FESTOOL

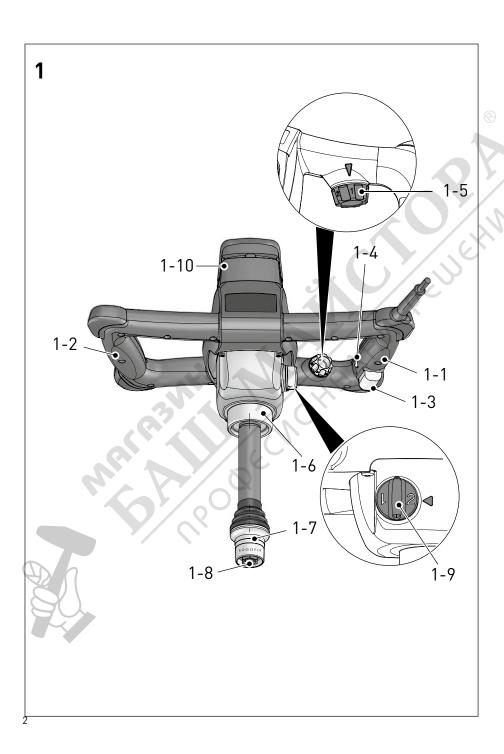
| D | Originalbetriebsanleitung | 4 |
|-----------|--------------------------------------|----|
| GB | Original operating manual | 10 |
| F | Notice d'utilisation d'origine | 16 |
| E | Manual de instrucciones original | 22 |
| | Istruzioni per l'uso originali | 28 |
| NL | Originele gebruiksaanwijzing | 34 |
| S | Originalbruksanvisning | 40 |
| FIN | Alkuperäiset käyttöohjeet | 45 |
| DK | Original brugsanvisning | 51 |
| N | Originalbruksanvisning | 57 |
| P | Manual de instruções original | 62 |
| RUS | Оригинал Руководства по эксплуатации | 68 |
| CZ | Originální návod k použití | 74 |
| PL | Oryginalna instrukcja eksploatacji | 79 |

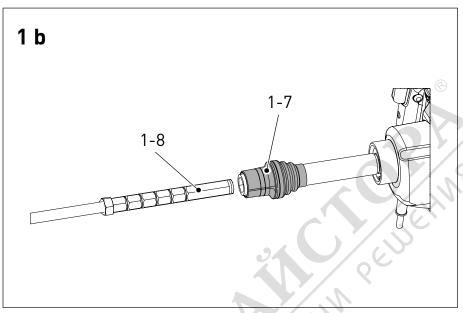
MX 1000 E EF MX 1000/2 E EF MX 1200 E EF

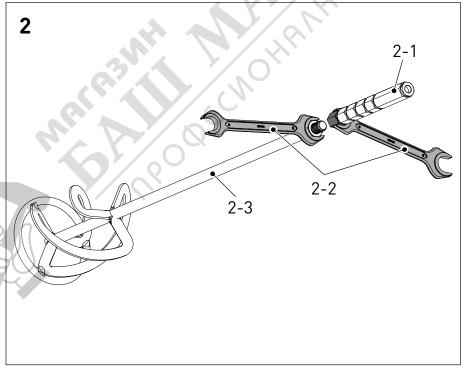












Original operating manual



1 Technical Specifications

| Stirrer | MX 1000 E EF | MX 1000/2 E EF | MX 1200 E EF |
|---|---------------|-------------------|---------------|
| Voltage | 220 – 240 V | 220 – 240 V | 220 – 240 V |
| Frequency | 50/60 Hz | 50/60 Hz | 50/60 Hz |
| Connected load | 1020 W | 1020 W | 1200 W |
| Idling speed | | | |
| 1st speed | 360 – 630 rpm | 360-630 rpm | 360 – 630 rpm |
| 2nd speed | - | 580 – 1010 rpm | - |
| Electronic speed preselection | • | • | . 9/3 |
| Temperature-dependent overload protection | - | • (| 7/100 |
| 2-speed switch | - | 34 | () |
| Tool adapter | 4 | M14x2/E R G O F I | x Q |
| Stirrer – Ø max | 120 mm | 120 mm | 140 mm |
| Collar -∅ | 57 mm | 57 mm | 57 mm |
| Weight | 4.5 kg | 4.9 kg | 4.5 kg |
| Protection rating | 11/0 | 11/0 | II / 🗆 |

2 Symbols



Double insulation



Warning of general danger



Risk of electric shock



Read the operating instructions/notes!



Wear a dust mask!



Wear ear protection!



Wear protective gloves!



Do not throw in the household waste!

①

Advice or tip

3 Operating equipment

- [1-1] Right handle
- [1-2] Left handle
- [1-3] Switch with switch protection
- [1-4] Locking button
- [1-5] Speed control
- [1-6] Collar
- [1-7] Casing
- [1-8] ERGOFIX adapter
- [1-9] Speed selection switch (MX 1000/2 E EF)

[1-10] Ventilation opening

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.

4 Intended use

The device is designed for mixing powdered materials, such as mortar, plaster, adhesives and non-solvent paints, varnishes and similar substances. The manufacturer accepts no liability for possible damage or accidents caused by using or operating

the device inappropriately or incorrectly.

5 Safety instructions

1

WARNING!

All applicable legal requirements concerning occupational safety must be adhered to, along with the safety instructions that are cited in the section "Safety instructions" and all other generally applicable health and working principles. The manufacturer accepts no liability for any damage that is caused by unauthorised changes to the machine.

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 Machine-related safety instructions

- Before starting up any tool, you must check the flexible power cable and the plug. You must have any defects fixed by a professional.
- Never touch the machine with wet hands when it is connected to the power mains.
- The switch must be in the OFF position before you connect it to the mains.
- The container with the material that is to be mixed must be stabilised to prevent it from slipping on the floor.
- Only use the tool until the stirring rod diameter that is specified in the technical specifications has been reached.
- Load the machine in such a way that the speed does not decrease too much or the machine is forced to stop.
- Always guide the flexible power cable from the tool to the rear. Never pull hard on the flexible power cable and never set it on or guide it over any sharp edges.
 - Only work in a safe and stable position.

 Take into account that there will be a reactionary torsional momentum.
- Do not mix any solvents or solventcontaining substances with a flash point of below 21 °C.
- Start up and run down the maschine un the mixing container only.
- Do not reach into the mixing container with your hands or insert any other objects into

- while mixing is in progress.
- We recommend that you wear work gloves and protective goggles when using the mixer.
 Regulation require that you wear close-fitting clothing.
- 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 Other safety risks

Even in cases where the machine is used correctly and all relevant safety instructions have been adhered to, the design engineering of the machine and its operation mean that there may also be the following safety risks:

- Danger that may be caused by the flexible power cable.
- A concentration of dust which is harmful to health when working in an area that is not sufficiently ventilated.
- Injuries caused by touching electrified parts when removing the machine or its parts if the plugs on the flexible power cable have not been removed from the socket.
- You must only use original Festool spare parts.

5.4 Emission levels

Levels determined in accordance with EN 60 745 are typically:





CAUTION

The noise produced during work can damage your hearing.

► Always use ear protection.

Vibration emission value a_h (vector sum for three directions) and uncertainty K measured in accordance with EN 60 745:

 $a_h < 2.5 \text{ m/s}^2$

Uncertainty

 $\ddot{K} = 1.5 \text{ m/s}^2$

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 Starting up and using the machine



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.





WARNING

Risk of accident, electric shock

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





CAUTION

Inhaling the dust may damage the respiratory tract.

When working with dust, you must wear respiratory protection.

6.1 Tightening the stirrer (see Fig. [2])

- ► Screw in the stirrer [2-3] with endpiece M14x2 (wrench size 22) by turning it to the right in the adapter *ERGOFIX* [2-1] (wrench size 19) and use the wrench to tighten it.
- ► Fasten the ERGOFIX adapter to the stirrer bar, then insert the assembled stirrer into the slot of the spindle.

To set-up the working height see chapter 6.5.

6.2 Switching the machine on and off



Always hold the machine with both hands.

Pressing the switch [1-3] puts the machine into operation and taking your hand away from the switch stops the machine from working.

Using the switch button to control the speed (acceleration function switch)

You can use the switch [1-3] to change the level of the speed until it reaches the speed range that is set by the speed controller.

Continuous operation

By pressing the switch **[1-3]** as far as it goes and pressing the locking switch button **[1-4]** at the same time, you can activate continuous operation.

Press and release the switch button [1-3] again to switch off continuous operation.

6.3 Control electronics

Limiting the starting current

The electronically-controlled soft start ensures that the machine starts up smoothly.

At the same time, this also prevents the materials to be stirred from spurting out of the mixing container. Thanks to the low starting current of the machine, a 10 A fuse is sufficient.

Electronic speed preselection

You can use the speed controller **[1-5]** to set the speed:

| MX 1000 E EF, MX 1200 E EF | | | | | | |
|----------------------------|-----|-----------|------|--|--|--|
| Level 1 | 360 | Level 4 | 520 | | | |
| Level 2 | 410 | Level 5 | 580 | | | |
| Level 3 | 470 | Level 6 | 630 | | | |
| MX 1000/2 E EF | | | | | | |
| 1st speed | | 2nd speed | | | | |
| Level 1 | 360 | Level 1 | 580 | | | |
| Level 2 | 410 | Level 2 | 670 | | | |
| Level 3 | 470 | Level 3 | 760 | | | |
| Level 4 | 520 | Level 4 | 840 | | | |
| Level 5 | 580 | Level 5 | 930 | | | |
| Level 6 | 630 | Level 6 | 1010 | | | |

The speed depends on the stirrer rod that is used and on the material that you want to process.

Overload protection

An electronic overload protection protects the motor from damage if there is an extreme overload. In this case, the motor remains at a standstill and only starts up again once the load has been removed. To restart the machine, you must switch it on again.

Constant Electronic function

The Constant Electronic function maintains an almost constant speed and load; this ensures that the material is stirred evenly.

Temperature-dependent overload protection

(VALID for the type MX 1000/2 E EF and MX 1200 E EF)

To protect the machine against overheating if you are using it for an extremely prolonged period, switch the safety electronics to the cooling mode as soon as the critical temperature is reached. You cannot load the machine and it runs at a reduced speed. Approx. 2 minutes after cooling, the machine is again ready for use and fully able to

take loads.

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

6.4 Speed selection switch

(VALID for the type MX 1000/2 E EF)

You can use the speed selection switch [1-9] to preselect two speed ranges:

| 1st speed | 2nd speed |
|---------------|----------------|
| 360 – 630 rpm | 580 – 1010 rpm |

The gears can be switched when the machine is running down, however not under full load.

6.5 *ERGOFIX* interface

Height setting

The working height of the machine can be individually adjusted to achieve an upright working position.

- ► Push the casing of the ERGOFIX adapter [1-7] in the direction of the machine to move it as far as it goes [1-7] and hold it tight.
- ▶ By pulling on the stirrer rod, you can pull the ERGOFIX adaptor [1-8] out of the machine spindle. In this way, you can adjust five different working heights. One step is 2 cm. The maximum adjustment movement is 8 cm.
- ► Then release the clamping ring of the ERGOFIX adapter [1-7] and check that the adapter [1-8] is seated securely in the machine spindle.

Quick change function



NOTE

- ▶ Ensure that the adapter [1-8] remains clean.
- ▶ Do not lubricate the adaptor [1-8].
- ▶ Only press the *ERGOFIX* casing [1-7] when the machine is not in operation.

The ERGOFIX interface enables you to easily and quickly remove the stirrer rod from the machine.

- ▶ Push the clamping ring of the ERGOFIX adapter [1-7] in the direction of the machine to move it as far as it goes and hold it tight.
- ▶ By pulling on the stirrer rod, you can pull the ERGOFIX adaptor [1-8] completely out of the machine spindle.

Changing the stirrer

- ① Adapter *ERGOFIX* **[2-1]** after worn-out of stirrer rod can be reused.
- ➤ Set the wrench [2-2] on the hexagon of the stirrer endpiece [2-3] and turn to the left to screw the stirrer rod out of the ERGOFIX adapter [2-1].

6.6 Stirrer

To mix different material mixtures together, use different Festool stirrers: see the catalogue





PJ Uni

For wall paints, emulsion paints, ready-made filler, ready-mix plaster, varnishes/glazes



RS

For wall paints, emulsion paints, pastes, varnishes casting compounds, bitumen, sludges





HS2

For tile adhesives, joint sealant, adhesive mortar, ready-mix plaster, screed, fillers, levelling compounds





For mortar, concrete, cement and lime plaster adhesive filler, screed, quartz-filled epoxy resin, thick bitumen coating





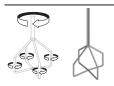
HS3L

For gypsum plaster, emulsion paints, varnishes wall paints, casting compounds



WS

For paints, varnishes, wall paints, emulsion paints, plasters, glues, tile adhesives



CS

For balancing weights, fillers, sealants, adhesives

6.7 Mains connection



WARNING

There is a risk of accidents occurring if you do not use the correct power supply.

The stirrer must only be operated with a single-phase alternating current with a nominal voltage of 220-240 V/50/60 Hz. In the 2nd level, the machine is protected against accidents caused by electrical current in accordance with the standard EN 60 745-1 and it has built-in radio interference suppression in accordance with the standard EN 55 014.

Before starting up the machine, check that the specifications on the type plate correspond to the actual voltage of the power supply.

If required, you can extend the flexible power cable as follows:

- Length 20 m, conductor cross-section 3×1.5 mm2
- Length 50 m, conductor cross-section 3x2.5 mm²

Only use extension cables that are suitable for outside use and that are marked accordingly.

Operating with electric generator (EG) with combustion motor drive

① The manufacturer of the stirrer does not provide any guarantee for incorrect operation of the stirrer with any EG.

The stirrer can be operated with an EG if the following conditions are met:

- The output voltage of the EG must always be within the range of 230 VAC ±10%, the EG must be equipped with Automatic Voltage Regulation (AVR). The stirrer must not work correctly without this regulation and may also become damage.
- The power of the EG must be at least 2.5 times greater than the connected load of the stirrer (i.e. 2.5 kW for MX 1000/ 1000/2, 3 kW for MX 1200)
- If you operate using an EG that does not have sufficient power, the speed may fluctuate and the power of the machine may decrease

6.8 Stationary use

The stirrer can be clamped into the MS 57 Festool stirrer stands at the \varnothing 57 mm collar **[1-6]**.

7 Service and maintenance



CAUTION

Never use a machine that is damaged in any way! (Damage also includes a ripped or worn flexible switch protection or clamping ring protection on the $E R \subseteq O F / X$ adapter).

Have a damaged machine repaired in an authorised Festool workshop.



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



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

- The ventilation holes on the motor hood must
- The machine automatically switches off if the carbon brushes are worn. The machine must be sent to the workshop for maintenance work.
- We recommend that you clean the machine regularly. Remove any dust, residual mixing material and any other dirt. If you use solventbased cleaning agents, these may damage the painted surfaces or the plastic parts. If you use these cleaning agents, we recommend that you test the effect of these agents on a small, concealed area. The ventilation holes on the motor hood must not be blocked
- Commission an authorised workshop to change brushes, the power cable etc.. If the machine is knocked in any way, it is also necessary to entrust an authorised workshop in order to prevent any mechanical or electrical danger arising.

 The packaged machine can be stored in a dry place without heating as long as the inside temperature does not fall below -5 °C. The unpackaged machine must only be stored in a dry, enclosed space where the temperature does not fall below +5 °C and where no extreme temperature fluctuations occur.

8 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

9 EU Declaration of Conformity

| Stirrer | Serial no. |
|-----------------------|----------------|
| MX 1000 E EF | 768868, 769228 |
| MX 1000/2 E EF | 768592, 769230 |
| MX 1200 E EF | 768593 |
| Year of CE mark: 2013 | |

We declare under sole responsibility that this product complies with the following 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 61 000-3-2, EN 61 000-3-3.

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