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# FESTOOL

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RG 130 E

768840\_002







## GB

#### Reinstating grinder RG 130 E – Original instruction

## 1 Symbols

Double insulation



Warning of general danger



Risk of electric shock



Use protective goggles!



Wear ear protection!



Use protective gloves!



Read the instructions

Not to be included in municipal refuse

Advice or tip

## 2 Technical data

Nominal voltage	220-240 V ~
Mains frequency	50 / 60 Hz
Power input	1600 W
Adjustable rpm	3000 – 7700 min <sup>-1</sup>
ToolØ	130 mm
Weight	3.8 kg
Protection class	

## 3 Prescribed usage

The machine is designed for straightening concrete surfaces, smooth transfers on boarding, removing plaster, paint, glue residues, coating, corrosion, and for cleaning concrete and wooden surfaces.

The machine is constructed for use with special wheels recommended by the manufacturer and they must not be used with a wheel made from connected ABRASIV material.

The machine can only be used for dry grinding using an efficient suction device.

Noncompliant use of the machine is a sole responsibility of the user.

## 4 Control Elements

- [1-1] Switch
- [1-2] Arresting lever
- [1-3] Suction extension
- [1-4] Revolutions regulation wheel
- [1-5] Front handle
- **[1-6]** Spindle arresting button
- [1-7] Brush tilting segment
- [1-8] Brush
- [1-9] Handle manual screw
- [2-1] Flange
- [2-2] Grinding wheel
- [2-3] Clamping nut
- [2-4] Key
- [2-5] Spindle
- [3-1] Brush tilting segment
- [4-1] Brush
- [4-2] Screws with washers
- [4-3] Cover [4-4] Springs

Accessories that are illustrated or described here are not always included in the scope of delivery.

The specified illustrations can be found at the beginning of the operating instructions.

## 5 Notes on Safety Prevention

5.1 General Safety Instructions

WARNING! Read all safety warnings and all

instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## 5.2 Safety instructions for all operations

## Safety Warnings Common for level grinding:

- a) This power tool is intended to function as a level grinder. Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
- b) Operations such as cutting is not recommended to be performed with this power tool. Operations for which the power tool was not designed may create a hazard and cause personal injury.
- c) Do not use accessories which are not specifically designed and recommended by the tool manufacturer. Just because the accessory can be attached to your power tool, it does not assure safe operation.

- d) The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. Accessories running faster than their rated speed can break and fly apart.
- e) The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately guarded or controlled.
- f) The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool. Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- g) Do not use a damaged accessory. Before each use inspect the accessory such as ABRASIV wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.
- h) Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small ABRASIV or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
- Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.
  Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- j) Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.

- k) Position the cord clear of the spinning accessory. If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- I) Never lay the power tool down until the accessory has come to a complete stop. The spinning accessory may grab the surface and pull the power tool out of your control.
- m) Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- Regularly clean the power tool's air vents. The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- Do not operate the power tool near flammable materials. Sparks could ignite these materials.
- p) Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electrocution or shock.

## Further safety instructions for all operations Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an ABRASIV wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. ABRASIV wheels may also break under these conditions.

Kickback is the result of power tool misuse and/ or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up. The operator can control torque reactions or kickback forces, if proper precautions are taken.
- b) Never place your hand near the rotating accessory. Accessory may kickback over your

hand.

- c) Do not position your body in the area where power tool will move if kickback occurs. Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- d) Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- e) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

Additional safety instructions for grinding and cutting

Safety Warnings Specific for Grinding and ABRASIV Cutting-Off Operations:

- a) Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel. Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.
- b) The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator. The guard helps to protect operator from broken wheel fragments and accidental contact with wheel.
- c) Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel. ABRASIV cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
- d) Always use undamaged wheel flanges that are of correct size and shape for your selected wheel. Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.
- e) **Do not use worn down wheels from larger power tools.** Wheel intended for larger power tool is not suitable for the higher speed of a smaller tool and may burst.

#### Additional safety instructions for wire brushing operations

#### Safety Warnings Specific for Wire Brushing Operations:

 a) Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush. The wire bristles can easily penetrate light clothing and/or skin.

b) If the use of a guard is recommended for wire brushing, do not allow any interference of the wire wheel or brush with the guard. Wire wheel or brush may expand in diameter due to work load and centrifugal forces.

#### Further safety instructions

- The machine may not be used in damp and wet spaces, outdoor when it is rainy, foggy or snowy or in the explosive environment.
- Before use always inspect the flexible lead and the plug. Have the defects repaired by a specialist repair shop.
- Outside the premise use only approved extension leads and cable connections.
- Apply the machine to the material only when switched on.
- Do not carry the machine by the lead.
- Do not work on a ladder.
- When operating the tool, use protective gloves and tough footwear.
- When operating the tool, use goggles and ear protectors.
- The dust generated during work is harmful to health. When operating the tool, use the dust extraction system and the respirator.
- Materials containing asbestos must not be processed.
- Flexible power supply cable always route from the tool backwards.
- Use only grinding wheel recommended by the manufacturer.
- The machine can only be used with attached protective cover and attached front handle.
- Insert the flexible supply plug into the socket only if the machine is off.
- Make yourself sure whether the material that is going to be machined does not contain electric, water or gas lines an injury could occur.
- Do not grind metal surfaces, nails or screws.
- The machine is not allowed to be operated by a person under 16 years of age.
- **Only for AS/NZS:** The tool shall always be supplied via residual current device with a rated residual current of 30 mA or less.

### 5.3 Noise / Vibration Information

Measured values determined according to EN 60 745. Typically the A-weighted noise level of the tool are: Sound pressure level: 95 dB (A) Sound power level: Inaccuracy of measurement 106 dB (A) K = 1.5 dB (A)



#### **Operating noise**

### Damage to hearing

▶ Use ear protection!

Vibration emission value  $a_{\rm h}$  (vector sum for three directions) and uncertainty K measured in accordance with EN 60 745:

Uncertainty

a<sub>h, AG</sub> = 5.2 m/s<sup>2</sup> K = 1.5 m/s<sup>2</sup>

The specified emissions values (vibration, noise) – are used to compare machines.

– They are also used for making preliminary estimates regarding vibration and noise loads during operation.

– They represent the primary applications of the power tool.

Increase possible for other applications, with other insertion tools or if not maintained adequately. Take note of idling and downtimes of machine!

## 6 Activation



## WARNING

Risk of accident if the machine is operated using unauthorised voltages or frequencies.

- The mains voltage and the frequency of the power source must correspond with the specifications on the machine's name plate.
- In North America, only Festool machines with the voltage specifications 120 V/60 Hz may be used.

## 6.1 Switching on - off

#### Switching on

- Push the locking lever [1-2] forwards to unlock the on/off switch [1-1].
- Press the on/off switch [1-1] at the same time.
- Continuous operation: simultaneously pressing the locking lever [1-2] forwards locks the on/off switch.

The electric power tool starts.

# Only make contact with the material once the machine has reached operating speed.

#### Switching off

► Lift the electric power tool from the processed

material.

- ▶ Release the on/off switch [1-1].
- During continuous operation: briefly press the on/off switch [1-1].

## WARNING

#### Risk of injury Rebound, ejected parts

Before setting down the machine, wait until the rotating tool has come to a complete stop.

## 6.2 Regulation electronics

#### Starting current limitation

Electronically controlled continual running secures device acceleration without back thrust. Due to starting current limitation in the device, 16 A protection is sufficient.

### Electronic revolutions pre-setting

Use the revolutions regulator **[1-4]** for smooth revolutions pre-setting:

Level 1: 3000 min <sup>-1</sup>	Level 4: 5800 min <sup>-1</sup>
Level 2: 4000 min <sup>-1</sup>	Level 5: 6700 min <sup>-1</sup>
Level 3: 5000 min <sup>-1</sup>	Level 6: 7700 min <sup>-1</sup>
Required number of revolut	ions depends on ap-

Required number of revolutions depends on applied grinding wheel and worked material.

## Switching off during back thrust

During sudden drop of revolutions under extreme load, the current input in motor stops. For restarting, the device must be first switched off and again switched on.

#### Protection against re-starting

Prevents the uncontrolled starting of the device after current supply cut off. For re-starting, the device must be first switched off and again switched on.

#### **Constant electronics**

Constant electronics maintains the number of revolutions during idle operation and under load to the same value; it guarantees a constant working shift and balanced stock removal.

## Heat protection during overloading

The safety electronics switches the motor cooling regime when the critical temperature is reached in order to protect it from overheating under permanent extreme load. The machine cannot be loaded, it runs on reduced rpm. After cooling in approx 3 - 5 min, the machine is fully loadable. Heat protection for devices heated during operation, reacts adequately sooner.

## 7 Operation

## 7.1 Fastening the grinding wheel

- Clean the flange [2-1] and fastening nut [2-3], as well as grinding wheel fastening areas [2-2].
- Mount grinding wheel [2-2]. Flange fitting must fit the grinding wheel aperture.
- Press in the spindle blocking plunger [1-6]. Press in the blocking plunger only when device is switched off and spindle not active.
- ► Turn the spindle until blocking plunger fits in.
- Screw the fastening nut [2-3] by fitting it from the grinding wheel [2-2] on the spindle [2-5].
- ► Fasten the fastening nut [2-3] with key [2-4].
- Before starting the device, make sure the grinding wheel rotates smoothly.
- Use only grinding wheels recommended by the manufacturer and designed flange, which are included in the package.

### 7.2 Positioning the handle

Sufficiently release the handle manual screw [1-9] and tilt the handle [1-5] to set the most suitable working position. Re-fasten the manual screw [1-9].

### 7.3 Dust suction

Always work with connected suction device. Insert the suction device pipe into the suction extension **[1-3]**. In order to increase the efficiency, we recommend to use pipes with  $\emptyset$  36 mm.

Use solely suction devices with antistatic pipe design.

## 7.4 Lifting the front brush

For wall lifting, it is possible to lift the lifting segment **[3-1]** – see figure **[3]**.

## 7.5 Brush replacement

After wear and tear of the brush **[4-1]**, it must be replaced.

- ► At first unscrew the screws with washers [4-2], remove the brush from the cover [4-3] with the springs [4-4].
- Insert the springs into the holes in the new brush and secure the in the holes by turning them clockwise – see figure [4 a]. Deflecting the springs from vertical direction does not constitute a defect.
- Then remove the brush with fitted springs, attach them on the cover [4-3] from the front end and tilt them – see figure [4 b].
- Make sure that the springs in the cover fit into the guiding holes and screw back the screws with washers [4-2].

## 7.6 Grinding wheel

Depending on the application area, various grinding wheels are available – see table on page 16 Use solely wheels of Festool trademark, which guarantees the grinding output of the machine.

## 8 Service and maintenance



#### Risk of accident, electric shock

- Always pull the plug out of the socket before performing any type of work on the machine.
- All maintenance and repair work which requires the motor housing to be opened, must only be carried out by an authorised service workshop.
- Wrapped electric tools can be stored in a dry place without heating, with temperatures not lower than -5 °C. Unwrapped electric tools can only be stored in dry places with temperatures not lower than +5 °C, without sudden changes in the temperature.
- To ensure the airflow is sufficient, cooling openings of the motor must be always clean and free.
  - The machine is equipped with special selfdisconnecting brushes. When the brushes are worn, the power supply is automatically disconnected, and the machine is stopped.

EKAT

Customer service and repair. Only through manufacturer or service workshops: Please find the nearest address at: www. festool.com/service

Use only original Festool spare parts! Order No. at:

www.festool.com/service

## 9 Environment

**Do not throw the power tool in your household waste!** Dispose of the machine, accessories and packaging at an environmentally-responsible recycling centre! Observe the valid national regulations.

**EU only:** European Directive 2002/96/EC stipulate that used electric power tools must be collected separately and disposed of at an environmentally responsible recycling centre.

#### Information on REACh:

www.festool.com/reach

## 10 EU Declaration of Conformity

## Reinstating grinder Serial no.

RG 130 E 769232,768758,768759 Year of CE mark: 2013

We declare under sole responsibility that this product comply with all relevant requirements of the following directives, norms or normative documents:

2006/42/EC, 2004/108/EC, 2011/65/EU, EN 55 014-1, EN 55 014-2, EN 60 745-1, EN 60 745-2-3, EN 61 000-3-2, EN 61 000-3-3.

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ppa.

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## 11 The table with recommended types of grinding wheels

Grinding wheel		Application	Electronic ad- justing wheel
	DIA STONE-RG 130	Very hard materials, such as concrete with hardness over C20, cast concrete	6
	DIA HARD-RG 130	Very hard materials, such as concrete with hardness over C10, hard paints	6
	DIA ABRASIV-RG 130	Soft materials with higher abrasion, such as fresh concrete, tiling glue, hard plaster, sandstone	6
	DIA UNI-RG 130	Multipurpose use, such as paints (on concrete, plaster, wood, glue, hard plaster)	4 - 6
	DIA THERMO-RG 130	Tenacious and thermo-elastic materials, such as paints, protective paints, elastic glue	5 – 6
AC			