Operation Manual Air Jet Sieving Machine
Typ AS 200 jet
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1 Notes on the Operating Manual

This operating manual provides all the necessary information on the topics specified in the Table of Contents.

It instructs the target group(s) defined for the respective areas on the safe and purpose-conformant use. Familiarity with the relevant chapter is a precondition for the safe and purpose-conformant use of the machine.

This technical documentation is a reference work and learning guide. The individual chapters are complete by themselves.

This operating manual does not contain any repair instructions. In case of any faults or repairs being required, please contact your supplier or directly get in touch with Retsch GmbH [http://www.retsch.com/](http://www.retsch.com/)

Changes

Subject to technical changes.

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Infringements will result in damage compensation liability.
1.1 Explanations of the safety warnings

In this Operating Manual we give you the following safety warnings

**WARNING**

*Type of danger / personal injury*

*Source of danger*

– Possible consequences if the dangers are not observed.

• **Instructions on how the dangers are to be avoided.**

We also use the following signal word box in the text or in the instructions on action to be taken:

**WARNING**

**CAUTION**

*Type of danger / personal injury*

*Source of danger*

– Possible consequences if the dangers are not observed.

• **Instructions on how the dangers are to be avoided.**

We also use the following signal word box in the text or in the instructions on action to be taken:

**CAUTION**

In the event of possible **property damage** we inform you with the word “Instructions” and the corresponding content.

**NOTICE**

*Nature of the property damage*

*Source of property damage*

– Possible consequences if the instructions are not observed.

• **Instructions on how the dangers are to be avoided.**

We also use the following signal word in the text or in the instructions on action to be taken:

**NOTICE**
1.2 General safety instructions

**CAUTION**

Read the Operating Manual
Non-observance of these operating instructions
- The non-observance of these operating instructions can result in personal injuries.
- Read the operating manual before using the device.
- We use the adjacent symbol to draw attention to the necessity of knowing the contents of this operating manual.

**Target group:** All persons concerned with the machine in any form

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

You, as the owner/managing operator of the machine, must ensure that the people entrusted with working on the machine:
- 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 for them,
- have easy access always to the technical documentation for this machine,
- and that new personnel before starting work on the machine are familiarised with the safe handling of the machine and its use for its intended purpose, either by verbal instructions from a competent person and/or by means of this technical documentation.

Improper operation can result in personal injuries and material damage. You are responsible for your own safety and that of your employees. Make sure that no unauthorised person has access to the machine.

**CAUTION**

Changes to the machine
- Changes to the machine may lead to personal injury.
- Do not make any change to the machine and use spare parts and accessories that have been approved by Retsch exclusively.

**NOTICE**

Changes to the machine
- The conformity declared by Retsch with the European Directives will lose its validity.
- You lose all warranty claims.
- Do not make any change to the machine and use spare parts and accessories that have been approved by Retsch exclusively.
1.3 Repairs

This operating manual does not contain any repair instructions. For your own safety, repairs may only be carried out by Retsch GmbH or an authorized representative or by Retsch service engineers.

In that case please inform:

<table>
<thead>
<tr>
<th>The Retsch representative in your country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your supplier</td>
</tr>
<tr>
<td>Retsch GmbH directly</td>
</tr>
</tbody>
</table>

Your Service Address:
This operating manual contains essential instructions for operating and maintaining the device which must be strictly observed. It is essential that they be read by the operator and by the qualified staff responsible for the device before the device is commissioned. This operating 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 (s)he has received sufficient instructions about the operation and maintenance of the system. The user has received the operating 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.

As the owner/managing operator you should for your own protection have your employees confirm that they have received the instructions about the operation of the machine.

I have read and taken note of the contents of all chapters in this operating manual as well as all safety instructions and warnings.

<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>Signature</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service technician or operator</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 Use of the machine for the intended purpose

**CAUTION**

Risk of explosion or fire
- On account of its design, the device is not suitable for use in hazardous (potentially explosive) atmospheres.
- Do not operate the device in a hazardous atmosphere.

**CAUTION**

Risk of explosion or fire
Changing sample characteristics
- Note that the characteristics and accordingly the danger presented by a sample can change during sieving.
- Do not sieve any potentially explosive or combustible materials in this device.

**CAUTION**

Danger of personal injury
Dangerous nature of the sample
- Depending on the dangerous nature of your sample, take the necessary measures to rule out any danger to persons.
- Observe the safety guidelines and datasheets of your sample material.

**Target group:** Owner/managing operator, operator

**Machine Type Designation:** AS200jet

The AS200jet is specially designed for the dry sieving and the particle size determination of fine-grained, dry, pourable and dispersed bulk materials. The sieve holder is particularly suitable for the Retsch 203-mm-diameter test sieves.

This device offers user-friendly operation with rotary knob control and a large graphic display. All sieve parameters are set, indicated and monitored digitally.

Work is also made easier by the possibility of storing up to 9 and 10 (QUICK START) parameter combinations directly in the sieve shaker for frequently repeated sieving operations under the same conditions. The QUICK START key allows direct access to a combination of parameters.

The device can be controlled and adjusted with the EasySieve® evaluation software. With EasySieve® all sieve parameters are displayed on the screen before and during the sieving procedure.

The AS200jet can then reduce the average sieving times in samples with a high fine fraction.
NOTICE

Area of use of the machine

– This machine is a laboratory machine designed for 8-hour single-shift operation.

• This machine may not be used as a production machine nor is it intended for continuous operation.

NOTE

Defects in components due to liquids
Penetration of liquids inside the housing
– Components are damaged and the correct functioning of the device is no longer assured.

• Do not use this device for any wet sieving.

3.2 Emissions

CAUTION

Hearing damage or hearing loss
Suction noise at the suction opening
– The volume and/or force of drawn-in air can damage hearing or cause hearing loss.

• Keep your ears away from the air inlet in the channel. Use hearing protection.

Noise characteristics:
Noise measuring in accordance with DIN 45635-031-01-KL3.

The AS200jet is constructed in a manner that prevents any significant development of noise.

The noise characteristics of the connected industrial vacuum cleaner depend on the set suction force and/or suction load.

To reduce the suction noise, the supplied sound absorber (IS) can be connected to the air inlet channel (I).
3.3 Maximum Load

Maximum quantity of material to be sieved = depending on the sieve size

3.4 Degree of protection

– IP40

3.5 Dimensions and weight

Height: 288 mm (without lid)
Width: 460 mm
Depth: 305 mm
Weight: approx. 14 kg

3.6 Required floor space

460 mm x 320 mm; no safety spacing required

3.7 Rated power

AS200jet: Maximum of 50 watts
AS200jet + industrial vacuum cleaner: 1450 Watt
4 Transport, scope of delivery, installation

4.1 Packaging

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

4.2 Transport

NOTICE

Transport
– Mechanical or electronic components may be damaged.
• The machine may not be knocked, shaken or thrown during transport.

4.3 Temperature fluctuations and condensed water

NOTICE

Temperature fluctuations
The machine may be subject to strong temperature fluctuations during transport (e.g. aircraft transport)
– The resultant condensed water may damage electronic components.
• Protect the machine from condensed water.

4.4 Conditions for the place of installation

NOTICE

Ambient temperature
– Electronic and mechanical components may be damaged and the performance data alter to an unknown extent.
• Do not exceed or fall below the permitted temperature range of the machine (5°C to 40°C / ambient temperature).

4.5 Installation of the machine

CAUTION

Device falling down
Incorrect assembly or unsuitable workplace
– The appliance is very heavy and can therefore cause serious personal injuries if it falls down.
• Operate the device only on a sufficiently large, firm and steady workplace.
• Make sure that all equipment feet are steady.
4.6 Electrical connection

**CAUTION**

**Parts connected to voltage**
The current supply is switched on suddenly.

- There is a risk of an electric shock at the power connection for the external suction when the device is switched on.
- **Do not touch the power connection for the external vacuum cleaner or put any parts into the openings.**

The voltage required and the frequency of the machine are provided on the type plate.

- Ensure that the values agree with the available power supply system.
- Connect the machine to the power supply system using the connecting cable supplied.

**CAUTION**

An external fusing at the connection of the mains cable to the power supply must be provided in accordance with the conditions of the place of installation.

The external fuse must be at least T15A (230V) T15A (100/120V).
5 Operating the machine

5.1 Views of the Instrument

Fig. 2: Front view

Fig. 3: Rear View
5.2 Operating elements and displays

Fig. 4: View of the sieve compartment (without sieve)

Fig. 5: View of the display unit
### 5.3 Overview table of the parts of the device

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Lid for air jet sieving</td>
<td>Lid for the test sieve</td>
</tr>
<tr>
<td>B</td>
<td>Test sieve</td>
<td>Sieve for the dry sieving and/or particle size determination</td>
</tr>
<tr>
<td>C</td>
<td>Display</td>
<td>Displays the control functions and parameters</td>
</tr>
<tr>
<td>D</td>
<td>Start button</td>
<td>Starts sieving</td>
</tr>
<tr>
<td>E</td>
<td>Stop button</td>
<td>Stops sieving</td>
</tr>
<tr>
<td>F</td>
<td>Operating knob</td>
<td>Dial for changing the device settings</td>
</tr>
<tr>
<td>G</td>
<td>Quick start button</td>
<td>Starts quick sieving</td>
</tr>
<tr>
<td>H</td>
<td>Air outlet channel</td>
<td>Connection for external exhaust</td>
</tr>
<tr>
<td>I</td>
<td>Air inlet channel</td>
<td>Opening for air inlet</td>
</tr>
<tr>
<td>J</td>
<td>Connection for automatic air flow regulation</td>
<td>Connector socket for external air flow regulation</td>
</tr>
<tr>
<td>K</td>
<td>Serial PC - Port (RS232)</td>
<td>PC connection for data communication with EasySieve®</td>
</tr>
<tr>
<td>L</td>
<td>Inactive interface (R-S 485)</td>
<td>Inactive interface for optional data communication with an external device</td>
</tr>
<tr>
<td>M</td>
<td>On/Off switch</td>
<td>Disconnects the device from the mains / including thermal and switchable power fuse</td>
</tr>
<tr>
<td>O</td>
<td>IEC C14 appliance inlet</td>
<td>Mains connection</td>
</tr>
<tr>
<td>P</td>
<td>IEC C13 connector</td>
<td>Power connection for the external vacuum cleaner</td>
</tr>
<tr>
<td>R</td>
<td>Cover for differential pressure sensor</td>
<td>Protects the differential pressure sensor</td>
</tr>
<tr>
<td>S</td>
<td>Air nozzle</td>
<td>Conducts the air jet upwards onto the sieve</td>
</tr>
<tr>
<td>T</td>
<td>Nozzle compartment</td>
<td>Feeds the material to be sieved to the air outlet channel</td>
</tr>
</tbody>
</table>
The AS 200 jet has an air nozzle, which is set rotating. The sieve with lid is put on top of that. A vacuum unit generates a jet of air, which disperses the particles through the air nozzle on the sieve. The material, which is smaller than the sieve’s mesh size is transported by the backflow of the air into the cyclone or directly into the vacuum cleaner. The jet of air de-agglomerates the particles and cleans the sieve mesh constantly.

5.4 Switching On and Off

- Press the on/off switch (M) at the back to turn on the device.

When the switch is in the "off" position, the device must be disconnected completely from the mains power supply.

5.5 Inserting the test sieve

The AS200jet is intended for Retsch 203-mm-diameter test sieves. The range of mesh fineness extends from 10 µm to approx. 4 mm.

Fig. 6: Inserting the test sieve
Place the sieve on the nozzle compartment (T).
Close the sieve with the lid for the air jet sieving (A).

NOTE
The AS200jet can only be started if the lid and sieve is on.

5.6 Soft-faced mallet – Application and Use

Use the soft-faced mallet to knock off caking during the sieving.
Tap lightly and mostly in the centre of the knob with the mallet.
5.7 Connecting the external Industrial Vacuum cleaner

**WARNING**

**Electric shock**
Defective power cable
- There is a risk of an electric shock when the device is switched on if the power cable for the external vacuum cleaner is damaged.
- **Before using it, check the power cable between the sieve shaker and the vacuum cleaner for any damage.**
- **Never use a damaged power cable!**

**CAUTION**

**Objects thrown-out or falling down**
Connection of compressed air instead of vacuum cleaner
- If compressed air is connected to one of the two air openings, the sieve lid and the sieve will be hurled out.
- **This device may not be operated with compressed air.**

The AS200jet can be operated only with a suction device such as e.g. a vacuum cleaner. We recommend that you use the Retsch industrial vacuum cleaner, which is available as an accessory.

**CAUTION**

Before you use the Retsch industrial vacuum cleaner, read the operating manual for it.

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**Fig. 7: Using the soft-faced mallet**

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Fig. 8: Connecting the Retsch industrial vacuum cleaner

- As required, connect the manual suction force adjuster to the air outlet channel (H).
- Connect your vacuum cleaner’s suction tube to the air outlet opening channel (H) or to the manual suction force adjuster.
- Insert the type F IEC C14 cable-mounted connector on the vacuum cleaner into the IEC C13 panel-mounted outlet (P).

The power for the Retsch industrial vacuum cleaner is supplied from the AS 200 jet.

**NOTE**

**Objects are sucked in**

- Negative pressure in the sieve area
  - Small objects can be sucked into the inside of the machine.
- Keep objects and parts of the body away from the suction opening.

**CAUTION**

**Overhearing acoustic signals**

- Loud suction noise at the air intake
  - Acoustic alarms and voice communication might not be heard.
- Consider the force of the suction noise in relation to other acoustic signals in the work environment and the arrangement of devices. You may wish to use additional visual signals.

Fig. 9: Air jets through the manual suction force adjuster
Fig. 10: Manual adjustment of the air jet (cross section)
The air jet can be changed by turning the manual air jet setting (U).

[1] Air entry opening (V) closed → maximum air jet
[2] Air entry opening (V) open → minimum air jet

The difference in air pressure (differential pressure) between the air inlet and air outlet at a given moment is displayed on the screen.
### 5.8 Menu structure

<table>
<thead>
<tr>
<th>1st level</th>
<th>2nd level</th>
<th>3rd level</th>
<th>4th level</th>
<th>5th level</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANUAL OPERATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sieving program 1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>EASY SIEVE CONTROL</td>
<td></td>
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<tr>
<td>SIEVING TIME</td>
<td></td>
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<tr>
<td>SPEED</td>
<td></td>
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<tr>
<td>NEGATIVE PRESSURE</td>
<td></td>
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</tr>
<tr>
<td>OPEN MESH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROGRAM MODE</td>
<td>ACCEPT PARAMETERS</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>EDIT PROGRAM</td>
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<tr>
<td></td>
<td>DELETE PROGRAM</td>
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<tr>
<td>&lt; BACK</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>MENU</td>
<td>SETTINGS &gt;</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>NEGATIVE PRESSURE</td>
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<td></td>
<td>ACOUSTIC ALARM</td>
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<tr>
<td></td>
<td>SERVICE &gt;</td>
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<td></td>
<td>SERVICE HELP</td>
<td></td>
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<td></td>
<td>SERVICE INTERVAL &gt;</td>
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<tr>
<td></td>
<td>INDIVIDUAL SERVICE INTERVAL</td>
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<tr>
<td></td>
<td>REMAINING TIME</td>
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<tr>
<td></td>
<td>SET TIME</td>
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<td></td>
<td>ACCEPT TIME</td>
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<td>&lt; BACK</td>
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<td></td>
<td>OPERATING HOURS</td>
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<td></td>
<td>OPERATING SOFTWARE</td>
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<td></td>
<td>SERVICE LEVEL &gt;</td>
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<tr>
<td></td>
<td>ADJUSTMENT OF MOTOR SPEED</td>
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<td></td>
<td>SENSOR CALIBRATION</td>
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<td>&lt; BACK</td>
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<td></td>
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<tr>
<td></td>
<td>DISPLAY</td>
<td>CONTRAST</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>BRIGHTNESS</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>LANGUAGE</td>
<td></td>
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<td></td>
<td>&lt; BACK</td>
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<td></td>
<td></td>
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<tr>
<td>DATE</td>
<td>TIME</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>&lt; BACK</td>
<td></td>
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</tbody>
</table>
This device offers new, very user-friendly prompting. All relevant data can be entered into or called up on a graphic display with one-button operation. The menu instructions are multi-lingual.

5.8.1 Setting Possibilities on the Display Menu

Please refer also to the chapter on menu structure for information on using the setting possibilities on the display, as described in the following. The selection bar in the display is operated as follows:

**Turning function I)**
- Turn the setting knob to reach the individual menu items. The selected menu items are marked by the dark selection bar.

**Turning function II)**
- Turn the setting knob to alter the numbers and decisions in the menu items.

**Pressing I)**
- Press the setting knob to open the selected menu items.

**Pressing II)**
- Press the setting knob to confirm the settings.

**Pressing III)**
- Press and hold the setting knob to return to the start screen (Level 1).

5.9 Symbols in the Display Unit

Abb. 11: View of the menu in the display unit

|                | Open mesh switched on (see open mesh chapter) |
Operating the machine

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Program mode - accept parameters</td>
</tr>
<tr>
<td></td>
<td>Program mode – edit program</td>
</tr>
<tr>
<td></td>
<td>Program mode - delete program</td>
</tr>
<tr>
<td></td>
<td>Acoustic alarm on</td>
</tr>
<tr>
<td></td>
<td>Acoustic alarm off</td>
</tr>
<tr>
<td></td>
<td>Service necessary</td>
</tr>
</tbody>
</table>

5.9.1 Setting the language

Menu → Display → Languages

You can select your language here. When you made your selection, press the setting knob and the entire menu structure will be shown in your language.

5.9.2 Direct access to the language menu

If you have set the wrong language inadvertently, you can return to the language menu by taking the following steps.

- Press the main switch to turn the device off.
- Turn on the device by pressing the START - STOP - QUICK START keys simultaneously.
- Once you have selected the right language, turn the device off and on again immediately.
- Confirm your selection by pressing the setting knob.

The device is now set permanently in that language and you are now in the main menu.

5.9.3 Manual Operation

If this function is set, you can call up and change all parameters and functions at any time. This is also possible during sieving.

5.9.4 Sieving Program 01 – 09 (10)

To enter the “Sieving program” function, press the “manual operation” setting knob when making the settings. Sieving program 1 flashes in the display. The data already stored is shown in Sieving program 1 also.

To select the other sieving programs 2 – 9 and 10 the QuickStart program, turn the setting knob to the right. The respective stored parameters are displayed in each case.
You can start the machine directly with the selected sieving program.
To return to “manual operation”, turn the setting knob completely to the left and confirm with the setting knob.

5.9.5 Sieving Time

00:01 to 99:59 (minutes:seconds)

5.9.6 Speed

5 to 55 revolutions per minute (10 rpm open mesh)

5.9.7 Negative Pressure

If the automatic suction force adjustment is connected, you can set the negative pressure in this menu.

5.9.8 Open Mesh

YES/NO

The air nozzle is turned two steps forwards and one back. When the Open Mesh is switched on, the speed is permanently set to 10 revolutions per minute.

5.9.9 Program Mode

5.9.9.1 Accept Parameters

Here all previously set parameters, such as sieving time, speed, negative pressure (only if the automatic suction force adjustment is connected) and open mesh are stored to memory.

Set the desired parameters.

Change to “program mode” in the menu, press the setting knob and confirm “accept parameters” again. The display shows sieving programs again with the memory position number on the right.

Turn the setting knob to the right until you find a sieving program you want to overwrite.

To reserve the selection memory position, press the setting knob.

You can then choose between “Save parameters” or "Cancel"

You are then returned to the program mode level.

5.9.9.2 Edit Program

All previously stored parameters, such as sieving time, speed, negative pressure and open mesh can be changed here.

It is also possible to enter new parameters.

Select "Program mode", "Edit program" and confirm with the setting button, the display shows the sieving program again with the memory position number.

Select the "Sieving program" to be edited by pressing the setting button, Only the memory position numbers are inverted. Change the sieving program by turning the setting button.

Confirm the sieving program to be edited by pressing the button. The parameters can now be edited.
You can then choose between "Save parameters" or "Cancel"
You are then returned to the program mode level.

5.9.9.3 Delete Program

All previously stored parameters can be deleted here. Select "Program mode". Press the setting button, and confirm "Delete program" again. Select the sieving program to be deleted by turning the setting button and confirm by pressing. You can now choose between "Delete program" or "Cancel" You are then returned to the program mode level.

5.9.10 Acoustic Alarm

Menu ➔ Settings ➔ Acoustic Alarm

The fault alarms generated by incorrect operation can be supported by an acoustic alarm. If this function is switched off, the corresponding pictogram appears.

5.9.11 Service

Menu ➔ Settings ➔ Service

The service menu is divided into five sub-menus:

5.9.11.1 Service Instructions

Service instructions are stored here in the form of a checklist. This is intended to make effective and regular servicing easier and increase the device’s operational reliability.

5.9.11.2 Service Interval

An individual service interval – after which the operator is informed that service work is required - can be set here, taking account of the devices in the vicinity. The time to be set is based on the sum total of the sieving times (times between START and STOP). A time between 1 and 250 h (hours) can be set. The factory default setting is 4 hours. If the ambient conditions are particularly tough, we recommend reducing the default setting.

5.9.11.3 Operating Hours

The sieving hours, i.e. the total time between START and STOP, are counted. The time cannot be manipulated.

5.9.11.4 Operating Software

The operating software version can be called up and updated if required. If necessary, get in touch with your Retsch distributor.

If you reach this menu by mistake and a return to the previous menu is not possible, press the main switch to turn off the device and then re-start it.

5.9.11.5 Service Level

NOTE

Access to this menu item is exclusively reserved for service employees or authorised service staff.

5.9.12 Contrast/Brightness

Menu ➔ Display ➔ Contrast
The contrast and brightness can be adapted to the respective user or ambient conditions (sunlight, glare etc.).
If the contrast or brightness has been inadvertently set incorrectly (the display is no longer legible), press the main switch to turn off the device while simultaneously holding down the START, STOP and QUICK START keys and then switch it on again. You will now see the language menu and the CONTRAST and BRIGHTNESS levels have the default settings again.

5.9.13 Date/Time

- Menu ➔ date
- ➔ time

The actual data and time can be entered here.
The time appears then on the stand-by monitor.
The device can be disconnected from power for up to 30 days without the settings being lost.

5.9.14 Stand-By Monitor

The stand-by monitor switches on automatically after the device has been inactive for 15 minutes (time after a STOP command).
The stand-by monitor disappears without the command being executed once a key is pressed or the setting button touched.
If you were in a sub-menu when the stand-by monitor was activated, you will be returned automatically to this selection window.
The stand-by monitor cannot be adjusted and therefore cannot be switched off.
5.10 Starting, Interrupting, Stopping

- Switch the device on by pressing the on/off switch at the back.
- Use the operating knob (F) to set the sieving parameters you want.
- Put the test sieve with the sample onto the nozzle compartment.
- Place the lid on the sieve.

**NOTE**
The sieving will not start if the lid is not on.

- Start sieving by pressing the START button (D).
- You can also start the air jet sieving directly by pressing the QUICK START key (G). (see chapter on Quick Start key functions)

The QUICK START (G) key can be used to start a pre-programmed sieving process directly without accessing the menu.

![Connection diagram](image-url)

**Fig. 12: Connection of the regulated suction force control**

The regulated suction force control available as a Retsch accessory allows the air jet force to be regulated automatically. The AS 200 Jet measures the current air jet force and controls the external vacuum cleaner force control accordingly.

- Connect the air outlet opening of the external vacuum cleaner force control to the air inlet channel (H).
- Connect the control cable from the suction force control to the connection for the automatic air jet regulation (J).

6 EasySieve®

6.1 Control, evaluation, documentation

EasySieve®, the software package from RETSCH for grain size analyses, is superior to manual evaluation in many respects. This is because the software is able to perform the required measuring and weighing processes automatically – from determining the weights of the sieves to evaluating the data. And in a much more simple and comfortable manner – thus making life "easier".
The software is structured in a self-explanatory way and follows the logical chain of events involved in analysing grain sizes. This makes it possible to use it with confidence in a fairly short time. The multiplicity of evaluation options additionally provides the utmost flexibility in adapting to demanding, individual applications.

Abb. 13: Parameter input – Trend analysis of product processes - Comparison with specification limits

6.2 Serial PC connection

The AS200jet can be connected serially to a personal computer for data transfer in each direction. For this purpose use a commercially available 9-pin RS232 cable. This allows communication with the EasySieve® evaluation software (available as an accessory).

• Connect the cable to the RS232 interface (K).

Fig. 14: Rear View

7 Cleaning and service

⚠️ WARNING

Risk of a fatal electric shock
- An electric shock can cause injuries in the form of burns and cardiac arrhythmia, respiratory arrest or cardiac arrest.

• Do not clean the blender under running water. Use only a cloth dampened with water.

• Disconnect the power supply plug before cleaning the blender.
7.1.1 Cleaning

We recommend Retsch ultrasonic baths for a thorough but gentle time-saving cleaning of your analytical sieves.

Please ask for our special leaflet on the “Care and Cleaning of Analytical Sieves”, which is available free of charge.

Fig. 15: Cleaning the air outlet duct

Use a brush regularly to clean any deposits off the air outlet duct.

7.1.2 Maintenance

If your AS200Jet is used for quality control, the differential pressure sensor should be calibrated regularly in conformance to DIN EN ISO 9001:2000 et seq. Please contact your dealer or Retsch GmbH directly.

Otherwise the AS200Jet is essentially maintenance-free.
8  Fault messages

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<th>Description</th>
<th>Check if</th>
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<td>F27</td>
<td>VACUUM TOO LOW</td>
<td>Check if</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the vacuum cleaner is generating sufficient vacuum, connected,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the collecting container in the vacuum cleaner is full,</td>
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<tr>
<td></td>
<td></td>
<td>• the sieve lid is mounted</td>
</tr>
<tr>
<td>F28</td>
<td>DROP IN VACUUM</td>
<td>Check if</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the sieve lid is put on</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the suction hose is connected</td>
</tr>
<tr>
<td>F38</td>
<td>ELECTRIC SUCTION FORCE ADJUSTER NOT CONNECTED OR</td>
<td>Disconnected from the electric suction force adjuster</td>
</tr>
<tr>
<td></td>
<td>DEFECTIVE</td>
<td></td>
</tr>
<tr>
<td>F39</td>
<td>MOTOR DEFECTIVE / BLOCKED</td>
<td>Service required</td>
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9  Accessories

- Industrial vacuum cleaner
- Cyclone
- Regulated suction force control
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