hexagon socket

⇒ Unscrew the rear metal-sheet panel.

Fig. 4: Remove the rear metal-sheet panel.

⇒ Unscrew the delivery screw cap and replace it with the press-screw cap (red).
Fig. 5: Replace the delivery screw cap with a press-screw cap.

- Screw the rear metal-sheet panel on again.
- Connect the connection cable to the press and insert it into a shockproof socket.
- Pull the PP 35 pellet press tool sliding tray out as far as it will go.
- Make sure the tool sliding tray is clean and that there is no feed material in it as this would destroy the tool sliding tray during the subsequent pressing procedure.
- Insert the pressing tool included in the scope of supply into the tool-sliding tray device and fill the pressing tool.

**NOTE**
Only work with the pressing tool included in the scope of supply.

- Put the cover on the pressing tool and push the tool sliding tray into the press again.
- Use the mains switch to turn on the press.
- Caution: the emergency-stop switch must be pulled.
6 Operating the Device

6.1 Use of the Device for the Intended Purpose

**CAUTION**

Risk of explosion or fire
Potentially explosive atmosphere

- On account of its design, the device is not suitable for use in potentially explosive atmospheres.
- **Do not operate the device in a potentially explosive atmosphere.**

**CAUTION**

Danger of personal injury
Hazardous sample material

- Depending on the dangerous nature of the sample material necessary measures must be taken to rule out any danger of personal injury.
- **Observe the material safety data sheets of the sample material.**

**NOTICE**

Range of application of the device
Long-term operation

- This laboratory device is designed for eight-hour single-shift operation with a duty cycle of 30%.
- **This device may not be used as a production machine nor is it intended for continuous operation.**

The Retsch PP 35 pellet press serves to quickly press-mould different minerals, slag, ores, cement, raw material etc.
Soil samples, ores, coal, coke, corundum, metal oxides, minerals, plant samples, slag, silicates, cement, and a lot of other substances can be press-moulded easily and quickly.
The PP 35 pellet press is used successfully in almost all areas of industry and research, particularly where stringent requirements are set for purity, speed, fineness and reproducibility.
The PP 35 pellet press may only be used as a laboratory device.

6.2 Switching On / Off

The mains switch is located on the back of the device.

6.3 Emergency Unlocking

The emergency stop switch is located on the front of the device.
6.4 Production of a Pellet

6.4.1 Free pressing / Pressing in an aluminium cup

⇒ Open the door.

Fig. 6: Open the door

⇒ Pull out the tool sliding tray.

Fig. 7: Pull out the tool sliding tray.

⇒ Take the cover off.
Fig. 8: Take the cover off

- Adjust the catch correctly so that it can hook in as the die moves down.

Fig. 9: Adjust the catch

- Fill the feed material into the aluminium cup or into the pressing tool if doing free pressing.
Fig. 10: Fill in the feed material

⇒ Close the cover.

Fig. 11: Close the cover

⇒ Push the tool sliding tray into the pellet press again and close the door.

Fig. 12: Closed press

⇒ Touch the display.
Fig. 13: PP35 Display

- The software opens.
- Press [Start] to start the pressing procedure.

Fig. 14: Start the pressing procedure

- The pressing procedure can be stopped by pressing [Stop].

Fig. 15: Stop the pressing procedure

- Close the [End of program] message after the end of the program.
Fig. 16: End of program

- Once the “End of program” message appears, the press is blocked for approx. 25 seconds in order to give the cylinder time to return to the initial position.
- Open the door, pull out the tool sliding tray and take the cover off.
- Put on the pressing-out aid.

Fig. 17: Put on the pressing-out aid

- Push the tool sliding tray into the press again.
- Close the door.
- Select [Sample output].

Fig. 18: Activate the sample output.

- As long as the cylinder is not in its initial position, a red bar appears in the display. As soon as the cylinder has been pulled back to the initial position, the red bar disappears.
Fig. 19: Cylinder is pulled into the initial position

- Touch [Sample output] again to start the procedure.
- Once the sample output starts, a green bar appears. This makes it possible to follow the progression of time during the pressing-out procedure.

Fig. 20: Progression of time during the pushing-out procedure

After the end of the pressing-out procedure:

- Open the press, pull out the tool sliding tray and take the cylinder cover off.
- Remove the sample pellet.

Fig. 21: Finished pellet
6.4.2 Pressing in the steel ring

**NOTE** When pressing in the steel ring, make sure that the pressure force is reduced to a maximum pressure of 15 t. Insert the pressing tool for steel rings and proceed as described in Chapter 6.4.1. If the pellet is not pressed out completely, the pressing-out time must be extended. See Chapter 6.5.3.

![Pressing tool for steel rings](image.png)

**Fig. 22:** Pressing tool for steel rings

⇒ Insert the steel ring with the flat rim facing upwards.

![Inserting steel ring](image.png)

**Fig. 23:** Insert the steel ring.

⇒ Fill the feed material into the ring.
Put the cover on the pressing tool. Proceed as described in Chapter 6.7.1. Close the [Programme end] message after the end of the program. Open the press, pull out the tool sliding tray and remove the steel ring with the sample.

6.4.3 Reusing the steel ring

- Insert the steel ring into the tool included in the scope of supply.
- Put the die onto the sample in order to then carefully knock the sample out with the aid of a hammer.
- Clean the steel ring and remove any residual clinging feed material so that it can be used again.

Remove sample out of the steel ring.
6.5 Programme Mode

- The PP 35 pellet press can store 10 programs. They are called up with stored program numbers 0-9. The 0 program is always loaded when the press is turned on.

6.5.1 Changing programs

- Touch the display at any point.
- Touch [Menu].

Fig. 26: Touch menu

- Touch [Change program].

Fig. 27: Change program

- It is only possible to view and switch between programs here. It is not possible to alter parameters here (see “Edit programs”). To view the different programs, select the program display on the top right.

Fig. 28: Show programs
Select the desired program and confirm with [ENT].

Touch [Menu] to return to the main screen.

6.5.2 Edit program

- Here is where all previously stored parameters, such as pressure force and holding time, can be altered. It is also possible to enter new parameters.
- Proceed as in the previous chapter.
- Instead of [Change program], touch [Edit program] now.

Fig. 29: Edit program

Enter password 1234 and confirm with [ENT].

Fig. 30: Enter password

The maximum pressure force is 35 tonnes. The parameters can be reduced!

**NOTE** When using the pressing tool for the steel ring, the maximum pressure force must be reduced to 15 t and reduced to 25 t for the 32-mm-dia. aluminium cup.

- Enter the desired holding times and pressure force for 1 / 2 / 3-step pressing.
- Confirm each selection with [ENT].
Fig. 31: Enter holding times and pressure force

⇒ Press [Save].

6.5.3 Altering settings

⇒ Touch the [Retsch logo] on the display

Fig. 32: Retsch logo on display

⇒ Enter password 9876 and the settings menu will appear.

Fig. 33: Settings menu

⇒ Select now from:
  - Languages: 1 = German, 2 = English, 3 = French
  - Push-out time: time in seconds to press a pellet out of the pressing tool (0 to 45 s) with the aid of [Sample output].
- Return stroke time: the time the cylinder needs to return to the initial position (20 to 50 s) after the pressing procedure.
- Max. pressing force: depending on the pressing tool, a pressure force limit can be entered here (max. = 35 t).
7 Error Messages and Information Notes

7.1 Error Messages

Error messages inform the user about detected device or programme errors. In the event of an error message, a fault has occurred, in which the operation of the device or the programme is automatically interrupted. Such faults must be resolved before next startup.

The PP 35 pellet press does not build up any pressure:

![Error message](image)

**Fig. 34: Error message**

1. If no pressure builds up, the cylinder must be vented.
2. Pull out the mains plug.
3. Unscrew the rear plate.
4. Loosen the screws on the hood and pull it forwards and off.
5. There is a venting connection at the point where the cylinder is connected and the venting tube can be connected here.
6. Run the other end of the hose into a container
7. Connect the mains cable and use the mains switch to turn on the press.
8. The emergency stop switch must be pulled.
9. Press [Sample output].
10. Use the mains switch to turn off the press as soon as oil runs into the container
11. Twist off the venting tube and screw on the dummy plug.
12. Pull out the mains plug.
13. Pull the hood over the press and screw it securely.
14. Screw on the rear panel.
15. Connect the mains cable again and put the press into operation again.

1. If the press still does not build up any pressure, please check the oil level.
   If this is alright, please call us.
7.2 Information Notes

Notices inform the user on specific device or programme processes. The operation of the
device or programme may be interrupted briefly, but there is no fault. The information notice
must be acknowledged by the user to continue the process. Information notices provide
additional information for the user as an aid, but do not represent any device or programme
errors.
8 Return for Service and Maintenance

![Return form](image)

**Fig. 2:** Return form

The acceptance of devices and accessories of the Retsch GmbH for repair, maintenance or calibration can only be effected, if the return form including the decontamination declaration service has been correctly and fully completed.

- When returning a device, attach the return form to the outside of the packaging.

In order to eliminate any health risk to the service technicians, Retsch GmbH reserves the right to refuse the acceptance and to return the respective delivery at the expense of the sender.
9 Cleaning, Wear and Maintenance

**CAUTION**

Personal injury
Improper repairs
- This manual does not contain any repair instructions.
- For safety reasons, repairs may only be carried out by Retsch GmbH or an authorised representative or by qualified service technicians.

9.1 Cleaning

**WARNING**

Danger to life through electric shock
Cleaning with water
- An electric shock can cause burns, cardiac arrhythmia, respiratory arrest, as well as cardiac arrest.
- The power cable must be unplugged before cleaning the device.
- Use a cloth dampened with water for cleaning.
- Do not clean the device under running water!

**NOTICE**

Damage to the housing and device
Use of organic solvents
- Organic solvents may damage plastic parts and the coating.
- The use of organic solvents is not permitted.

9.1.1 Cleaning the housing

⇒ Clean the housing on the device with a moistened cloth and, if necessary, a standard household cleaning agent. Make sure no water or cleaning agent gets inside the device.

9.1.2 Cleaning the pressure chamber

⇒ Pull the tool sliding tray out as far as it will go.

*Fig. 35:* Pull the tool sliding tray out
Cleaning, Wear and Maintenance

Pull up the latch at the back of the tool sliding tray.

Fig. 36: Pull up the latch

Holding the grips, take the tool sliding tray out of the press.

Fig. 37: Remove the tool sliding tray.

Using a hexagon socket screw key 6, loosen and remove the four screws in the pressing chamber.

Fig. 38: Loosen / remove the screws in the pressing chamber.

Take the individual parts out of the pressing chamber and clean it with a brush.
Fig. 39: Remove the individual parts.

Fig. 40: Clean the pressing chamber.
9.2 Wear

Depending on the frequency of pressing operations, tool sliding trays and pressing tools can become worn. The tool sliding trays and the pressing tools should be checked regularly for wear and replaced when necessary.

9.3 Maintenance

To assure the operational reliability of your PP 35 pellet press, conduct visual checks regularly. In particular, parts that are subject to wear and tear, such as pressing tools and tool sliding trays, should be checked for proper functioning and the absence of damage. Contact our service department when necessary.

10 Accessories

Information on available accessories as well as the respective manuals are accessible directly on the Retsch GmbH homepage (http://www.retsch.com) under the heading "Downloads" of the device.

Information on wear parts and small accessories can be found in the Retsch GmbH general catalogue also available on the homepage.

In case of any questions concerning spare parts please contact the Retsch GmbH representative in your country, or Retsch GmbH directly.
11 Disposal

In the case of a disposal, the respective statutory requirements must be observed. In the following, information on the disposal of electrical and electronic devices in the European Community are given.

Within the European Community the disposal of electrically operated devices is regulated by national provisions that are based on the EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE).

Accordingly, all devices supplied after August 13th 2005 in the business-to-business area, to which this product is classified, may no longer be disposed of with municipal or household waste. To document this, the devices are provided with the disposal label.

![Disposal label](image)

**Fig. 3:** Disposal label

Since the disposal regulations worldwide and also within the EU may differ from country to country, the supplier of the device should be consulted directly in case of need.

This labelling obligation is applied in Germany since March 23rd 2006. From this date on, the manufacturer must provide an adequate possibility of returning all devices delivered since August 13th 2005. For all devices delivered before August 13th 2005 the end user is responsible for the proper disposal.
12 Index

A
Accessories ............................................. 39
Action instructions ..................................... 7
Altering settings ........................................ 31
Ambient temperature .................................. 14
Amperage .................................................. 15
Application-technical information .................. 6

B
Bar code .................................................... 15

C
Calibration .................................................. 35
Capacity .................................................... 15
CE marking ................................................. 15
Changing programs ..................................... 29
Cleaning ..................................................... 36
Complaints .................................................. 13
Condensation .............................................. 13
Confirmation form for the managing operator .... 10
Copyright ................................................... 6

D
Degree of protection ..................................... 11
Delivery screw cap ....................................... 18
Device designation ....................................... 15
Dimensions ................................................ 11
Disclaimer .................................................. 6
Disconnection from the mains ......................... 18
Disposal ..................................................... 40
label ........................................................... 15, 40
regulations ................................................... 40
Drive power ............................................... 12

E
Edit program .............................................. 30
Electrical connection .................................... 14
frequency ................................................. 14
voltage ....................................................... 14
Electromagnetic compatibility ....................... 11
EMC .......................................................... 11
Emergency unlocking .................................... 20
Emissions .................................................... 11
Error messages ............................................ 33
Explanations of the safety instructions ............ 7
External fuse .............................................. 14

F
Feed grain size ........................................... 12
Fehlermeldung ............................................ 33
First commissioning ..................................... 18
Fuse strength ............................................. 15
Fuse type ................................................... 15

G
General catalogue ....................................... 39
General safety instructions ........................... 8
Humidity .................................................... 14
Information notes ........................................ 33, 34
Installation ............................................... 13
Installation height ....................................... 14
Installation site conditions ......................... 14
Languages .................................................. 31
Long-term operation .................................... 20
Mains frequency ......................................... 15
Mains supply .............................................. 14
Maintenance .............................................. 10, 35, 36, 39
Manual ..................................................... 6, 8, 10
Manufacturer’s address ................................ 15
Max. pressing force ..................................... 32
Notes on the Manual .................................... 6
Number of fuses .......................................... 15
Operating instructions .................................. 10
Operating the device ..................................... 20
Packaging .................................................. 13
Part number ............................................... 15
Pellet press PP 35 does not build up any pressure
............................................................. 33
Power version ............................................. 15
Press-screw cap ......................................... 18
Pressure force ............................................ 12
Pressure Force ............................................ 12
Production of a Pellet ................................... 21
Programme mode ........................................ 29
Protective equipment ................................... 11
Push-out time ............................................. 31
Range of application of the device .................. 20
Rated power .............................................. 11
Receptacle volume ....................................... 12
Relative humidity maximum .......................... 14
Repair ....................................................... 9, 35, 36
Repair instructions ....................................... 6, 9, 36
Required floor space ................................... 11
Return ....................................................... 13
for service and maintenance ......................... 35
Return device ............................................. 40
Return form .............................................. 35
Return stroke time ..................................... 32
Index

Revision status ...........................................6
S
Safety instruction ........................................7
  caution...............................................7
  danger.............................................7
  notice..............................................8
  warning............................................7
Safety manager .........................................8
Scope of supply ........................................18
Serial number ..........................................15
Service address .........................................9
Signs .......................................................7
Small accessories .......................................39
Spare parts ..............................................39
Switching on / off .....................................20
Symbols ....................................................7
T
Target group .............................................8
Technical data ..........................................11

Temperature fluctuations ...............................13
Temperature range ......................................14
Temporary storage .....................................13
Transport ...............................................13
Transportation aid
  removing.............................................16
Transportation damage .................................13
Type plate ..............................................14, 15
  description..........................................15
U
Use of the device for the intended purpose .......20
W
  Warranty claims ......................................9, 13
  Wear.....................................................36, 39
  Wear parts ..........................................39
  Weight...............................................11
Y
Year of production .....................................15
PELLET PRESS

PP 35 | 20.755.xxxx

EU DECLARATION OF CONFORMITY

Hereby we declare, represented by the signatory, that the above mentioned device complies with the following directives and harmonized standards:

Machinery Directive 2006/42/EC
Applied standards, in particular:
DIN EN ISO 12100 Safety of machinery

EMC Directive 2014/30/EU
Applied standards, in particular:
DIN EN 55011 Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement
DIN EN 61000-3-2 Electromagnetic compatibility (EMC)
DIN EN 61000-3-3 Electromagnetic compatibility (EMC)
DIN EN 61326-1 Electrical equipment for measurement, control and laboratory use - EMC requirements

Low Voltage Directive 2014/35/EU
Applied standards, in particular:
DIN EN 61010-1 Safety requirements for electrical equipment for measurement, control and laboratory use

RoHS directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Authorized person for the compilation of technical documents:
Dr. Loredana Di Labio (technical documentation)

Furthermore, we declare that the relevant technical documentation for the above mentioned device has been compiled according to Annex VII Part A of the Machinery Directive, and we undertake to submit this documentation on request to the market surveillance authorities.

In case of a modification of the device not previously agreed with Retsch GmbH, as well as the use of unauthorised spare parts or accessories, this declaration will lose its validity.

Retsch GmbH

Haan, 02/2017

Dr. Ing. Frank Janetta, Team Leader R&D Department