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MAF02286/a

WARNING

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

Veillez 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 indicaciones de 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.**

WARNING

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.**

ADVARSEL

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

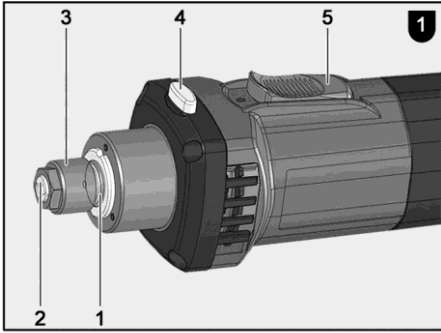
Przeczytać wszystkie przepisy bezpieczeństwa i wskazówki. Zaniedbanie przestrzegania przepisów bezpieczeństwa i wskazówek może prowadzić do porażenia prądem, pożaru i/lub ciężkich zranień. **Zachować wszystkie przepisy bezpieczeństwa i wskazówki na przyszłość.**

UPOZORNĚNÍ

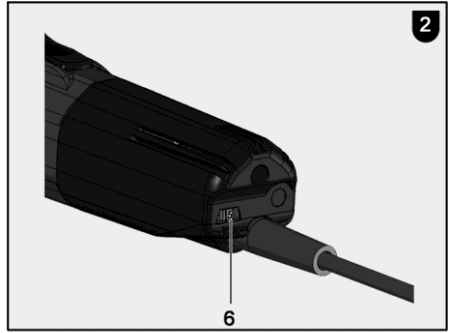
Přečtěte si všechna bezpečnostní upozornění a pokyny. Zanedbání bezpečnostních upozornění a pokynů může způsobit zásah elektrickým proudem, požár a/nebo vážná zranění. **Všechna bezpečnostní upozornění a pokyny si ponechejte pro pozdější použití.**

OPOZORILO

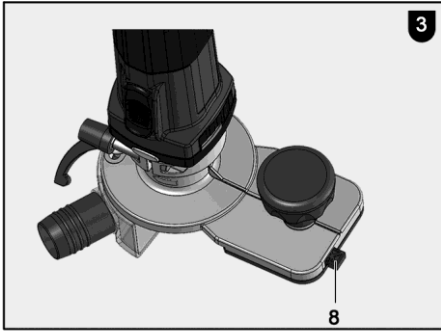
Preberite vsa varnostna opozorila in napotke. Neupoštevanje varnostnih opozoril in napotkov lahko povzroči udar električnega toka, požar in/ali hude telesne poškodbe. **Vsa varnostna opozorila in napotke shranite za prihodnjo uporabo.**



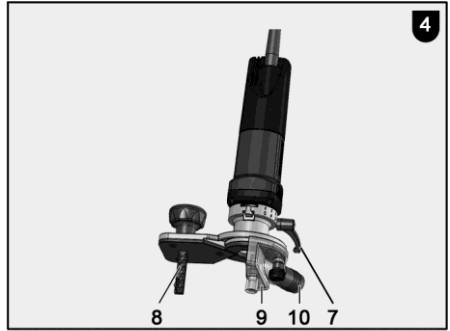
MAF02165/a



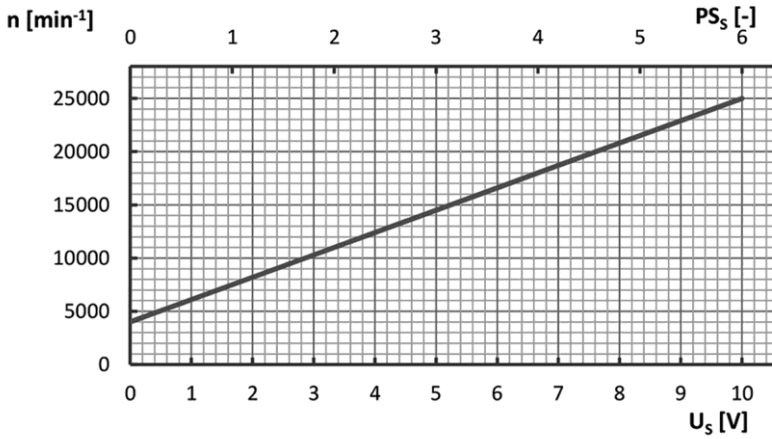
MAF02287/a



MAF02288/a



MAF02289/a



MAF02195/a

	KF 1000
1	4.000 min^{-1}
2	7.500 min^{-1}
3	12.000 min^{-1}
4	16.000 min^{-1}
5	21.000 min^{-1}
6	25.000 min^{-1}

D - EG Konformitätserklärung

Wir bescheinigen hiermit, dass die Maschine KF 1000 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 KF 1000 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 KF 1000 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 KF 1000 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 KF 1000 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 KF 1000 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 KF 1000 vastaa mainittujen EU-direktiivien vaatimuksia. Sen suunnittelussa ja valmistuksessa on sovellettu luettelossa ilmoitettuja standardeja. Teknisten asiakirjojen laatimiseen valtuutettu henkilö: Mafell AG

S - EG Konformitetsförklaring

Vi intygar härmed att maskinen KF 1000 uppfyller angivna EU direktiv. De angivna normerna användes vid konstruktion och tillverkning. Befullmäktigad för sammanställningen av den tekniska dokumentationen: Mafell AG

DK - EU overensstemmelseserklæring

Vi attesterer hermed, at maskinen KF 1000 opfylder de angivene EU-direktiver. Konstruktion og bygning er udført iht. de angivene standarder. Person, der er befuldmægtiget til at sammenstille det tekniske materiale: Mafell AG

RUS - Сертификат соответствия ЕС

Настоящим подтверждаем, что машина KF 1000 отвечает требованиям указанных директив ЕС. При проектировании и изготовлении применялись перечисленные нормы. Уполномоченный представитель по составлению технической документации: Mafell AG

PL - Deklaracja zgodności UE

Niniejszym potwierdzamy, że maszyna KF 1000 spełnia wymagania wyszczególnionych dyrektyw UE. W trakcie konstrukcji urządzenia zastosowano przedstawione normy. Pełnomocnik odpowiedzialny za zestawienie dokumentacji technicznej: Mafell AG

CZ - PROHLÁŠENÍ O SHODĚ

Tímto prohlašujeme, že stroj KF 1000 splňuje pokyny uvedených směrnic EU. Při plánování a sestavení byly využity uvedené normy. Za sestavení technických podkladů zodpovídá: Mafell AG

SLO - ES izjava o skladnosti

S tem izjavljamo, da stroj KF 1000 ustreza navedenim direktivam EU. Pri konstrukciji in izdelavi su uporabljeni našteti standardi. Za sestavo tehnične dokumentacije je pooblaščen o podjetje: Mafell AG



2006/42/EG
2014/30/EU
2011/65/EU

EN 60745-1, EN 60745-2-17, EN 55014-1, EN 61000-3,
EN 12100

KF 1000

Art.-Nr. 91C501, 91C520, 91C521

Mafell AG

D - 78727 Oberdorf, den 11.02.2020

Dipl.-Ing. Matthias Krauss
Vorstandsvorsitzender / CEO

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

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1 Signs and symbols



This symbol appears at places where you will find instructions for your own 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

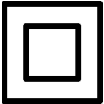
in respect of machines with item number 91C501, 91C520, 91C521

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

2.2 Machine identification

All details required for machine identification are available on the attached rating plate.



Protection class II



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 electric tools together with household waste material!

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.



To reduce the risk of injury, please read the operating instructions.

2.3 Technical data

Universal motor, radio and TV interference suppressed	230 V~, 50 Hz
Power input (nominal load)	1000 W
Current at nominal load	4.6 A
Idling speed	4,000 - 25,000 rpm
Tool holding fixture with collet \varnothing	8 mm (0 5/16 in.)
Tool shank maximum	8 mm (0 5/16 in.)
Tool shank minimum	3 mm (0 1/8 in.)
Milling cutter \varnothing , maximum	30 mm (1 3/16)
Weight without mains cable	2.1 kg (4.63 lbs)
Length of connecting cable	4 m (13 1/8 ft.)
Dimensions (W x L x H)	103 x 226 x 328 mm (4 1/16 x 8 57/64 x 12 29/32)

2.4 Emissions

The values stated are emission levels. Although there is a correlation between emission and imission level, it cannot be reliably derived from this whether additional precautions are necessary. Factors influencing the current imission level existing at the workplace comprise the duration of exposure, the room characteristic, other sources of noise, etc. such as e.g. the number of machines and other adjacent machining operations. In addition, the permissible imission level may differ from country to country. This information is nevertheless suitable for providing the machine user with an improved assessment of the hazard and risk.

2.4.1 Noise emission specifications

Noise emission values determined according to DIN EN ISO 3744:

Sound pressure level	$L_{PA} = 71$ dB (A)
Uncertainty	$K_{PA} = 3$ dB (A)
Sound power level	$L_{PA} = 82$ dB (A)
Uncertainty	$K_{PA} = 3$ dB (A)

The noise measurement was done without tool at idling speed.

2.5 Scope of supply

Edge cutter KF1000 complete with:

- 1 milling table, complete
- 1 face-milling cutter \varnothing 19 mm
- 1 collet \varnothing 8 mm
- 1 open-ended spanner AF 17
- 1 operating manual
- 1 folder "Safety Instructions"

2.6 Use according to intended purpose

The KF1000 is exclusively suitable for flush milling and profile milling of wood, plastics and similar materials in conjunction with the complete milling table included in the supply.

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

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

Please take into account the milling motor capacity at maximum tool diameter and anticipated machining depth.

Keep power tools away from rain or moisture. The penetration of water into a power tool increases the risk of electric shock.

The appliance is not designed for non-stop industrial operation. The maximum speed can be referenced in chapter 2.3 Technical data.

2.7 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 will always remain.

- Breakage of the tools and risk of the tools or parts of them being hurled away.
- Touching live parts with the housing open and the mains plug not removed.
- Hearing can be impaired when working for long periods without ear protectors.
- Emission of hazardous or potentially explosive dusts (all types) during longer lasting operation without extraction. Please note the safety data sheet of the material to be machined.

3 Safety instructions



Danger

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

General instructions:

- Children and adolescents must not operate this machine. This rule does not apply to young persons receiving training and being supervised by an expert.
- 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.
- Damaged cables or plugs must be immediately replaced. Replacement may only be carried out by Mafell or an authorised MAFELL service workshop in order to avoid safety hazards.
- Avoid sharp bends in the cable. Do not wind the cable around the power tool especially when transporting and storing the power tool.

Machine-specific safety instructions:

- **Only hold the power tool by the isolated handles, as the milling tool could encounter and cut into its own connecting cable.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Only operate the machine with a correctly fitted milling table and extraction hood.
- Only use milling tools approved for at least 25,000 rpm according to EN 847.

- Ensure that the milling tool is firmly seated and check that it is running smoothly.

Do not use:

- Damaged tools or tools that have changed their shape.
- Blunt tools due to the excessive motor load.
- Tools that are not suitable for the power tool speed during idling.

Instructions on the use of personal protective equipment:

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

Instructions on operation:

- Do not reach with your hands into the danger zone of the tool.
- Examine the workpiece for foreign objects.
- Never support the workpiece in your hand or over your leg. Secure the workpiece against a sturdy support.

Instructions on service and maintenance:

- Regular cleaning of the power tool is 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 Setting / Adjustment

4.1 Mains connection

Prior to initial operation, make sure that the mains voltage agrees with the operating voltage stated on the machine's rating plate.

4.2 Selection of tools

Only use the collets/adaptor sleeves and suitable milling cutters listed in chapter 8 "Optional accessories".

4.3 Tool change



Danger

Pull the power plug during all service work.



Wear protective gloves during a **tool change**. The insertion tool can get very hot during longer operation and/or the insertion tool's cutting edges are sharp.

The spindle 1 (Fig. 1) of the milling motor is equipped with a precision collet 2 (Fig. 1) to hold the tools. Tightening and releasing the unit nut 3 (Fig. 1) is made easy with a spindle lock 4.

Proceed as follows for the tool change:

- Lock the spindle 1 (Fig. 1) to unclamp the tool by pressing the locking button 4 (Fig. 1).
- Detach union nut 3 with an open-ended spanner AF 17.
- Pull off the tool to the front.
- Push the new tool into the tool holding fixture up to the limit stop.

- Check the tool's seat.
- Spindle 1 is locked when the tool is clamped.
- Tighten union nut 3 with the open-ended spanner

5 Operation

5.1 Initial operation

Personnel entrusted to work with the power tool must be made aware of the operating manual, calling particular attention to the chapter "Safety instructions".

Mount the milling cutter and the milling table before you put the machine into operation.

5.2 Switching on and off

- **Switching on:** Push the switch 5 (Fig. 1) forward until it engages.
- **Switching off:** Push onto the rear end of the switch. The switch jumps into off position.

The built-in electronic system provides for jerk-free acceleration when the machine is switched on and under load readjusts the speed to the fixed setting.

In addition, this electronic system reduces the motor output in case of an overload, i.e. the spindle stops. Switch the machine off then. Remove the cause (reduce feed speed, use sharp tool, etc.) and continue to work.

With the setting wheel 6 (Fig. 2) you can adjust the speed continuously. Appropriate speed values at the different levels can be referenced in the table on page 4.

5.3 Setting the digging depth

The milling depth can be adjusted continuously by turning the motor unit in relation to the milling table.

- Release the clamping lever 7 (Fig. 4).
- Turn the motor unit to adjust the milling depth
- Clockwise turning = increase milling depth
- Anti-clockwise turning = decrease milling depth
- Re-tighten the tension lever



The scale on the milling attachment can be used for fine adjustment.

5.4 Additional limit stop



The additional limit stop 8 (Fig. 3) can be used for machining corners.

- Pull the additional limit stop 8 (Fig. 3) from its bracket and insert it in the base plate. (Fig. 4)

5.5 Collets



Danger

To protect the thread, only screw the union nut 3 (Fig. 1) lightly onto the spindle 1, but do not tighten when no tool is inserted. Collet 2 could get pressed together too much and be damaged in the process.

- Always use the correct tool size for the respective collet.
- Oil the collet a little at the beginning and after longer use.
- Unscrew the union nut 3 with the collet 2.
- Tilt out the collet 2 to the side.
- If the collet is jammed, loosen it with a rubber hammer by a light blow from behind.

5.6 Extraction hood

Always use the extraction hood 9 while working with the tool (Fig. 4).

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 10 (Fig. 4) is 29 mm (1 9/64 in.).

The extraction hood is equipped with a thrust ring brake for milling cutters with thrust ring.

On milling cutters without thrust ring, the brake can be removed by pulling the spring-loaded brake pin upwards and off.

To reactivate the brake, press the spring-loaded brake pin into the bracket provided until it engages.

6 Service and maintenance



Danger

Pull the power plug during all service work.

MAFELL machines are designed to be low in maintenance.

Replace the carbon brushes at the latest after 125 - 150 operating hours. The spare parts can be referenced in chapter 9.

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.

6.1 Storage

If the power tool is not used for a longer period of time, it has to be carefully cleaned. Spray bright metal parts with a rust inhibitor.

7 Troubleshooting



Danger

Determining the causes for existing defects and eliminating these always requires increased attention and caution. Pull the mains plug 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	No mains voltage	Check power supply
	Mains fuse defective	Replace fuse
	Carbon brushes worn	Take the machine to a MAFELL customer service shop
Machine stops while working	Mains failure	Check mains back-up fuses
	Overload	Reduce feed speed Use sharp tool

8 Optional accessories

- Collet Ø 3 mm	Order No. 093731
- Collet Ø 4 mm	Order No. 093732
- Collet Ø 6 mm	Order No. 093733
- Collet Ø 8 mm	Order No. 093734
- Collet Ø 1/8" (3.175 mm)	Order No. 093735
- Collet Ø 1/4" (6.35 mm)	Order No. 093736
- Collet Ø 3 mm + union nut	Order No. 093737
- Collet Ø 1/8" (3.175 mm) + union nut	Order No. 093738
- Union nut	Order No. 093729
- Reducing sleeve ø3 mm	Order No. 207944
- Reducing sleeve ø1/8"(3.175)	Order No. 207945
- Reducing sleeve ø4 mm	Order No. 207949
- Reducing sleeve ø6 mm	Order No. 207946
- Collet adapter incl. union nut	Order No. 207943
- Face-milling cutter ø 19 mm	Order No. 090282

9 Exploded drawing and spare parts list

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