Operating Instructions
EK / EKK 43

„Most accurate grinding“
Dear Customer,

with the “EK 43” or “EKK 43” you have purchased a grinder in the well-known MAHLKÖNIG quality.

Our over 80 years of experience in the production and development of grinders have helped us to develop a new product in the MAHLKÖNIG company.

As usual, this product guarantees top-quality by grinding of all types of coffee, spices and grains.

Before putting the device into service, please read these operating instructions including the safety instructions carefully and observe them at all times. Also instruct your personnel accordingly.

Enclosed you will find many useful tips that will make it easier for you to use the grinder. Keep these operating instructions in a safe, easily accessible location. In case of any unclear points or additionally required information, please contact your local dealer or us directly as the manufacturer.

MAHLKÖNIG GmbH & Co. KG
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1. Safety

Please read and observe the following operating instructions carefully. Non-observance can result in damage to the device as well as in health-threatening risks for the user.

1.1 Symbols

The following two symbols are used in this manual of operating instructions:

Safety instruction:
In case of non-observance, extreme risk of accidents exists.

General instruction:
In case of non-observance, the device can become damaged or optimum operation not be guaranteed.

1.2 Safety Instructions

Never use the grinding mechanism to grind other products or objects. Ground material is never allowed to be filled into the hopper.

Do not carry out any modifications or changes on the grinder. In case of non-observance, the manufacturer shall be liable for resulting damage in no case whatsoever.

Never operate the grinder in moist or, even worse, in wet surroundings.

Never put your fingers or objects into the rotating grinding mechanism underneath the hopper.

Always pull the power supply plug out of the outlet before carrying out any maintenance or cleaning work on the device.

Never put the device into service with a defective power supply cable. Check the device regularly for any signs of damage on the power supply cable, plug, finger protector, etc.

Any repairs that may be required are only allowed to be carried out by experts. Please contact an authorised customer service centre, your local dealer or us directly as the manufacturer.

Do not exceed the permissible maximum operating period of 40 minutes. Afterwards, allow the motor to cool down for approx. 30–40 minutes.

When unpacking the device, please check to determine whether the power supply voltage (volts) corresponds to the device voltage on the rating plate.

Children do not recognise the risks that may arise when handling electrical devices; therefore never leave children alone with electrical devices without proper supervision.
Never immerse the device in water and do not operate it with wet hands.

1.3 Purpose of Use
You can only use the grinder you have purchased to grind the goods for which the grinder has been designed. Please make sure that only clean and whole coffee beans are ground. Never use the grinder to grind any other products or objects.

Example:
You can use the EGM 43 combination grinder (with different grinders) to grind grain on one side and poppy seeds on the other.

1.4 User requirements
No special requirements are specified for the users of this device. It is, however, assumed that this manual of operating instructions has been carefully read and understood and that all instructions provided in this manual will be observed. In addition, working with the device on a safety-conscious basis is also expected.

2. Technical Data

<table>
<thead>
<tr>
<th>Description</th>
<th>EK43, EL43, EM43, EG43, EP43, EKK43,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage/Frequency</td>
<td>220-240V / 50Hz</td>
</tr>
<tr>
<td></td>
<td>220V / 60Hz</td>
</tr>
<tr>
<td></td>
<td>100-120V / 60Hz</td>
</tr>
<tr>
<td></td>
<td>100V / 50Hz</td>
</tr>
<tr>
<td>RPM</td>
<td>1480 rpm.</td>
</tr>
<tr>
<td>@ 50 Hz</td>
<td>1740 rpm.</td>
</tr>
<tr>
<td>@ 60 Hz</td>
<td></td>
</tr>
<tr>
<td>Sound emission</td>
<td></td>
</tr>
<tr>
<td>Idle operation</td>
<td>60 dB</td>
</tr>
<tr>
<td>Operation</td>
<td>87 dB</td>
</tr>
<tr>
<td>Pre-fuse</td>
<td>16 A-slow</td>
</tr>
<tr>
<td>Overload circuit breaker</td>
<td>7A T</td>
</tr>
<tr>
<td>230V</td>
<td></td>
</tr>
<tr>
<td>115V</td>
<td>12A T</td>
</tr>
<tr>
<td>Permissible max. operating time of the grinder</td>
<td>40 minutes</td>
</tr>
<tr>
<td>Dimensions in mm</td>
<td></td>
</tr>
<tr>
<td>EK 43</td>
<td>B 230, T 410, H 770</td>
</tr>
<tr>
<td>EKK 43</td>
<td>B 230, T 590, H 770</td>
</tr>
<tr>
<td>Net-weight</td>
<td>24 kg</td>
</tr>
<tr>
<td>EK 43</td>
<td>28 kg</td>
</tr>
<tr>
<td>EKK 43</td>
<td></td>
</tr>
<tr>
<td>Hopper capacity</td>
<td>1500 g</td>
</tr>
<tr>
<td>EK 43</td>
<td>2 x 1500 g</td>
</tr>
</tbody>
</table>

(Please ask the manufacturer or dealer for technical data on other voltages and frequencies.)
3. Description

The main components and operating elements are shown in the figure.

Pos. 1  Hopper
Pos. 2  Adapter with hopper slider
Pos. 3  Grind adjustment
Pos. 4  Bag holder
Pos. 5  Bag holder handle
Pos. 6  Reset button
Pos. 7  ON switch “I”, green
Pos. 8  OFF switch “0”, red
Pos. 9  Base
Pos. 10 Residue tray
4. Safety Devices

Thermal overload circuit breaker
The motor of the grinder is protected by an overload circuit breaker, which interrupts the electric circuit of the motor when the device is subjected to electric overloading. To be able to re-start the grinder, the reset button on the side of the casing must be pressed.

The user has no influence whatsoever on this operation. In case of repeated tripping of the circuit breaker, an expert must be consulted since this could cause damage to the motor winding.

Motor protector (winding shield)
The grinder is protected against thermal overloading by a motor protector (thermostat, inserted in the winding). Whenever the winding of the motor heats up to an impermissible level, the motor protector interrupts the electric circuit of the motor. Following a cool-off phase (approx. 1 hr.), the motor protector is switched on again automatically and the grinder can be re-started.

5. Setting-up and Basic Adjustment

A grinding test run is carried out on each grinder in the manufacturer’s factory. This is why you may find ground material residue in the grinding mechanism!

5.1 Setting-up Area
Place the grinder on a level surface free from vibration.

Never operate the grinder in moist, or even worse, in wet surroundings.

5.2 Installation
You have received your grinder in operating condition. Now you only need to connect it to a power supply system. Proceed as follows:

Protect your device with a separate pre-fuse (not included in the scope of supplies) according to the information provided in „Technical data“ under 2.

Make sure that the pre-fuse is not overloaded by other consuming devices (e.g. fan-forced heaters, deep freezers).
Determine whether the mains voltage and frequency correspond to the information on the rating plate.

Insert the plug into the available grounded outlet.

6. Operation

6.1 How to use the grinder

1. By moving the rotary knob (pos.3), set the required grind degree (to the left for coarse grind, to the right for finer grind).

2. Only fill whole coffee beans (unground material) into the hopper (pos.1). Close the hopper.

3. Press the handle of the bag holder down (pos.5) and push the completely opened bag, which has been smoothed along the folds, over the spout. Let go of the handle and the bag is held firmly in position.

4. Now you can switch on the grinder (pos.7).

5. Knock the base of the bag a number of times whilst grinding. This allows the maximum capacity of the bag to be used.

6. Once all material has been ground, hold the bottom of the bag gently in one hand. Use the other hand to press the handle of the bag holder and allow it to knock against the spout 2 – 3 times. This removes any ground particles which may still be attached to the inside of the spout.

7. Now switch off the grinder (pos. 8)

8. Remove the filled bag from the spout. The grinding process is terminated. Close the main hopper slider.
6.2 What can be ground?

<table>
<thead>
<tr>
<th>Grinder</th>
<th>products which can be ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>EK 43</td>
<td>Coffee</td>
</tr>
<tr>
<td>EL 43</td>
<td>Linseed</td>
</tr>
<tr>
<td>EM 43</td>
<td>Poppy seed</td>
</tr>
<tr>
<td>EG 43</td>
<td>Grain</td>
</tr>
<tr>
<td>EP 43</td>
<td>Spices</td>
</tr>
<tr>
<td>EKK 43</td>
<td>Coffee / Coffee</td>
</tr>
<tr>
<td>EGL 43</td>
<td>Grain / Linseed</td>
</tr>
<tr>
<td>EGM 43</td>
<td>Grain / Poppy seed</td>
</tr>
<tr>
<td>EKM 43</td>
<td>Coffee / Poppy seed</td>
</tr>
<tr>
<td>EML 43</td>
<td>Poppy seed / Linseed</td>
</tr>
<tr>
<td>EPP 43</td>
<td>Spices / Spices</td>
</tr>
</tbody>
</table>

7. Operating faults

<table>
<thead>
<tr>
<th>Defect</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The grinder hums but does not grind.</td>
<td>The spout is clogged.</td>
<td>Set grinding fineness to „coarse“ and trigger the grinding process. The grinder will then grind itself free. Afterwards, return the setting to the desired grinding fineness.</td>
</tr>
<tr>
<td>Grinding is set too fine.</td>
<td></td>
<td>Turn the grinding fineness setting to the right, to „coarse“, and trigger the grinding process. The grinder will then grind itself free. Afterwards, return the setting to the desired grinding fineness.</td>
</tr>
<tr>
<td>A foreign object is in the grinding mechanism.</td>
<td></td>
<td>Clean the grinding mechanism as described and remove the foreign object. Observe the safety instructions!</td>
</tr>
<tr>
<td>Defect</td>
<td>Cause</td>
<td>Remedy</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>The grinder does not start.</td>
<td>The power supply plug is not inserted.</td>
<td>Insert the plug into the outlet.</td>
</tr>
<tr>
<td></td>
<td>The overload circuit breaker has been tripped.</td>
<td>Check to determine whether the reset button of the circuit breaker has jumped out. Press the reset button in again if appropriate. In case of repeated tripping of the circuit breaker, contact your authorised customer service centre or dealer.</td>
</tr>
<tr>
<td></td>
<td>The motor protector was tripped.</td>
<td>Give the grinder a cooling-off break of approx. 1 hr.</td>
</tr>
<tr>
<td></td>
<td>The pre-fuse was tripped.</td>
<td>Check the pre-fuse. Restore the pre-fuse to its initial state or replace it. Determine whether other consuming devices are also connected to this fuse.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Defect</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grinder rotates but without grinding.</td>
<td>Carrier breakage.</td>
<td>Remove the grinder casing cover, take out the broken pieces of the driver, insert a new driver and then install the grinder casing cover again.</td>
</tr>
<tr>
<td>Scratching noise after switch-off in idle run.</td>
<td>Incorrect sense of rotation.</td>
<td>Have the polarity checked by specialised personnel.</td>
</tr>
<tr>
<td>Loud buzzing noise after switch-on in idle operation.</td>
<td>The centrifugal switch closes at a slower rotation and reconnects the starting capacitor.</td>
<td>No remedy needed. Standard operation.</td>
</tr>
<tr>
<td>Vibrations inside between rotating parts.</td>
<td>Switch off and on the grinder. Exchange the shear plate and grease the rotating parts to minimise vibrations.</td>
<td></td>
</tr>
</tbody>
</table>

In case of other malfunctions or continued faults, please contact your dealer or your authorised customer service centre.
8. Grind Adjustment Calibration

The grinder has been precisely adjusted by the manufacturer. However, if the ground material is no longer fine enough after a longer period, the grinder must then be re-adjusted according to the following procedure:

1. Turn the rotary knob to position 1 "fine". Loosen the two threaded pins by approx. 1 rotation using the 3 mm hexagon spanner enclosed in delivery. The two threaded pins are positioned in the drilled holes of the rotary knob.

2. Now switch on the grinder.

3. Using a screwdriver or coin, carefully turn the large adjustment screw with the slot to the right until you hear a rattling noise (grinding disc are touching). Turn the adjustment screw back by approx. 10 degrees and the rattling sound should stop.

4. If you grind some beans now, you should get fine grains (in the case of coffee). If the coffee beans have been ground too fine, the discs can stick together. The grinder would be blocked.

5. If the adjustment you have made does not come up to your expectations you can adjust the grind degree as described above.

9. Cleaning the Grinder

Always pull the power supply plug out of the outlet before carrying out any maintenance or cleaning work on the device!

Observe the safety instructions under 1.2!

Do not let any foreign objects fall into the grinding mechanism!!
9.1 Cleaning with GRINDZ™ Grinder Cleaner

We recommend cleaning your shop grinder once a month with our GRINDZ™ Grinder Cleaner.

Simply take the recommended dose of 70 - 80g for shop grinders and drop it into the empty grinder hopper. You can also use the cap of the jar for dosing. A full cap will yield between 35 - 40 grams.

Adjust the machine setting to medium and operate like standard grinding procedure. Once complete, we recommend passing twice as much original material through to purge any residue.

9.2 Cleaning the grinder casing

Clean the casing of your grinder every now and then with commercially available mild cleaning agents. In addition, you should also clean the hopper from time to time.

Do not let any foreign objects fall into the grinding mechanism!!

10. Spare Parts

Spare parts are usually ordered from your customer service centre or your local dealer. To ensure quick, correct processing of your order, the following information is absolutely required:

1. Type designation and serial number of the grinder (on the rating plate on the rear side of the grinder).

2. Color of the grinder
11. Wiring Diagram EK43 100-120V 50Hz

Stückliste / Parts list

<table>
<thead>
<tr>
<th>Artikelnr</th>
<th>Article No</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>303723</td>
</tr>
<tr>
<td>X1</td>
<td>302466</td>
</tr>
<tr>
<td>X2</td>
<td>310198</td>
</tr>
<tr>
<td>X3</td>
<td>302461</td>
</tr>
<tr>
<td>F1</td>
<td>302311</td>
</tr>
<tr>
<td>K1</td>
<td>101688</td>
</tr>
<tr>
<td>S1</td>
<td>305756</td>
</tr>
<tr>
<td>S2</td>
<td>305755</td>
</tr>
<tr>
<td>C1</td>
<td>101846</td>
</tr>
<tr>
<td>C2</td>
<td>302320</td>
</tr>
<tr>
<td>M1</td>
<td>103010</td>
</tr>
</tbody>
</table>
Wiring Diagram EK43 100-120 60Hz
Wiring Diagram EK43 220-240V 50Hz

- L1: Black
- L2: Blue
- N: Brown
- PE: White
- SN: Red
- GE: Yellow
- GE/GR: Green/Yellow
- M: 1~ 4P

Legend:
- C1: Start Capacitor 360 µF 150 V~ 50/60 Hz with Discharge Resistance 4.7 K Ohm
- C2: Run Capacitor 50 µF 250 VAC 50 Hz
- S1: Thermal-Magnetic Circuit Breaker
- S2: Switch, Part 09.00.2653 60 Hz, Part 09.00.2617
- X1: Connecting Block 5-Pin Type 323/H55
- E1: Power Cord 5/3x 14 AWG 105°C
- E1: Motor Protector 9700 H 08-11
Wiring Diagram EK43 220V 60Hz

Montageplatte
Mounting plate

Sockel
Base

W1
Plug connection cable w. angle plug 23

X1
Terminal strip PI 325/420/6, 6-pole.

F1
Over-current protection switch 7A 2-5000-63-P1

S1
Switch ON - OFF E1 Switch 2-pol. / 2A max.

E1
Start capacitor 0,06µF 250/50Hz H1 type H

C1
Running capacitor 25µF / 450V UL JA 25
Wiring Diagram EKK43 100V 50Hz

Diagram showing electrical components and connections with labels and annotations in German. The diagram includes wiring connections, legends for colors and symbols, and technical specifications for components such as capacitors, switches, and connection types.

Key symbols and annotations:
- `sw`: black
- `bl`: blue
- `br`: brown
- `ws`: white
- `ri`: red
- `ge`: yellow
- `gr`: green
- `gr/ge`: green/yellow

Legend:
- S1: Wendeschalter Type CA25B
- C1: Anlaufkondensator 550 µF 150V~ 50/60Hz, mit Entladewiderst. 4.7 K Ohm
- C2: Betriebkondensator 50 µF 250 VAC 60 Hz
- W1: Netzanschlüßeleitung mit Stecker SJT 3x14 AWG 105°C
Wiring Diagram EKK43 100-120V 60Hz

- L1
- PE
- N
- X1
- W1
- F1
- S1
- C1
- S2
- C2
- E1
- M

Legend:
- sw = black
- bl = blue
- br = brown
- ws = white
- rt = red
- ge = yellow
- gn = green
- gn/ge = green/yellow

- Überstromschutzschalter ETA 2-5700-107-P10-1050-114
  THERMAL-MAGNETIC CIRCUIT BREAKER
- Anlaufkondensator 360µF 150V~ 50/60Hz, mit Entladewiderst. 4,7 K Ohm
  START-CAPACITOR WITH DISCHARGE-RESISTANCE
- Betriebskondensator 50 µF 250 VAC 60 Hz
  RUN-CAPACITOR
- Wendeschalter Type CA258
  THERMAL-MAGNETIC CIRCUIT BREAKER
- Zentrifugal-Schalter: beweglicher Teil: 09.000.2653 60 Hz, feststehender Teil: 09.001.2617
- Klemmleiste 5-polig Type 323/HDS
  CONNECTING BLOCK
- Netzanschlussleitung mit Stecker SJT 3x14 AWG 105° C
  POWER CORD
- Motorprotector SOB.135.05 Thermik
  MOTOR PROTECTOR
EC Declaration of Conformity

The manufacturer: MAHLKÖNIG GmbH & Co. KG
Tilsiter Straße 142
D - 22047 Hamburg
Tel.: +49 (0) 40 69 69 40 - 0
Fax: +49 (0) 40 69 39 72 - 1

hereby declares that the below mentioned product:

product type: device for food processing
machine description: Coffee grinder
machine typ: EKK43 / EGL43 / EGM43 / EKM43 / EPP43 / EML43

is in compliance with the following directives and regulations:

- The provisions of the Machinery Directive 2006/42/EG
- The Low Voltage Directive 73/23/EWG
- The Directive on the restriction of use of certain hazardous substances in electrical and electronic equipment 2011/65/EU
- The EU chemicals regulation (REACH – Regulation) (EG) Nr. 1907/2006

Supplements in Europe:

Regulation 1935/2004 Requirements for materials and the objects with Food comes into contact

Documentation Agent: Sven Erdmann

Address of the proxy documentation: See the address of the manufacturer

Done in Hamburg on: 01.08.2013

Function of subscriber: General Manager

Name of signatory: Philipp Baumberger

Signature
13. Warranty Conditions

1. The warranty period is 1 year from the date of purchase.

2. The warranty covers all damages that can be attributed to inferior materials or defective workmanship. Corresponding grinders will be repaired or replaced free-of-charge, with the exception of transport or freight charges. Transport is the responsibility of the customer. Therefore, avoid damages with all returns by correct packing.

3. The grinder may only be opened for cleaning purposes in accordance with the Operating Instructions.

4. This warranty does not cover damages which have occurred through: Improper usage, improper maintenance, lack of servicing, usage for purposes other than those intended, incorrect installation, incorrect voltage, breakage, natural wear or for reasons beyond our sphere of influence.

5. In order to maintain the warranty, only original spare parts and accessory parts may be used.

6. Observe in addition our General Delivery Conditions in their respective current version.

7. The manufacturer is in no way liable for consecutive or secondary damages.

8. The warranty does not cover costs emerging from repairs conducted by non-authorized personnel.
Notes:
Notes:
Notes:
Subject to change without prior notice!

July 2016

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Tel.: +49 (0)40 / 69 69 40-0

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