170900.0525/a

Plošná fréza

Planski rezkalnik

Rovinná fréza

PF 80-18

Planfräse Originalbetriebsanleitung de Face milling cutter Translation of the original operating manual en Fraise à surfacer Traduction de la notice d'emploi originale fr Fresa a spianare Traduzione delle istruzioni per l'uso originali it Vlakfreesmachine Originele gebruiksaanwijzing nl Fresa de planear Manual de instrucciones original es Pintajyrsinkone Alkuperäiset käyttöohjeet fi Planfräs Originalbruksanvisning SV Planfræser Original driftsvejledning da Плоскорезный фрезер Оригинальное руководство по эксплуатации ru Frezarka czołowa Tłumaczenie oryginalnej instrukcji obsługi pl

Původní provozní návod

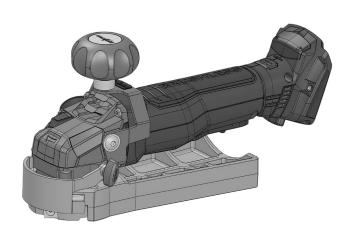
Izvirna navodila za uporabo

Originálny návod na používanie

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154

WARNUNG

Lesen Sie alle Sicherheitshinweise und Anweisungen. Versäumnisse bei der Einhaltung der Sicherheitshinweise und Anweisungen können elektrischen Schlag, Brand und/oder schwere Verletzungen verursachen. Bewahren Sie alle Sicherheitshinweise und Anweisungen für die Zukunft auf

WARNING

Please read all safety instructions and directions. Failure to comply with the safety instructions and directions can cause electric shock, fire and/or serious injuries. Please retain all safety instructions and directions for future reference.

AVERTISSEMENT

Veuillez lire toutes les consignes de sécurité et instructions. Tout non-respect des consignes de sécurité et instructions risque d'être à l'origine de décharges électriques, d'incendies et/ou de blessures graves. Conservez toutes les consignes et instructions pour pouvoir les relire à tout moment.

AVVERTENZA

Leggere tutte le avvertenze di sicurezza e le istruzioni. La mancanza del rispetto delle avvertenze di sicurezza e delle istruzioni possono causare scossa elettrica, incendio e/o gravi lesioni. Conservare tutte le avvertenze di sicurezza e le istruzioni per il futuro.

WAARSCHUWING

Lees alle veiligheidsaanwijzingen en instructies. Nalatigheid bij het naleven van de veiligheidsinstructies en aanwijzingen kan elektrische schok, brand en/of ernstige letsels veroorzaken. Bewaar alle veiligheidsaanwijzingen en instructies voor later gebruik.

ADVERTENCIA

Lea todas las indicaciones de seguridad e instrucciones. Si no se cumplen las indicacionesde seguridad e instrucciones, se pueden producir descargas eléctricas, incendios y/o lesiones graves. Guarde todas las indicaciones de seguridad e instrucciones para el futuro.

VAROITUS

Lue kaikki turvaohjeet ja käyttöohjeet. Laiminlyönti turvaohjeiden ja käyttöohjeiden noudattamisessa voi aiheuttaa sähköiskun, tulipalon ja/tai vakavia vammoja. Säilytä kaikki turvaohjeet ja käyttöohjeet tulevaisuuden varalle.

VARNING

Läs alla säkerhetsanvisningar och anvisningar. Underlåtenhet att följa säkerhetsanvisningar och anvisningar kan orsaka elstötar, brand och/eller allvarliga personskador. Behåll alla säkerhetsanvisningar och anvisning för framtida användning.

ADVARSE

Læs alle sikkerhedshenvisninger og instruktioner. En manglende overholdelse af sikkerhedshenvisningerne og instruktionerne kan føre til elektrisk stød, brand og/eller alvorlige kvæstelser. Opbevar alle sikkerhedshenvisninger og instruktioner til fremtidig brug.

ПРЕДУПРЕЖДЕНИЕ

Прочитайте все правила и инструкции по технике безопасности. Несоблюдение этих правил и инструкций по технике безопасности может привести к поражению электрическим током, возгоранию и/или другим серьезным травмам. Сохраните все правила и инструкции по технике безопасности для дальнейшего использования.

OSTRZEŻENIE

Przeczytać wszystkie przepisy bezpieczeństwa i wskazówki. Zaniedbanie przestrzegania przepisów bezpieczeństwa i wskazówek może prowadzić do porażenia prądem, pożaru i/lub ciężkich zranień. Zachować wszystkie przepisy bezpieczeństwa i wskazówki na przyszłość.

UPOZORNĚNÍ

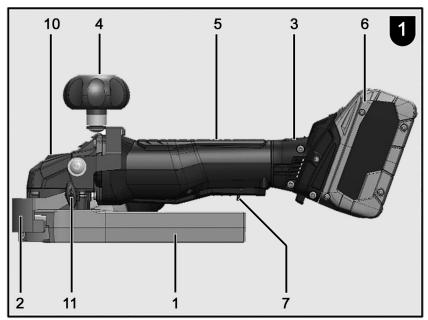
Přečtěte si všechna bezpečnostní upozornění a pokyny. Zanedbání bezpečnostních upozornění a pokynů může způsobit zásah elektrickým proudem, požár a/nebo vážná zranění. Všechna bezpečnostní upozornění a pokyny si ponechejte pro pozdější použití.

OPOZORILO

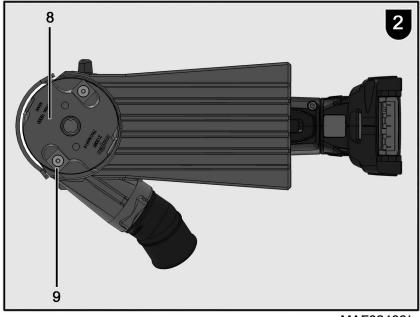
Preberite vsa varnostna opozorila in napotke. Neupoštevanje varnostnih opozoril in napotkov lahko povzroči udar električnega toka, požar in/ali hude telesne poškodbe. Vsa varnostna opozorila in napotke shranite za prihodnjo uporabo.

VÝSTRAHA

Prečítajte si bezpečnostné pokyny a inštrukcie. Nedbalé dodržiavanie bezpečnostných pokynov a inštrukcií môže spôsobiť úder elektrickým prúdom, požiar a/alebo ťažké zranenia. Uschovajte si všetky bezpečnostné pokyny a inštrukcie pre možné budúce použitie.



MAF02405/b



MAF02406/a

D - EG Konformitätserklärung

Wir bescheinigen hiermit, dass die Maschine PF 80-18 den angeführten EU-Richtlinien entspricht. Bei Konstruktion und Bau wurden die gelisteten Normen angewendet. Bevollmächtigter für die Zusammenstellung der technischen Unterlagen: Mafell AG

GB - EC Declaration of Conformity

We herewith confirm that the machine PF 80-18 complies with the EU directives quoted. The standards listed were used for design and construction, Empowered person for the configuration of the technical documents: Mafell AG

F - Déclaration CE de conformité

Nous déclarons par la présente que la machine PF 80-18 est conforme aux directives CE applicables comme suit. Lors de la construction, les règlements suivants ont été utilisés. Plénipotentiaires pour l'assemblage des documentations techniques: Mafell AG

I - Dichiarazione di conformità CE

Con la presente certifichiamo che la macchina PF 80-18 è conforme alle seguenti direttive CE applicabili. Nella progettazione e la costruzione sono state applicate le seguenti norme. Responsabile per la composizione della documentazione tecnica: Mafell AG

NL - EG conformiteitsverklaring

Wij bevestigen hiermede dat de machine PF 80-18 aan de vermelde EU-richtlijnen beantwoord. Bij constructie en bouw werden de vermelde normen toegepast. Gemachtigde voor de samenstelling van de technische documenten: Mafell AG

E - Declaración de conformidad CE

Con la presente se certifica que la máquina PF 80-18 cumple las directivas europeas mencionadas, las cuales forman la base tanto del diseño constructivo como de los procesos de fabricación. Apoderado legal para la compilación de la documentación técnica: Mafell AG

FIN - EY-vaatimustenmukaisuusvakuutus

Vakuutamme täten, että kone PF 80-18 vastaa mainittujen EU-direktiivien vaatimuksia. Sen suunnittelussa ja valmistuksessa on sovellettu luettelossa ilmoitettuja standardeja. Teknisten asiakirjojen laatimiseen valtuutettu henkilö: Matell AG

S - EG Konformitetsförklaring

Vi intygar härmed att maskinen PF 80-18 uppfyller angivna EU direktiv. De angivna normerna användes vid konstruktion och tillverkning. Befullmäktigad för sammanställningen av den tekniska dokumentationen: Mafeli AG

DK - EU overensstemmelseserklæring

Vi attesterer hermed, at maskinen PF 80-18 opfylder de angivede EU-direktiver. Konstruktion og bygning er udført iht. de angivede standarder.

Person, der er befuldmægtiget til at sammenstille det tekniske materiale: Mafell AG

RUS - Сертификат соответствия ЕС

Настоящим подтверждаем, что машина PF 80-18 отвечает требованиям указанных директив EC. При проектировании и изготовлении применялись перечисленные нормы. Уполномоченный представитель по составлению технической документации: Mafell AG

PL - Deklaracja zgodności UE

Niniejszym potwierdzamy, że maszyna PF 80-18 spełnia wymagania wyszczególnionych dyrektyw UE. W trakcie konstrukcji urządzenia zastosowano przedstawione normy. Pełnomocnik odpowiedzialny za zestawienie dokumentacji technicznej: Mafeli AG

CZ - PROHLÁŠENÍ O SHODĚ

Tímto prohlašujeme, že stroj PF 80-18 splňuje pokyny uvedených směrnic EU. Při plánování a sestavení byly využíty uvedené normy. Za sestavení technických podkladů zodpovídá: Mafell AG

SLO - ES izjava o skladnosti

S tem izjavljamo, da stroj PF 80-18 ustreza navedenim direktivam EU. Pri konstrukciji in izdelavi so uporabljeni našteti standardi. Za sestavo tehnične dokumentacije je pooblaščeno podjetje: Mafell AG

SVK - Vvhlásenie o zhode

Týmto potvrďzujeme, že stroj PF 80-18 zodpovedá uvedeným smemiciam EÚ. Pri projektovaní a stavbe boli použíté normy uvedené v zozname. Osoba poverená vyhotovením technických podkladov: Mafell AG



2006/42/EG 2014/30/EU 2011/65/EU EN 62841-1, EN 62841-2-17, EN 55014-1, EN 55014-2, EN ISO 12100, EN 847-1

PF 80-18

Art.-Nr.: 9M2102

Mafell AG

Beffendorfer Str. 4

D - 78727 Oberndorf, den 08.02.2025

Dipl.-Ing. (FH) Thorsten Bühl Vorstandsvorsitzender / CEO

i. V. Dipl.-Ing. Harald Schmid, MBA Leitung Entwicklung und Konstruktion

English

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1 Signs and symbols



This symbol is found in all places where you will find information for your safety.

Non-compliance with these instructions may result in very serious injuries.



This symbol indicates a potentially hazardous situation.

If this situation is not avoided, the product or objects in its vicinity may get damaged.



This symbol indicates tips for the user and other useful information.

2 Product information

for machine with Art.-No. 9M2102

2.1 Manufacturer's data

MAFELL AG, Beffendorfer Straße 4, D-78727 Oberndorf / Neckar, Phone +49 (0)7423/812-0, Fax +49 (0)7423/812-218, e-mail: mafell@mafell.de

2.2 Information on the rechargeable battery

The CE Declaration of Conformity with regard to the rechargeable batteries can be found on our website www.mafell.com in the footer area under the header Legal Matters, Declaration of Conformity.

2.3 Machine identification



CE symbol to document compliance with the basic safety and health requirements according to Appendix I of the Machinery Directive.



For EU countries only

Do not dispose of electrical tools together with domestic waste!

In accordance with the European directive 2002/96/EC on waste electrical and electronic equipment and transposition into national law, obsolete electrical tools must be collected separately and recycled in an environmentally-compatible manner.



Read the operating instructions. This reduces the risk of injury.



Protect the rechargeable battery from heat, excessive solar radiation, fire, frost, water and humidity.

Protect rechargeable battery packs from humidity!



Protect rechargeable battery packs from fire!

There is danger of explosion!



Cordless Alliance System (=CAS) is a cross-manufacturer battery pack system. Further information is available at www.cordless-alliance-system.com

2.4 Technical data

Type of motor
Operating voltage
Speed during idling
Hose connector diameter

Hose connector diameter

Cutter diameter

Weight without rechargeable battery

Dimensions (W x L x H)

brushless 18 V DC

10000 min⁻¹

35 mm (1.37 inches)

80 mm (3.15 inches)

2.8 kg (6.17 lbs)

160 x 316 x 162 mm (6.30 x 12.44 x 6.38

inches)

2.5 Emissions

The declared noise emission values have been measured in accordance with EN 62841-1 and may be used for comparing the tool with another and also in a preliminary assessment of exposure.



Danger

The noise emissions during actual use of the power tool can differ from the declared values depending on the ways in which the tool is used especially what kind of workpiece is processed.

Always wear hearing protection, even when the power tool ist running idle in addition to the trigger time!

2.5.1 Noise emission specifications

Noise emission values determined according to EN 62841:

 $\begin{array}{lll} \mbox{Sound pressure level} & \mbox{L_{PA} = 90 dB (A)} \\ \mbox{Uncertainty} & \mbox{K_{PA} = 3 dB (A)} \\ \mbox{Sound power level} & \mbox{L_{WA} = 98 dB (A)} \\ \mbox{Uncertainty} & \mbox{K_{WA} = 3 dB (A)} \end{array}$

The noise measurement was done without tool at idling speed.

2.5.2 Vibration specifications

The typical hand-arm vibration is less than 3.3 m/s².

2.6 Scope of supply

Face-milling cutter PF 80-18 complete with:

- 1 milling head
- 1 hose connector
- 2 operating tools
- 1 carrying case
- 1 operating manual
- 1 folder "Safety instructions"

2.7 Intended use

The face-milling cutter PF 80-18 is suitable for face and flush milling of material projections over flat surfaces made of solid wood or wood-like materials.

For this, the base plate of the machine must rest on the flat areas of the workpiece. Hand-guided processing is not permitted. (Risk of backlash)

Only use the tool included in the delivery.

Do not remove any safety devices to enable work other than that described above.

Any other use than described above is not permissible. The manufacturer cannot be held liable for any damage arising from such other use.

So as to use the machine as intended, comply with the operating, maintenance and repair instructions specified by Mafell.

Only use original Mafell / CAS rechargeable batteries and accessories.

2.8 Residual risks



Danger

Even if used in accordance with its intended purpose and despite conforming with the safety instructions, residual risks caused by the intended use that can lead to health consequences will always remain.

- Machine backlash.
- Touching the milling cutter below the protective ring.
- Touching the milling cutter when the protective ring is open.
- Putting down the machine while the tool is coasting to a standstill and a resulting unexpected movement of the machine or of an entrained object.
- Breakage and hurling out of the tool or parts of the tool.
- Hearing can be impaired when working for long periods without ear protectors.
- Emission of harmful wood dusts during longer operation without adequate ventilation.

3 Safety instructions



Danger

Always observe the following safety instructions and the safety regulations applicable in the respective country of use!

Please also read the safety information in the enclosed folder 070500 "Safety instructions" (according to standard 62841-1).

General instructions:

- Only hold the power tool by the insulated gripping surfaces when carrying out work during which the bit may hit concealed power lines. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Use clamps or another practical way to secure and support the workpiece to a stable platform.
 Holding the workpiece by your hand or against the body leaves it unstable and may lead to loss of control.
- Never work without the protection devices stipulated for the respective operating sequence and do not effect any modifications on the machine that could impair safety.
- Please note the instructions in Chapter 6.4 regarding flush milling.
- Children and adolescents must not operate this machine. This rule does not apply to young persons receiving training and being supervised by an expert.
- Do not put down the machine before the tool has coasted to a standstill.
- Protect the machine and the rechargeable batteries from humidity!
- Do not throw the rechargeable batteries into a fire!
- Do not use any defective or deformed rechargeable batteries!
- Do not open the rechargeable batteries!
- Do not touch the contacts of the rechargeable batteries and do not short-circuit them!

- A slightly acidic, combustible liquid may leak from defective li-ion rechargeable batteries! If any battery liquid is leaking and comes in contact with the skin, immediately rinse with a copious amount of water. If any battery liquid gets into your eyes, rinse with clean water and immediately consult a doctor for medical treatment!
- Remove the rechargeable batteries from the machine before carrying out any setting, retooling, maintenance or cleaning tasks.
- Ensure that the machine is switched off when you push in the rechargeable battery.
- Please remove the rechargeable battery from the machine if the machine is put down, transported or stored unattended.

Instructions on the use of personal protective equipment:

- Always wear ear protectors during work.
- Always wear protective goggles during work.
- Always where a dust mark during work.

Instructions on operation:

- Keep your hands away from the cutting range and the tool. Hold the supplementary handle and the motor casing with your hands.
- Never support the workpiece in your hand or over your leg. Secure the workpiece against a sturdy support, e.g. by means of clamps.
- Never use damaged or incorrect tool washers or screws.
- Hold the machine with both hands and bring your arms into a position where you are able to resist the backlash forces.
- Examine the workpiece for foreign objects. Do not saw or mill into steel parts.
- Always mill in counter direction.
- Before starting up, check the tight seat of the milling cutter and its correct running.
- Only use milling cutters approved for manual feed.
 Only use the tool included in the delivery or a corresponding spare part.
- Do not reach under the protective ring.
- Only swing the protective ring upwards when flush milling (see Chapter 6.4).
- Remove the battery before changing tools, making adjustments, performing maintenance, or troubleshooting (this includes removing jammed splinters).

- Before switching on, make sure that the milling cutter is tightly secured.
- Only switch on the machine once its rests on the flat surface to be processed. After processing, switch off the machine and only lift it off the workpiece once the tool has coasted to a standstill.
- Only begin milling the workpiece when the milling cutter has achieved its full speed.
- Examine the workpiece for foreign objects. Do not mill into metal parts, e.g. nails.
- Only start working if the base plate can be securely rested on the workpiece.
- Hand-quided milling is not permitted.
- The wood dust arising during milling impairs the necessary view and is partly injurious to health. If the machine is used for longer periods, it must therefore be connected to a chip extractor if the work is not carried out outdoors or in a sufficiently ventilated room.

Instructions on service and maintenance:

- Regularly cleaning the machine, especially the adjusting devices and guides, constitutes an important safety factor.
- Only original MAFELL spare parts and accessories may be used. Otherwise the manufacturer will not accept any warranty claims and cannot be held liable.

4 Layout

4.1 Depicted components (see Fig. 1, 2)

- (1) Base plate
- (2) Protective ring
- (3) Locking button rotatable rechargeable battery compartment
- (4) Handle
- (5) Grip area
- (6) Rechargeable battery
- (7) Switch trigger
- (8) Cutter head
- (9) Indexable cutting inserts
- (10) Spindle lock button
- (11) Wing screw

5 Setting / adjustment

5.1 Charging the rechargeable battery

Check whether the rated voltage of the rechargeable battery agrees with the information specified on the machine.

Rechargeable battery and charger are matched to each other. Only use original Mafell / CAS rechargeable batteries and chargers.

Before using a new machine, first of all charge the rechargeable battery.



The charging operation is described in the instructions supplied with the charger.

The rechargeable battery is equipped with a temperature monitoring system. This guarantees that the rechargeable battery is only charged in the temperature range between 0°C and 50°C. This achieves a long service life for the rechargeable battery.

A considerably shortened operating time per charging procedure indicates that the rechargeable battery is spent and needs to be replaced.



Danger Explosion hazard

Protect the rechargeable battery from heat, fire and moisture.

Do not place the rechargeable battery onto heating appliances and do not expose the rechargeable battery to strong solar radiation for a longer period of time. Temperatures above 50°C are detrimental to the rechargeable battery. Allow a heated rechargeable battery to cool down before charging it.

The optimum storage temperature ranges between 10°C and 30°C.



Do not open the rechargeable battery and protect it from impacts. Keep the rechargeable battery in a dry and frost-proof place.



Danger

Cover the rechargeable battery's contacts if it is stored outside the charger. There is a fire and explosion hazard in case of a short circuit caused by metallic bridging.

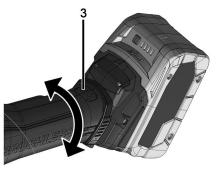


Follow the instructions for the protection of the environment.

5.2 Rotatable rechargeable battery

The rear part of the machine can be rotated by 270° in three stages (see Fig. 3). This allows the machine to be adapted to the working conditions. Only work when the tool is locked in position.

- Press the locking button 3 to start rotating the rear part of the machine.
- Release the locking button 3 during the rotation.
 Make sure that the locking mechanism engages with an audible click.



MAF02393/a

Fig. 3

5.3 Battery charge level and signal display

Press the button on the battery to query the charge level of the rechargeable battery. The charge level is indicated by LED lights.

If the battery is almost empty, an LED light flashes. Recharge the battery.

5.4 Fitting the rechargeable battery

Before inserting, check whether the rated voltage of the rechargeable battery agrees with the information specified on the machine.



Danger

There is an explosion hazard if the rechargeable battery is replaced incorrectly. Only replace the rechargeable battery with the same or equivalent type.

Inserting: Slide the charged rechargeable battery into the battery guide below the handle until it perceptibly engages.



Before using the machine, convince yourself that the rechargeable batteries are firmly seated in the machine.

5.5 Removing the rechargeable battery

Press the battery release button 14 and pull the battery 6 out of the battery guide (see Fig. 4).

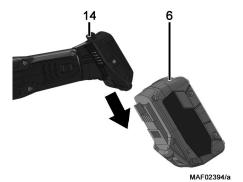


Fig. 4



Do not use force to do so.

5.6 Chip extraction



Danger

Substances that are harmful to health must be taken up with an M-suction device.

Connect the machine to a suitable external dust extractor during all work generating a considerable amount of dust. The air velocity must be at least 20 m/s $(65.6\ ft/sec.)$.

The internal diameter of hose connector is 35 mm (1 3/8 in.).

5.7 Changing the cutter



Danger

Unplug the rechargeable battery for all service work.

So as to guarantee its function, the machine is harmonised with the milling cutter included in the delivery, therefore only a corresponding spare part can be used.

- Press and hold the spindle lock button 10.
- Place the supplied hex nut driver onto the milling head 8 and turn the milling head counterclockwise until it is loosened and can be removed.
- Replace the cutter and tighten it again (13 Nm). Ensure there are no chips on the clamping surfaces.

Deresinification is carried out by soaking the cutters for 24 hours in paraffin or commercially available resin remover

5.8 Changing the indexable cutting insert



Danger

Unplug the rechargeable battery for all service work.



Danger

Indexable cutting inserts are cutting tools and have sharp corners and sharp edges. Handle these indexable cutting inserts with care to prevent injuries and damage to the inserts.

The milling head is equipped with 4 HM carbide indexable cutting inserts. When the cutting edges become blunt, you can turn the indexable cutting insert up to three times. After that, new original indexable cutting inserts must be fitted!

Follow the procedure below:

- Unscrew the countersunk screws using the supplied SW4 Allen key.
- Clean all parts and the cutter chambers of the milling head.
- · Turn or replace the indexable cutting inserts.
- Fasten the indexable cutting inserts with the countersunk screws and tighten them using the SW4 Allen key (4 Nm).

The parts have been inserted correctly if the rear of a cutter edge is resting against the carrier body, and the countersunk screw can be screwed in that far that the surface of the countersunk screw is located below or on the same level as the surface of the indexable cutting insert. The radial blade protrusion of max. 1.1 mm is thus guaranteed.

6 Operation

6.1 General

- Personnel entrusted to work with the machine must be made aware of these operating instructions, calling particular attention to the chapter "Safety instructions".
- Ensure that the cutter is fastened correctly.

6.2 Switching on and off

- Switching on: Slide the switch lock in the direction of the arrow and press the switch button 7 (see Fig. 5)
- · Switching off: Release switch button 7.



MAF02399/b

Fig. 5

As this is a switch without locking device, the machine will only run while this switch button is pressed.

The built-in automatic brake limits the working tool's slow-down time to approx. 1-2 s.

The machine is equipped with a restart protection. In case of overload, you must first turn off the machine and then turn it back on

6.3 Work instructions

- With the protective ring 2 folded down, up to 10 mm high material projections can be milled flat.
- Hold the face milling cutter with both hands at the handle and the motor casing.
- Place the base plate of the machine securely on the flat area of the workpiece.
- · Switch on the machine.
- Switch off the machine before removing one of your hands from the machine or before lifting the machine.



Danger

Before putting the machine down, switch off the engine and wait until the working tool has come to a standstill.

6.4 Flush milling

The flush milling function is used to trim excess material flush with a workpiece edge.

Follow the procedure below:

- Loosen the wing screw 11 and swing the protective ring 2 upwards using the gripping surface 12 (Fig. 6).
- Retighten the wing screw to secure the protective ring in the open position.

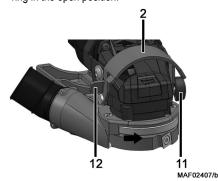


Fig. 6

 After completing the work, return the protective ring 2 to its starting position and secure it with the wing screw 11 (Fig. 7).

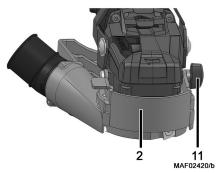


Fig. 7

7 Service and maintenance



Danger

Unplug the rechargeable battery for all service work.

MAFELL machines are designed to be low in maintenance.

The ball bearings used are greased for life. When the machine has been in operation for a longer period of time, we recommend to hand the machine in at an authorised MAFELL customer service shop for inspection.

Only use our special grease, order No. 049040 (1 kg tin) for all greasing points.

7.1 Machine

The machine must be regularly cleaned off deposited dust. The ventilation openings on the motor should be cleaned with a vacuum cleaner.

7.2 Cutter

The cutters used on the machine must be freed from resin regularly as clean tools improve the cutting quality.

For cleaning, only acid-free but not highly alkaline cleaning agents may be used.

Deresinification is carried out by soaking the cutters for 24 hours in paraffin or commercially available resin remover.

7.3 Storage

If the machine is out of service for a lengthy period of time, it should be thoroughly cleaned (see chapter 7.1). Spray bright metal parts with a rust inhibitor. Only store the machine in dry rooms and protected from the effects of the weather.

7.4 Transport

The included Li-ion rechargeable batteries are subject to the requirements of dangerous goods legislation. The rechargeable batteries can be transported by the user on the road without any further requirements.

For the dispatch by third parties (e.g.: air transport or forwarding agent), special requirements for packaging and labelling must be observed. In this case, a dangerous goods expert must be consulted when preparing the package.

Only dispatch rechargeable batteries if their housing is undamaged. Tape open contacts and pack the rechargeable battery so that it does not move in the packaging.

Please also observe any further national regulations.

7.5 Disposal of rechargeable batteries/batteries



Electrical tools, rechargeable batteries, accessories and packaging should be recycled in an environmentally friendly manner.

Do not dispose of electrical tools together with domestic waste!

For EU countries only:



According to the European Directive 2002/96/EC, power tools that are no longer serviceable, and according to the European Directive 2006/66/EC, defective or used rechargeable batteries/batteries must be collected separately and recycled in an environmentally sound manner.

Return unusable rechargeable batteries/batteries directly to:

Germany

Stiftung GRS Batterien Heidenkampsweg 44 20097 Hamburg Germany Rechargeable batteries/batteries:



Please comply with the information in Section "Transport", page 25.

Subject to changes.

8 Troubleshooting



Danger

Determining the causes for existing defects and eliminating these always requires increased attention and caution. Unplug the rechargeable battery beforehand!

Some of the most frequent defects and their causes are listed in the following chart. In case of other defects, please contact your dealer or the MAFELL customer service directly.

Defect	Cause	Elimination
Machine cannot be switched on.	Discharge the rechargeable battery.	Charge the rechargeable battery.
	Rechargeable battery not engaged in end position.	Insert the rechargeable battery correctly and ensure it is properly seated.
The electronic signal indicator lights up permanently.	Rechargeable battery is almost empty. The electronic system protects the rechargeable battery from deep discharge.	To check its state of charge, press the button on the rechargeable battery. If only one LED is on, recharge the rechargeable battery.
	Temperature is too high.	Allow the machine and the rechargeable battery to cool down.
	The restart protection prevents the machine from starting.	Switch the machine off and on again. If the battery is inserted while the machine is switched on, the machine will not start.
The electronic signal indicator lights up permanently.	Overloading of the machine during operation. Performance may be reduced.	Reduce the working pressure.
The machine switches off at a sudden increase in load.	With a sudden increase in load, the required current also rises sharply. This rise in current, which occurs when there is a sudden blockage or backlash, is measured and then leads to the machine being switched off.	Switch the machine off and on again. You can continue working normally. Try to avoid further blockages.

Defect	Cause	Elimination	
Sudden smoke emission from the motor casing	Overload of the machine's electronic system	Interrupt the power supply by removing the battery pack. The smoke emission stops. Do not insert a rechargeable battery! Avoid inhaling the smoke!	
Machine stops.	When the machine is overloaded, the restart protection is triggered.	Switch machine off and on again	
Milling cutter jams as the machine is advanced.	Blunt milling cutter	Switch off the machine immediately. Remove the machine from the workpiece. Replace the indexable cutting inserts.	
Burn marks on the milled surfaces.	The milling cutter is unsuitable for the operation or blunt.	Switch off the machine immediately. Remove the machine from the workpiece. Replace the indexable cutting inserts.	
Chip ejection blocked	Wood is too damp	Clean chip ejection Use dry wood	
	Extended milling without extraction	Connect machine to an external extraction system	

9 Optional accessories

-	Reversible scoring knives for milling head	Order No. 034907
-	Rechargeable battery PowerTank 18 M 72 LiHD	Order No. 094500
-	Rechargeable battery PowerTank 18 M 72 LiHDX	Order No. 094523
-	Rechargeable battery PowerTank 18 M 99 LiHD	Order No. 094503
-	Rechargeable battery PowerTank 18 M 144 LiHD	Order No. 094498
-	Rechargeable battery PowerTank 18 M 144 LiHDX	Order No. 094520

10 Exploded drawing and spare parts list

The corresponding information in respect of spare parts can be found on our homepage: www.mafell.com