

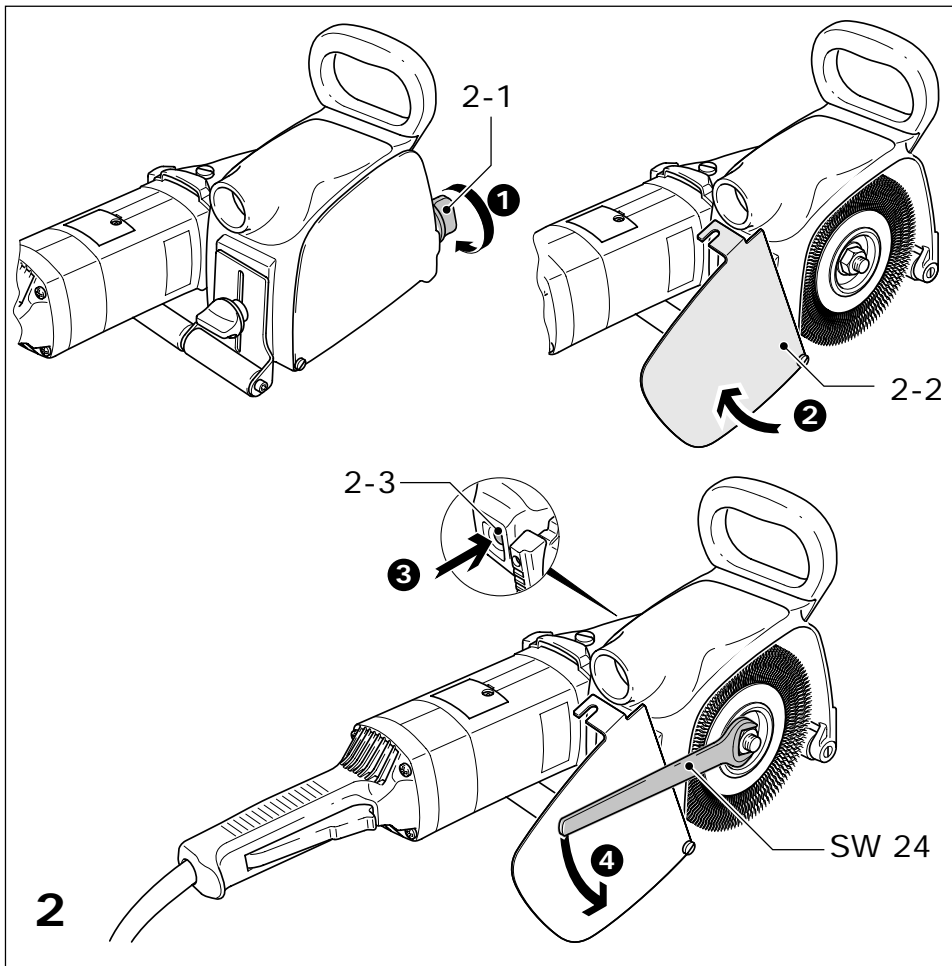
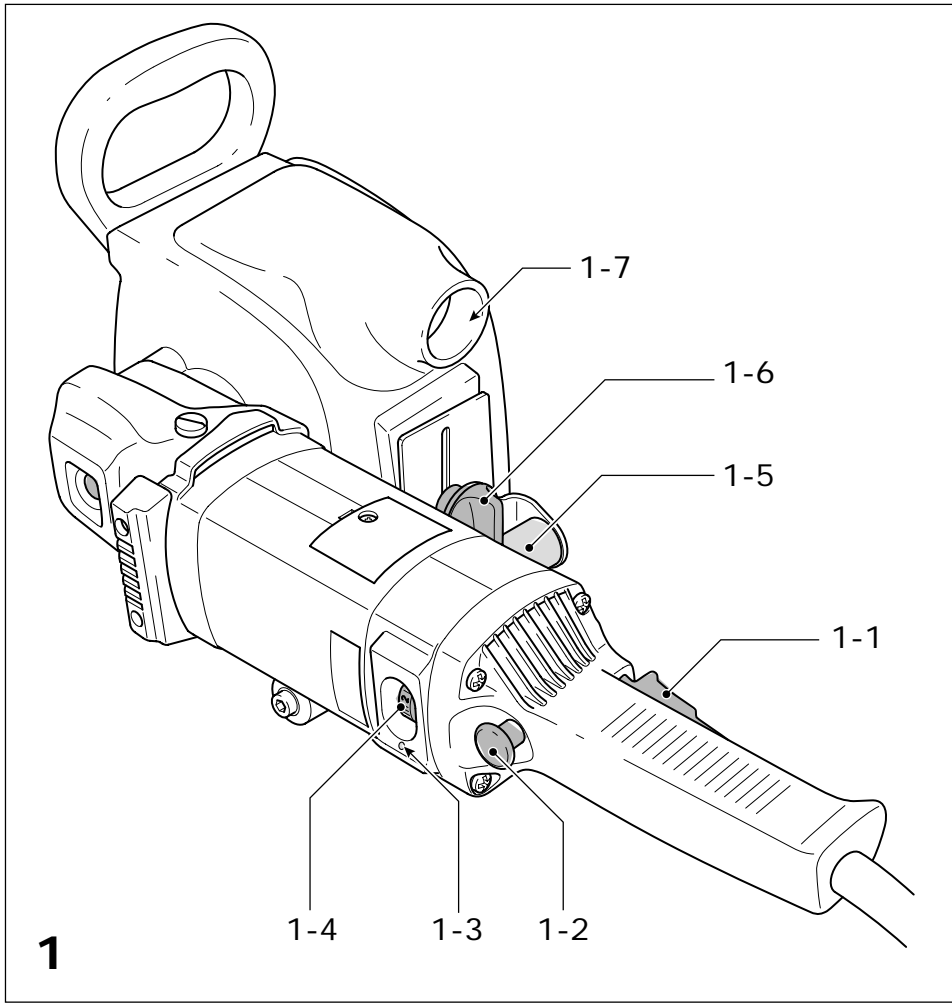
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RAS 180.03 E-HR







RUSTOFIX RAS 180.03 E-HR

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1 Symbols



Warning of general danger



Electric shock



Read the operating instructions/
notes

2 Technical data

Power consumption	1500 W
Rotational speed	800 – 4000 rpm
Tool dia.	150 mm
Spindle thread	M 14
Dust extractor connection diameter	27 mm
Protection class	□/ II
Weight	7.5 kg

The specified illustrations are at the beginning of this operating manual.

3 Machine features

- [1-1] On/off switch
- [1-2] Switch-on lock
- [1-3] LED
- [1-4] Speed control
- [1-5] Support roller
- [1-6] Depth adjustment wheel
- [1-7] Extractor connector

4 Intended use

According to specifications, the machine is designed to brush and texture wooden surfaces.

The user bears the responsibility for damage and accidents caused by improper use.

5 Safety instructions

5.1 General safety instructions

- Before using the machine, carefully read all of the attached safety instructions and the operating manual.
- Keep all of the accompanying documents and pass on the documentation if the machine changes ownership.
- Never allow children to use the machine.

5.2 Machine-related safety instructions

- This machine is designed for brushing. Please read all of the safety information, instructions, illustrations and descriptions delivered with the machine. If the following instructions are not observed, this can result in an electric shock, fire and/or serious injury.
- Work such as roughing, polishing or abrasive cutting must not be carried out with this machine. Performing tasks for which the machine is not designed can create hazards and lead to injury.
- Never use accessories that were not specially developed and designed for this machine. Just because an accessory part can be fitted on your machine does not guarantee danger-free operation.
- The permissible rotational speed of the accessory must be at least as high as the

maximum speed specified on the machine. Accessories that rotate faster than the permissible level can rupture.

- The outside diameter and the thickness of the accessory must be within the specified size range of the machine. Accessories with incorrect dimensions cannot be sufficiently protected or controlled.
- The bore diameter of discs, flanges, support plates and all other accessories must fit the machine spindle exactly. Accessories with an unsuitable diameter are out of round, vibrate excessively and lead to loss of control.
- Do not use damaged accessories. Check accessories such as wire brushes for loose or broken wires before using. Every time the machine is dropped, check the machine and accessories for damage, or install undamaged accessories. Following the check and assembly of accessories, ensure that all persons are beyond the rotating range of the tool and run the machine for one minute at maximum speed. Damage accessories usually break completely during this test time.
- Wear personal protective equipment. Depending on the application, use a shield or protective goggles. If practical, wear a dust mask, ear protection, safety gloves and a work apron suitable to protect against impact or small sanding or workpiece parts. The protective goggles must be capable of blocking flying debris caused by the various work operations. The dust mask or device must be capable of filtering particles generated during work. Continuous exposure to loud noise can cause loss of hearing.
- Ensure that persons standing near the machine are at a safe distance from the work area. All persons in the work area must wear personal protective equipment. Parts of the workpiece or broken accessories can fly off and cause injury outside the immediate work area.
- Keep the power cable away from rotating parts. If you lose control, the power cable could be cut or become stuck and your hand or arm could be drawn into the rotating parts.
- Never set the machine down until the tool has stopped completely. Turning tools can

catch on the storage area, causing you to lose control of the machine.

- Never allow the machine to operate while carrying it at your side. The rotating tool can catch on your clothing by accident and cause serious cutting injuries.
- Clean the cooling air openings on your machine on a regular basis. The cooling air fan sucks the dust into the machine and excessive deposits of metal dust can result in electrical hazards.
- Never operate the machine near combustible materials. Sparks can ignite these materials.
- Never use tools that have to be liquid-cooled. Water and other liquid coolants can cause potentially fatal electric shocks.

Cause and prevention of kickbacks

A kickback is a sudden reaction to jamming or catching of a rotating disc, a support plate, a brush or other accessory. Jamming or catching results in a rapid standstill of the rotating accessory, whereby, as a counter-reaction, an out-of-control machine is accelerated around the jamming point in a direction of rotation opposed to the accessory. If, for example, a sanding disc is jammed or caught by the workpiece, the disc circumference can dig into the workpiece surface at the jamming point, causing the disc to be expelled. The disc can either fly towards or away from the user, depending on the direction of rotation of the disc at the jamming point.

This can also cause sanding discs to break. A kickback is the result of misuse of the machine and/or incorrect method of work or operation and can be avoided by closely observing the following precautionary measures.

- Always hold the machine firmly and position your body and arm such that you can control any kickback force. Always use the additional handle, if included in the delivery, to ensure optimum control over kickbacks or reaction torques during start-up. The user can control reaction torques or kickbacks if suitable precautionary measures are taken.
- Never place your hands near rotating tools. Tools can kick back over your hand.
- Never position your body in the area in which the machine moves in the event of

a kickback. A kickback accelerates the machine in the direction of rotation opposed to the disc at the jamming point.

- Take particular care when working in corners, on sharp edges, etc. Take care to prevent the machine from jumping back or getting caught. Corners, sharp edges or a jump back tend to cause the rotating tool to catch, thus leading to a loss of control or a kickback.
- Never install a chainsaw or saw blades with teeth to cut wood. Such blades often cause kickback and loss of control.

Special safety instructions for brushing

- Remember that the brush may scatter wires in all directions during normal use. Do not place the brush under excessive strain and risk breaking the wires. Wires can easily penetrate thin clothing and skin.
- If the wire brushes require a protective cover during use, prevent the wire brush/disc from making any kind of contact with the protective cover. The working and centrifugal forces that occur during operation may increase the diameter of the wire brushes/discs.

5.3 Emission levels

Levels determined in accordance with EN 60745 are typically:

Sound pressure level	84 dB(A)
Noise level	95 dB(A)
Measuring uncertainty allowance K	= 4 dB
Measured acceleration	3 m/s ²



WARNING

The noise produced during work may damage your hearing.

- ▶ Always use ear protection.

6 Commissioning



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 a voltage specification of 120 V/60 Hz may be used.

The tool is fitted with an on/off switch [1-1] with switch-on lock [1-2]. Press the switch-on lock to release the switch. Pressing and holding the switch-on lock briefly after the machine starts locks the switch while the motor is running. The motor switches off when you press the on/off switch again.

7 Machine settings



WARNING

Risk of accident, electric shock

- ▶ Always pull the plug out of the socket before performing any type of work on the machine.

7.1 Electronics

The machine features full-wave electronics with the following features:

Smooth start-up

The electronically controlled smooth start-up ensures that the machine starts up jolt-free.

Speed control

You can regulate the rotational speed steplessly between 800 and 4000 rpm using the adjusting wheel [1-4].

The following table serves as a guideline to help you select the best electronics setting for the working material. The transition between each speed setting is smooth.

Processed material Working procedure	Electronics setting
Rustic texture on wood (LD 85)	3 - 5
Brushing wood (KB 80)	2 - 3
Brushing stained parts (BG 85)	2 - 3

Constant speed

The preselected motor speed remains constant through electronic control. This ensures a uniform cutting speed even when under load.

Overload safety device

In extreme applications, the current consumption may far exceed the permitted nominal value. A "safety coupling" integrated in an electronic overload safety device switches off the motor and prevents it from burning out. Motor operation resumes immediately after the load is relieved.

Temperature cut-out

To protect against overheating (burning out of motor), an electronic temperature monitoring system has been installed. Prior to reaching a critical motor temperature, the safety electronics switches off the motor. After a cooling time of approx. 3-5 minutes, the machine can be operated again at full load. The machine requires less time to cool down when idling.

LED indicator

The rotary sander is fitted with an electronic adjusting wheel and a green and red LED [1-3]. A green lit LED indicates that the rotary sander is operating in normal mode. A red lit LED indicates that the motor is operating at approx. 70% overload. The overload or temperature cut-out switches off the motor if overloaded for longer periods.

However, alternately flashing green and red LEDs indicate that the brushes are completely worn (remaining working hours max. 10 hours). In this case, have an authorised after-sales service workshop replace the carbon brushes the next day. Always replace these brushes with special carbon brushes available in pairs otherwise the LED indicators will not work.

7.2 Changing the brushes

- ▶ Loosen the screw [2-1].
- ▶ Swivel the silver cover [2-2] down.
- ▶ Press and hold the spindle lock [2-3] and unscrew the hexagon nut (size 24) on the brush.
- ▶ Insert a different brush.
- ▶ Tighten the hexagon nut to secure the brush and then close the silver cover.
- ⓘ For brushes LD 85 and BG 85, use the accompanying centring disc.

7.3 Adjusting the texture depth

- ▶ Set the required texture depth using the thumbwheel [1-6].

7.4 Dust extraction



CAUTION

Breathing in dust damages the respiratory passage.

- ▶ Always connect the machine to a dust extractor.
- ▶ When performing work that generates dust, always wear a dust mask.

You can connect a Festool extractor to the extractor connector [1-7]. The extractor hose in the Festool extractor is 27 mm in diameter.

8 Working with the machine

The RUSTOFIX gives beams or wooden panelling a rustic texture.

Working method

After the first working procedure with the wire brush LD 85, protruding fibres give the wooden surface a rough feel. In the second working procedure, plastic bristles KD 80 sand the textured surface to lend a smooth finish.

- ▶ Always guide the machine evenly and in the direction of the grain.
- ▶ Hold the machine with both hands to ensure safe guidance.
- ▶ Do not overload the machine by pressing with excessive force! The best results are achieved with moderate application pressure.

- ▶ Maintain the speed specified. (see Chapter 7.1)

Use the correct brush for the relevant working procedure:

Working procedure	Brush
Texturing	Rustilon brush LD 85 (standard wire brush)
Intermediate sanding	Rustilon brush KB 80 (plastic bristles)
Smoothing	Rustilon brush BG 85 (sisal bristles)

Note

- Do not use the KD 80 brush with plastic bristles for texturing. The brush is not suitable for heavy-duty texturing.
- The BG 85 is the only brush suitable for processing stained or oiled parts. All other brushes will be damaged.

9 Service and maintenance



WARNING

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 housing to be opened must only be carried out by an authorised service workshop.

To ensure constant air circulation, always keep the ventilation openings clean and free of blockages.

The machine is equipped with self-disconnecting special carbon brushes. If they are worn, power is interrupted automatically and the machine comes to a standstill (see Chapter "Electronics").

10 Disposal

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.

11 Accessories

Use only original Festool accessories and Festool consumable material intended for this machine because these components are designed specifically for the machine. Using accessories and consumable material from other suppliers will most likely affect the quality of your working results and limit any warranty claims.

Machine wear or your own personal workload may increase depending on the application. Protect yourself and your machine, and preserve your warranty claims by always using original Festool accessories and Festool consumable material!

The order numbers of the accessories and tools can be found in the Festool catalogue or on the Internet under "www.festool.com".

12 Warranty

For our tools, we give warranty for material and production defects in accordance with the locally applicable legal provisions, but in any case for at least 12 months. Within the EU member states, the warranty period is 24 months (verification through invoice or delivery note). Damage caused by the operator, natural wear, overloading, incorrect handling or through the use of the equipment not specified in the operating manual, or damage which was known at the time of purchase, is not covered by the warranty. Furthermore, damage caused by the use of non-original Festool accessories and consumable material (e.g. sanding pads) is also excluded. Complaints can only be recognised if the tool is returned while still assembled to the supplier or an authorised Festool Customer Service workshop. Keep the operating manual, safety instructions, spare parts list and purchase receipt in a safe place. Otherwise the respective, current warranty conditions of the manufacturer shall apply.

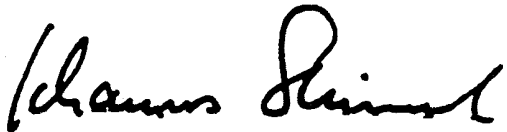
Note

Due to continuous research and development work, we reserve the right to make changes to the technical content of this documentation.

13 Declaration of Conformity

We declare under sole responsibility that this product complies with the following norms or normative documents:

EN 60 745, EN 55 014, EN 61 000 in accordance with the regulations stipulated in Directives 98/37/EC (until 28 Dec. 2009), 2006/42/EC (from 29 Dec. 2009), 2004/108/EC.



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