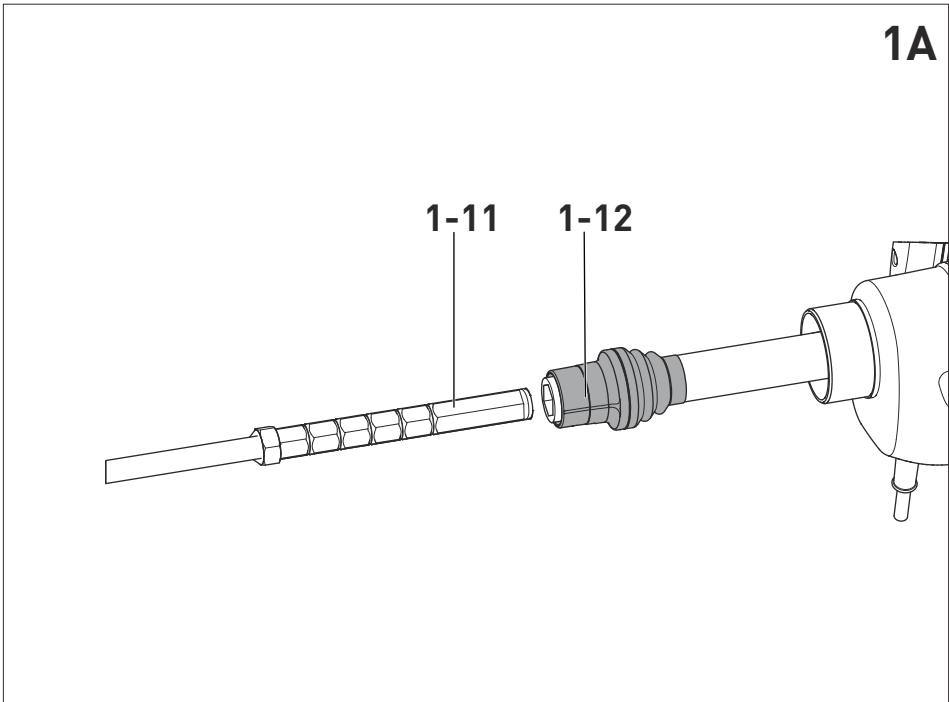
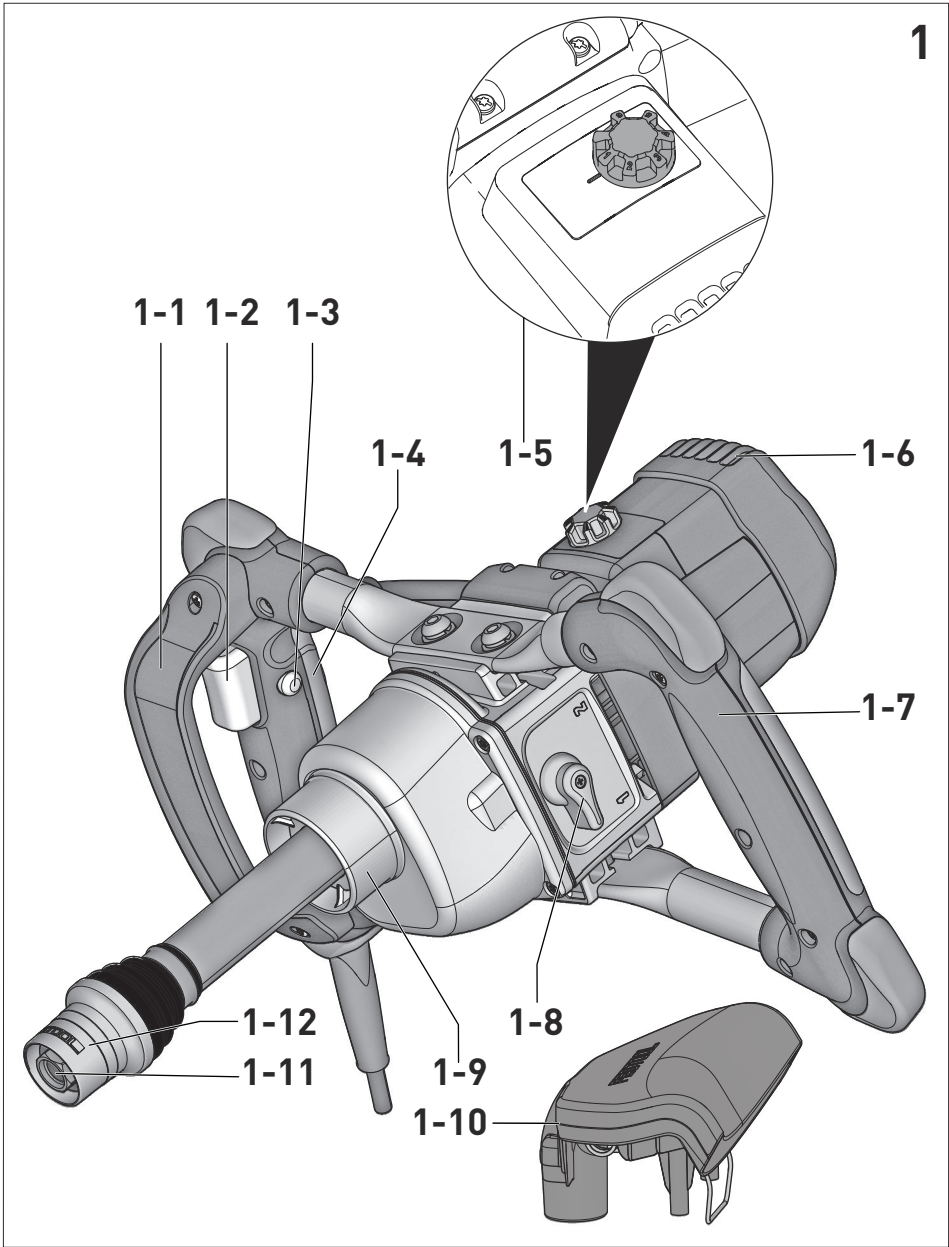
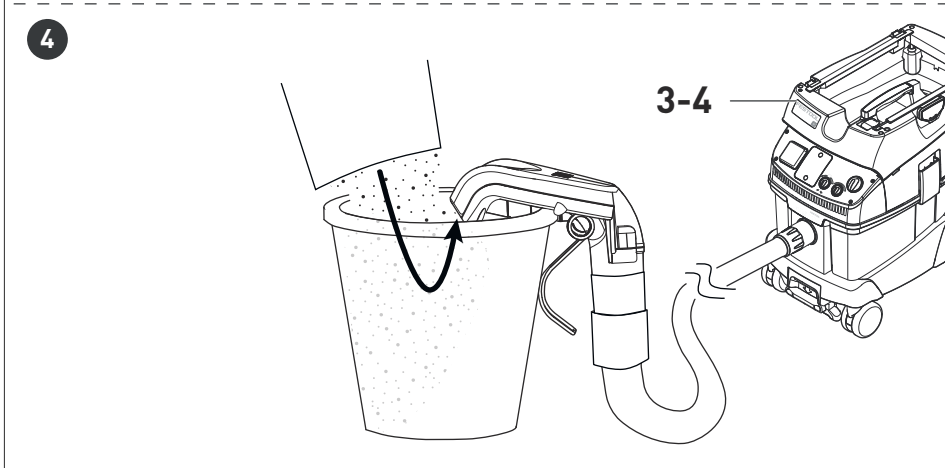
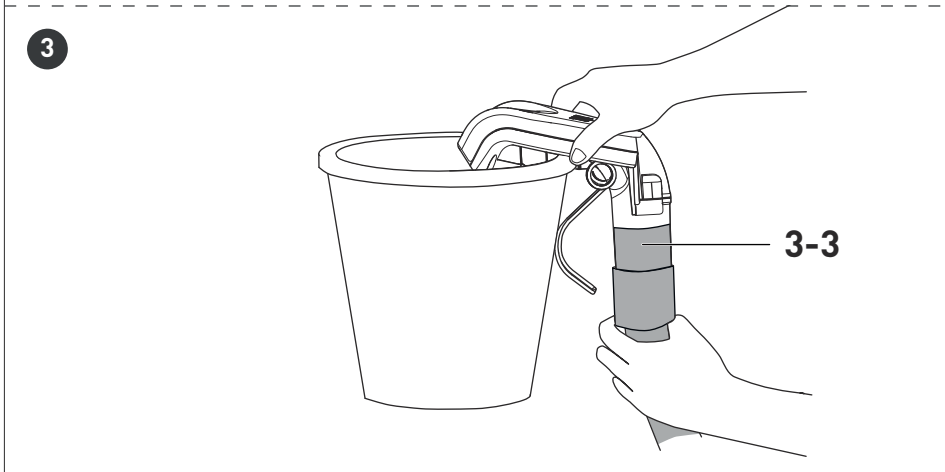
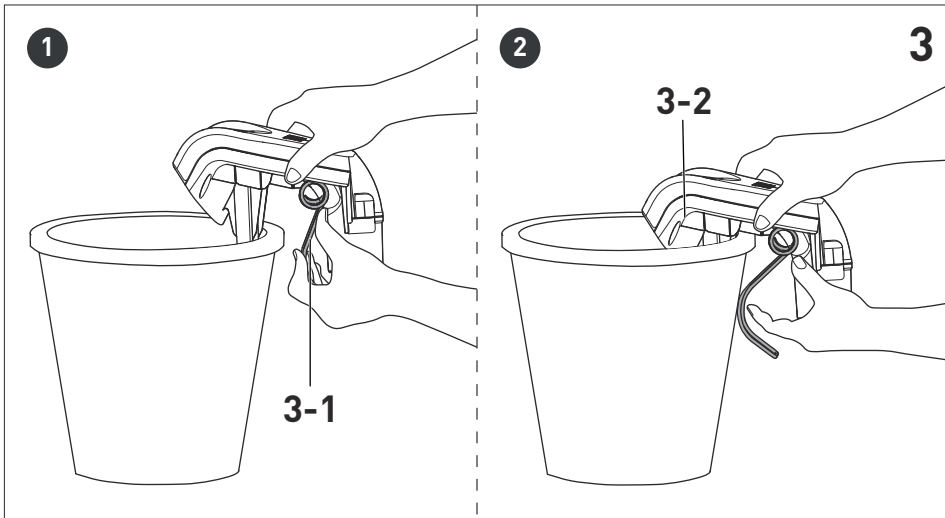
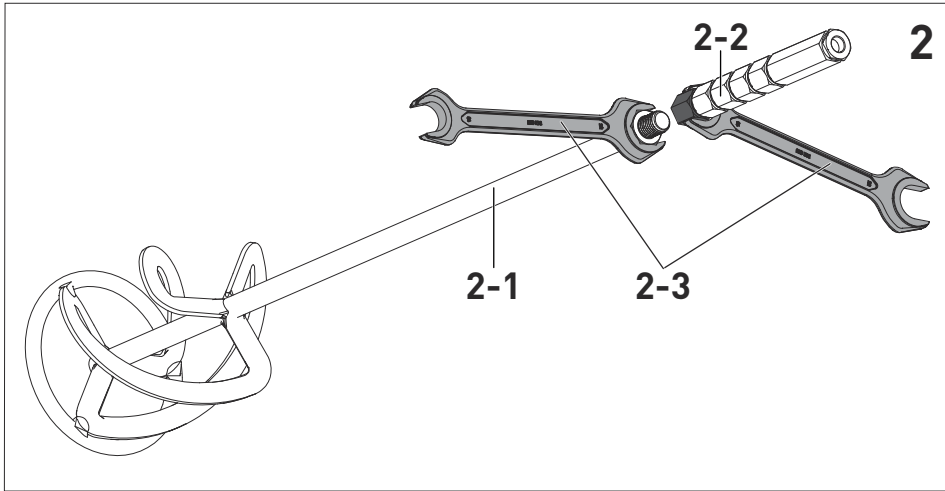


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## **MX 1200/2 RE EF** **MX 1600/2 RE EF**







Rührwerk Stirrer Mélangeur	Seriennummer * Serial number * N° de série * (T-Nr.)
MX 1200/2 RE EF	204710
MX 1600/2 RE EF	204712

**de EU-Konformitätserklärung.** Wir erklären in alleiniger Verantwortung, dass dieses Produkt mit allen relevanten Anforderungen folgender EU-Richtlinien übereinstimmt, und folgende Normen oder normative Dokumente zugrunde gelegt wurden:

**en EU Declaration of Conformity.** We declare under sole responsibility that this product complies with all the relevant requirements in the following EU Directives, and following standards and normative documents were applied:

**fr Déclaration de conformité de l'UE.** Nous déclarons, sous notre seule responsabilité, que ce produit satisfait à toutes les exigences pertinentes des directives UE suivantes et repose sur les normes ou documents normatifs suivants :

**es Declaración UE de conformidad.** Declaramos bajo nuestra responsabilidad que este producto cumple todos los requisitos relevantes de las siguientes directivas de la UE y que se han tomado como base las siguientes normas o documentos normativos:

**it Dichiarazione di conformità UE.** Dichiariamo sotto nostra unica responsabilità che il presente prodotto sia conforme a tutti i requisiti di rilevanza definiti dalle seguenti Direttive UE e che siano stati applicati le seguenti norme o i seguenti documenti normativi:

**nl EU-conformiteitsverklaring.** Wij verklaren en stellen ons ervoor verantwoordelijk dat dit product volledig voldoet aan alle volgende EU-richtlijnen en volgende normen of normatieve documenten daaraan ten grondslag gelegd werden:

**sv EU-försäkran om överensstämmelse.** Vi förklarar på eget ansvar att denna produkt uppfyller alla relevanta krav enligt följande EU-direktiv och baseras på följande normer eller normgivande dokument:

**fi EU-vaatimustenmukaisuusvakuutus.** Vakuutamme yksinomaisella vastuulla, että tämä tuote täyttää seuraavien EU-direktiivien kaikki olennaiset vaatimukset ja se on seuraavien standardien tai standardiasiakirjojen mukainen:

**da EU-overensstemmelseserklæring.** Vi erklærer med eneansvar, at dette produkt er i overensstemmelse med alle relevante krav i følgende EU-direktiver, og at følgende standarder eller normative dokumenter danner grundlag for det:

**nb EU-samsvarserklæring.** Vi erklærer under eneansvar at dette produktet oppfyller alle relevante krav i følgende EU-direktiver og at følgende standarder eller normative dokumenter er blitt lagt til grunn:

**pt Declaração de conformidade UE.** Sob nossa inteira responsabilidade, declaramos que este produto está de acordo com todas as exigências relevantes das seguintes diretivas UE, tendo sido tomadas por base as seguintes normas ou documentos normativos:

**ru Декларация о соответствии ЕС.** Мы со всей ответственностью заявляем, что данная продукция соответствует всем применимым требованиям следующих Директив ЕС, стандартов и нормативных документов:

**cs Prohlášení o shodě EU.** Prohlašujeme s veškerou odpovědností, že tento výrobek splňuje všechny příslušné požadavky následujících směrnic EU a že byly použity následující normy nebo normativní dokumenty:

**pl Deklaracja zgodności UE.** Niniejszym oświadczamy na własną odpowiedzialność, że produkt ten spełnia wszystkie obowiązujące wymogi następujących dyrektyw UE, norm lub dokumentów normatywnych.

2006/42/EC, 2014/30/EU, 2011/65/EU

EN 62841-1:2015 + AC:2015

EN 62841-2-10:2017

EN 55014-1:2017

EN 55014-2:2015

EN 61000-3-2:2014

EN 61000-3-3:2013

EN 50581:2012



Unterzeichnet für und im Namen von/  
Signed on behalf of and in name of/  
Signé pour et au nom de

**Festool GmbH**

Wertstr. 20, D-73240 Wendlingen  
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Wendlingen, 2020-09-11

ppa.

Markus Stark  
Head of Product Development

i. A. Q.

Ralf Brandt  
Head of Product Conformity

\* im definierten Seriennummer-Bereich (S-Nr.) von 40000000 - 49999999

in the specified serial number range (S-Nr.) from 40000000 - 49999999

dans la plage de numéro de série (S-Nr.) de 40000000 - 49999999

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## 1 Symbols



Warning of general danger



Warning of electric shock



Read the operating instructions and safety instructions.



Wear ear protection.



Wear a dust mask.



Wear protective gloves.



Wear protective goggles.



Wear sturdy shoes.



Safety class II



Do not dispose of it with domestic waste.



Tip or advice



Handling instruction



CE marking: Confirms the conformity of the power tool with the European Community directives.

## 2 Safety warnings

### 2.1 General power tool safety warnings



**WARNING! 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.

**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.

### 2.2 Safety instructions for stirrers

- **Hold the tool with both hands at the intended handles.** Loss of control can cause personal injury.
- **Ensure sufficient ventilation when mixing flammable materials to avoid a hazardous atmosphere.** Developing vapour may be inhaled or be ignited by the sparks the power tool produces.
- **Do not mix food.** Power tools and their accessories are not designed for processing food.
- **Keep the cord away from the working area.** The cord may be entangled by the mixer basket.
- **Ensure that the mixing container is placed in a firm and secure position.** A container that is not properly secured may move unexpectedly.
- **Ensure that no liquid splashes against the housing of the power tool.** Liquid that has penetrated the power tool can cause damage and lead to electric shock.
- **Follow the instructions and warnings for the material to be mixed.** Material to be mixed may be harmful.
- **If the power tool falls into the material to be mixed, unplug the tool immediately and have the power tool checked by a qualified repair person.** Reaching into the bucket with the tool still plugged in can lead to electric shock.
- **Do not reach into the mixing container with your hands or insert any other objects into it while mixing.** Contact with the stirrer basket may lead to serious personal injury.
- **Start up and run down the tool in the mixing container only.** The stirrer basket may bend or spin in an uncontrolled manner.

## 2.3 Further safety instructions

- Check the plug and cable on a regular basis and, if they are damaged, have them replaced by an authorised customer service workshop.
- The switch must be in the OFF position before you connect it to the mains.
- Always guide the power cable from the tool to the rear. Never pull hard on the power cable and never place it on or guide it over any sharp edges.
- Only use a stirring rod with a diameter that is specified in the technical data.
- Only work in a safe and stable position.
- Do not work in damp environments.
- If moisture has penetrated the power tool, unplug the mains plug and have the power tool checked by an authorised customer service workshop.
- Do not process explosive substances (e.g. highly flammable solvents) or materials with a flash point of below 21 °C.
- Do not stir hot materials.
- Observe processing regulations provided by the manufacturer.
- Take into account that there will be a reactionary torsional momentum.
- Do not touch the connected power tool with wet hands.



**Wear suitable personal protective equipment:** Ear protection, protective goggles, dust mask for work that generates dust and protective gloves when changing tools, sturdy shoes.

- **Only for AS/NZS:** The tool shall always be supplied via residual current device with a rated residual current of 30 mA or less.

## 2.4 Other 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 the following safety risks may also arise:

- Danger caused by the 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 power cable have not been removed from the socket.

- You must only use original Festool spare parts.

## 2.5 Emission levels

The levels determined in accordance with EN 62841 are typically:

Sound pressure level	$L_{PA} = 87 \text{ dB(A)}$
Sound power level	$L_{WA} = 98 \text{ dB(A)}$
Uncertainty	$K = 1.5 \text{ dB}$



### CAUTION

**Noise generated when working**  
**Risk of damage to hearing**

- ▶ Use ear protection.

Vibration emission level  $a_h$  (vector sum for three directions) and uncertainty K measured in accordance with EN 62841:

MX 1200/2 RE EF	$a_h = 3.5 \text{ m/s}^2$ $K = 1.5 \text{ m/s}^2$
MX 1600/2 RE EF	$a_h = 3.0 \text{ m/s}^2$ $K = 1.5 \text{ m/s}^2$

The specified noise emission values

- have been measured in accordance with a standardised test procedure, can be used to compare one power tool with another,
- and can also be used for a provisional assessment of the load.



### CAUTION

**The emission values may deviate from the specified values. This is dependent on how the tool is used and the type of workpiece being machined.**

- ▶ The actual load during the entire operating cycle must be evaluated.
- ▶ Depending on the actual load, suitable protective measures must be defined in order to protect the operator.

## 3 Intended use

The power tool is designed for mixing powdered materials, such as mortar, plaster, adhesives and non-solvent paints, varnishes and similar substances.



The user is liable for improper or non-intended use.

## 4 Technical data

Stirrer	MX 1200/2 RE EF	MX 1600/2 RE EF
Voltage	220–240 V	220–240 V
Frequency	50–60 Hz	50–60 Hz
Power consumption	1200 W	1500 W
Idling speed		
1st gear	150–360 rpm	150–300 rpm
2nd gear	320–780 rpm	320–650 rpm
Electronic speed preselection	0	0
Temperature-dependent overload protection	0	0
2-speed switch	0	0
Tool holder	M14x2/ErgoFix	M14x2/ErgoFix
Stirrer – max. diameter	140 mm	160 mm
Collar Ø	57 mm	57 mm
Weight as per EPTA procedure 01:2014	6.3 kg	6.7 kg

## 5 Parts of the device

- [1-1]** Hoop guard
- [1-2]** Switch with switch guard
- [1-3]** Locking button
- [1-4]** Right handle
- [1-5]** Speed control
- [1-6]** Vents
- [1-7]** Left handle
- [1-8]** Speed selector switch
- [1-9]** Flange
- [1-10]** Dust extraction system MX-A
- [1-11]** Adapter ErgoFix <sup>[2]</sup>
- [1-12]** Sleeve

Accessories shown or described are not always included in the scope of delivery.

The specified illustrations appear at the beginning of the Operating Instructions.

## 6 Operation



### WARNING

#### Unauthorised voltage or frequency.

##### Risk of accidents

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



### WARNING

#### Risk of injury, electric shock

- ▶ Always disconnect the mains plug from the socket before performing any work on the machine.



### WARNING

#### Hazardous dust

- ▶ Wear a dust mask.



### WARNING

#### Risk of injury, electric shock

- ▶ Allow the power tool to acclimatise before use.

[2] ErgoFix adapter as delivered pre-installed in sleeve [1-12].

## 6.1 Tightening the stirrer (see figure 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 - one on the right handle [1-4] and one on the left handle [1-7].

The switch [1-2] serves as on/off switch (press = ON, release = OFF).

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

You can use the switch [1-2] 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 [1-2] as far as it goes and pressing the locking switch button [1-3] at the same time, you can activate continuous operation. Press and release the switch button [1-2] again to switch off continuous operation.

## 6.3 Electronics

### Smooth start-up

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

### Speed controller

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

* MX 1200/2 RE EF		** MX 1600/2 RE EF	
1st speed	* **	2nd speed	* **
Level 1	150 150	Level 1	320 320
Level 2	200 200	Level 2	440 440
Level 3	220 240	Level 3	470 520
Level 4	290 265	Level 4	570 570
Level 5	330 280	Level 5	680 600
Level 6	360 300	Level 6	780 650

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

### Overload protection

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 speed

The electronics maintain an almost constant speed and load; this ensures that the material is mixed evenly.

### Temperature-dependent overload protection

To protect the machine against overheating if it is being used for an extremely prolonged period, the safety electronics switch the motor to 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.

### Restart protection

The built-in restart protection prevents the power tool from starting up again automatically if the power is disconnected during continuous use. To put the power tool back into operation, it must first be switched off and then on again.

## 6.4 Speed selector switch

Two speed ranges can be preselected with the speed selector switch [1-8]:

* MX 1200/2 E EF/ ** MX 1600/2 E EF	
1st speed	2nd speed
* 150–360 rpm	320–780 rpm
** 150–300 rpm	320–650 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 [1-12] 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 out of the machine spindle. In this way, you can adjust five dif-



ferent working heights. One step is 2 cm. The maximum adjustment movement is 8 cm.

- ▶ Then release the clamping ring of the Ergo-Fix adapter **[1-12]** and check that the adapter **[1-11]** is seated securely in the machine spindle.

### Quick change function

#### NOTICE

- ▶ Ensure that the adapter **[1-11]** remains clean.
- ▶ Do not lubricate the adaptor **[1-11]**.
- ▶ Only press the ErgoFix casing **[1-12]** when the machine is not in operation.

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

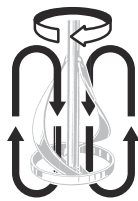
- ▶ Push the clamping ring of the ErgoFix adapter **[1-12]** in the direction of the machine to move it as far as it goes and hold it tight.
- ▶ By pulling on the stirrer rod, you can pull the ErgoFix adaptor **[1-11]** completely out of the machine spindle.

### Changing the stirrer

- ⓘ 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 Stirring rods

A range of different Festool stirrer rods are suitable for mixing a variety of material mixtures, see catalogue or website at: [www.festool.co.uk](http://www.festool.co.uk).



#### RS2

For wall paints, emulsion paints, paste, clear coat, casting compounds, bitumen, slurry-type seal coating



#### HS2

For tile cement, filling compounds, flooring mixtures, ready-mix plasters, screed, smoothing cement, filler mixtures



#### HS3R

For mortar, concrete, cement plaster, lime plaster, mounting binder, screed, quartz-filled epoxy resin, bitumen, thick coating



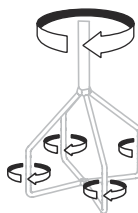
#### HS3L

For gypsum plaster, emulsion paints, clear coats, wall paints, casting compounds



#### WS2

For paints, clear coats, wall and emulsion paint, paste, glue, tile cement



#### CS

For compounds, fillers, sealants, adhesives

### 6.7 Dust extraction



#### WARNING

##### Hazardous dust

##### Damage to the respiratory passage

- ▶ Always work with an extractor.
- ▶ Comply with national regulations.
- ▶ Wear a dust mask.



## WARNING

### Risk of injury, electric shock

- ▶ Always disconnect the mains plug from the socket before performing any work on the machine.

### Assembling the dust extraction system MX-A

- ▶ ❶ Retract the spring [3-1].
- ▶ ❷ Attach the dust extraction system MX-A [3-2] to the bucket rim.
- ▶ ❸ Attach the dia. 36 mm suction hose [3-3] (or dia. 27 mm.) to the dust extraction unit MX-A.
- ▶ ❹ Connect the dust extractor [3-4].

### 6.8 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 62841 and it has built-in radio interference suppression in accordance with the standard EN 55014.

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 mm<sup>2</sup>
- Length 50 m, conductor cross-section 3×2.5 mm<sup>2</sup>

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

### Operating with electric generator (EG) with combustion motor drive

- ❗ 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 damaged.

- The power of the EG must be at least 2.5 times greater than the connected load of the stirrer (i.e. 3 kW for MX 1200/2 RE EF, 3.75 kW for MX 1600/2 RE EF)
- If you operate using an EG that does not have sufficient power, the speed may fluctuate and the power of the machine may decrease.

## 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 ErgoFix adapter).**

- ▶ Have a damaged machine repaired in an authorised Festool workshop.



## WARNING

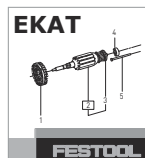
### Risk of injury, electric shock

- ▶ Always pull the mains plug from the socket before performing any servicing and maintenance work.
- ▶ All maintenance and repair work which requires the motor housing to be opened should always be carried out by an authorised service workshop.



**Customer service and repairs** must only be carried out by the manufacturer or service workshops. Find the nearest address at:

[www.festool.co.uk/service](http://www.festool.co.uk/service)



Always use original Festool spare parts. Order no. at:

[www.festool.co.uk/service](http://www.festool.co.uk/service)

- The ventilation holes [1-6] on the motor hood must not be blocked.
- 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 dispose of the device in the household waste!** Recycle devices, accessories and packaging. Observe applicable national regulations.

**EU only:** In accordance with the European Directive on waste electrical and electronic equipment and implementation in national law, used power tools must be collected separately and handed in for environmentally friendly recycling.

**Information on REACH:** [www.festool.com/reach](http://www.festool.com/reach)