

# KSP 40 Flexistem / KSS 300

# mafi

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MAF01431/a



MAF01288/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

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 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

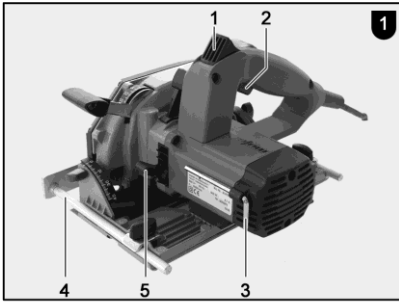
Lue kaikki turvaohjeet ja käyttöohjeet. Laiminlyönti turvaohjeiden ja käyttöohjeiden noudattamisessa voi aiheuttaa sähköiskun, tulipalon ja/tai vakavia vammoja. **Säilytä kaikki turvaohjeet ja käyttöohjeet tulevaisuuden varalle.**

## WARNING

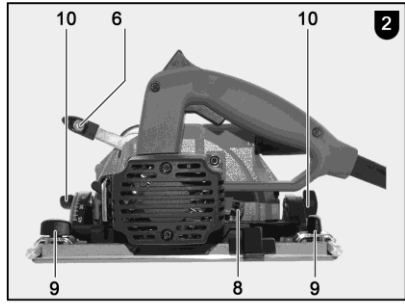
Läs alla säkerhetsanvisningar och anvisningar. Underlåtenhet att följa säkerhetsanvisningar och anvisningar kan orsaka elstöt, brand och/eller allvariga personskador. **Behåll alla säkerhetsanvisningar och anvisning för framtida användning.**

## ADVARSEL

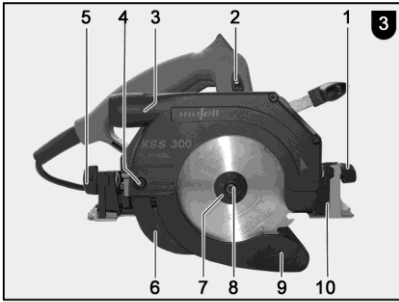
Læs alle sikkerhedshenvisninger og instruktioner. En manglende overholdelse af sikkerhedshenvisningerne og instruktionerne kan føre til elektrisk stød, brand og/eller alvorlige kvæstelser. **Opbevar alle sikkerhedshenvisninger og instruktioner til fremtidig brug.**



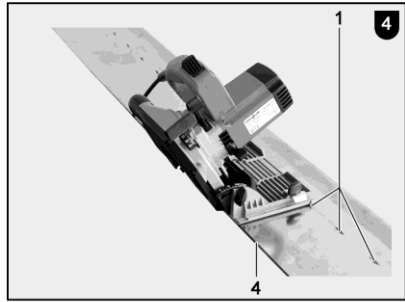
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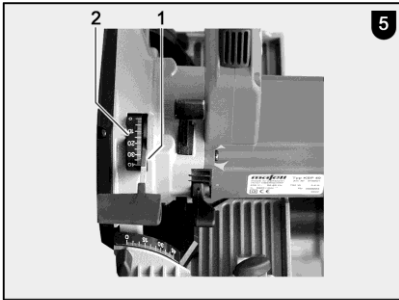
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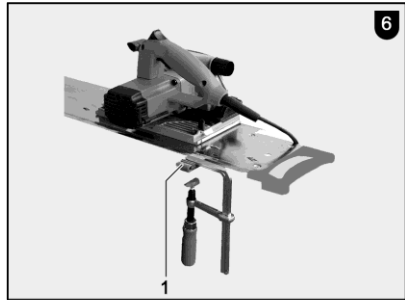
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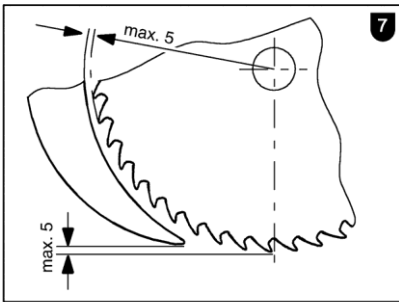
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#### D - EG Konformitätserklärung

Wir bescheinigen hiermit, dass die Maschine KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM 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 KSP 40 FLEXISTEM opfylder de angivene EU-direktiver. Konstruktion og bygning er udført iht. de angivene standarder.

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



2006/42/EG

2014/30/EU

2011/65/EG

**KSP 40 FLEXISTEM**

EN 60745, EN 55014-1, EN 55014-2, EN 61000-3, EN 12100 T1, EN 12100 T2, EN 1037, EN 847-1

Art.-Nr. 915801, 915820, 915821, 915822, 915825

**Mafell AG**

D - 78727 Oberndorf, den 06.10.2016

Krauss

i. V. Dr. Lauckner

#### D - EG Konformitätserklärung

Wir bescheinigen hiermit, dass die Maschine KSS 300 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 KSS 300 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 KSS 300 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 KSS 300 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 KSS 300 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 KSS 300 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 KSS 300 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 hämed att maskinen KSS 300 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 KSS 300 opfylder de angivene EU-direktiver. Konstruktion og bygning er udført iht. de angivene standarder.

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



2006/42/EG

2014/30/EU

2011/65/EU

KSS 300

EN 60745, EN 55014-1, EN 55014-2, EN 61000-3, EN 12100, EN 1037, EN 847-1

Art.-Nr. 916701, 916702, 916720, 916721, 916722, 916725, 916730, 916731, 916732, 916735

Mafell AG

D - 78727 Oberndorf, den 29.06.2018

Dipl.-Ing. Matthias Krauss  
Vorstandsvorsitzender / CEO

i. V. Dr. Helmut Lauckner  
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

KSP 40 Flexistem: Art.-No. 915801, 915820, 915821, 915822, 915825

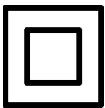
KSS 300: Art.-No. 916701, 916702, 916720, 916721, 916722, 916725, 916730, 916731, 916732, 916733, 916735

### 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

### KSP 40 Flexistem

Universal motor, radio and TV interference suppressed	230 V~, 50 Hz	110 V~, 50 Hz
Power input (nominal load)	900 W	1000 W
Current at nominal load	4,1 A	9,1 A
Saw blade speed during idling	8800 rpm	8800 rpm
Saw blade speed at normal load	6500 rpm	5690 rpm
Cutting depth 0°/30°/45°	42/36/29 mm ( 1 21/32, 1 27/64, 1 9/64 in. )	
Swivelling saw unit	0 – 45°	
Saw blade diameter max/min	120/112 mm ( 4 47/64, 4 13/32 in. )	
Saw blade body thickness	1.2 mm ( 3/64 in. )	
Tool cutting width	1,8 mm ( 5/64 in. )	
Saw blade mounting hole	20 mm	
Hose connector diameter	28 mm ( 1 7/64 in. )	
Weight without mains cable, without parallel guide fence	2,2 kg ( 4.8 lbs )	
Dimensions (W x L x H)	181 x 306 x 199 mm ( 7 1/8 x 12 x 7 13/16 in. )	

### KSS 300

Universal motor, radio and TV interference suppressed	230 V~, 50 Hz	110 V~, 50 Hz
Power input (nominal load)	900 W	1000 W
Current at nominal load	4,1 A	9,1 A
Saw blade speed during idling	8800 rpm	
Saw blade speed at normal load	6500 rpm	5690 rpm
Cutting depth 0°/45°	42/29 mm ( 1 21/32, 1 9/64 in. )	
Tilting saw unit	0 – 45°	
Saw blade diameter max/min	120/112 mm ( 4 23/32, 4 13/32 in. )	
Largest thickness basic saw blade body	1.2 mm ( 3/64 in. )	
Tool cutting width	1.8 mm ( 5/64 in. )	
Saw blade mounting hole	20 mm	
Hose connector diameter	28 mm ( 1 7/64 in. )	
Weight without mains cable, without parallel guide fence	2.3 kg (5.07 lbs)	
Dimensions incl. guiding device (W x L x H)	200 x 550 x 200 mm ( 7 7/8 x 21 21/32 x 7 7/8 in. )	

### as cross-cutting system

Cutting depth 0°/45°	40/27 mm ( 1 9/16, 1 1/16 in. )
Cutting length at 12/40 mm ( ½ / 1 ½ in. ) workpiece thickness	337/292 mm ( 13 ¼, 11 ½ in. )
Weight with guiding device, without mains cable	3,0 kg (3.0 lbs)

## 2.4 Noise emission specifications

Noise emission values determined according to EN 60745-1 and EN 60745-2-5:

	<b>Sound power level</b>	<b>Workplace-related emission value</b>
Idling	102 dB (A)	91 dB (A)
Machining	103 dB (A)	92 dB (A)

The noise measurement was recorded using the saw blade included in the standard equipment.

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 source 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.

## 2.5 Vibration specifications

The typical hand-arm vibration is less than 2.5 m/s<sup>2</sup>.

## 2.6 Scope of supply

Portable circular saw KSP 40 Flexistem complete with:

1 carbide tipped circular saw blade Ø 120 mm, 24 teeth

1 riving knife/splitter (thickness 1.2 mm/3/64 in.)

1 hose connector

1 parallel stop

1 service tool in bracket on the machine

1 carrying case Max

1 operating manual

1 folder "Safety instructions"

2 clamping claws

1 FLEXI rail FX 140 for cutting length max. 140 cm ( 55 in. )

Cross-cutting system KSS 300 complete with:

1 carbide-tipped circular saw blade Ø 120 mm ( 4 ¾ in. ) , 40 teeth

1 riving knife / splitter (thickness 1.2 mm / 3/64 in.)

1 hose connector

1 parallel guide fence

1 service tool in bracket on the machine

1 carrying case max

1 operating manual

1 folder "Safety Instructions"

2 clamping claws on item No. 916702, 916730, 916731, 916732, 916735

1 FLEXI rail FX 140 for cutting length max. 140 cm ( 55 in. ) on item No. 916702, 916730, 916731, 916732, 916735



## 2.7 Safety devices



### **Danger**

These devices are required for the machine's safe operation and may not be removed or rendered inoperative.

The machine is equipped with the following safety devices:

- Upper stationary saw guard
- Lower retractable saw guard
- Large base plate
- Handles
- Riving knife / splitter
- Index mechanism and brake
- Hose connector

## 2.8 Use according to intended purpose

The KSP 40 Flexistem / KSS 300 is exclusively suited for longitudinal and cross cutting of solid wood.

Panel materials such as chip board, core board and medium density fibre board can also be processed. Use approved saw blades according to EN 847-1.

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.

## 2.9 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.

- Touching the saw blade in the vicinity of the starting aperture below the base plate.
- Touching the part of the saw blade that protrudes below the workpiece when cutting.
- Touching of turning parts from the side: saw blade, clamping flange and flange screw.
- Machine backlash if the blade gets stuck in the workpiece.
- Breakage of the saw blade and risk of the blade or pieces of the blade 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 harmful wood dusts during longer operation without extraction.
- Snapping open of the FLEXI rail if used improperly.

## 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 prescribed for the respective operating sequence and do not make any changes to the machine that could impair safety.
- When operating the machine outdoors, use of an earth-leakage circuit-breaker is recommended.
- Damaged cables or plugs must be immediately replaced.
- Avoid sharp bends in the cable. Especially when transporting and storing the machine, do not wind the cable around the machine.

**Do not use:**

- Cracked and misshapen saw blades.
- Saw blades made of high speed steel (HSS saw blades).
- Blunt saw blades as they impose an excessive load on the motor.
- Saw blades with a base body with a thickness greater than, or a cutting width (setting) less than, the thickness of the riving knife / splitter.
- Saw blades which are not suitable for the saw blade's idling speed.

**Instructions on the use of personal protective equipment:**

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

**Instructions on operation:**

- Do not reach with your hands into the sawing area and do not touch the saw blade. With your other hand, support the supplementary handle or the motor casing.
- Do not reach under the workpiece.
- Adapt the cutting depth to the workpiece thickness.
- Never support the workpiece in your hand or over your leg. Secure the workpiece against a sturdy support.
- Only hold the device by its isolated handle surfaces when carrying out work during which the cutting tool could hit hidden power cables or its own connection cable.
- Always use a limit stop or a straight edge guide for longitudinal cutting.
- Always use tools of the correct size and with matching mounting hole (e.g. star-shaped or round).
- Never use damaged or incorrect saw blade washers or screws.
- Hold the saw with both hands and bring your arms into a position where you are able to resist the backlash forces. Always keep to the side of the saw blade. Never bring the saw blade in line with your body.
- If the saw blade jams or sawing is interrupted for another reason, release the on/off switch and keep the saw steady in the workpiece until the saw blade stands completely still. Never try to remove

the saw from the workpiece or to pull it backwards while the saw blade is still moving or while a backlash could occur.

- If you would like to restart a saw that is stuck in the workpiece, centre the saw blade in the saw slit and check whether the saw teeth are stuck in the workpiece.
- Support large plates to reduce the risk of backlash caused by a jammed saw blade.
- Do not use any blunt or damaged saw blades.
- Before starting to saw, tighten the cutting depth and cutting angle adjustments.
- Be especially careful when making a "plunge cut" into a concealed area, e.g. into an existing wall.
- Prior to every use, check whether the lower saw guard is closing properly. Do not use the saw if the lower saw guard is not freely movable and does not close immediately. Never clamp or tie down the lower saw guard in an open position.
- Check the function of the spring for the lower saw guard. Have the device serviced if lower saw guard and spring do not work properly.
- Only manually open the lower saw guard for special cuts, such as "plunge and angle cuts". Open the lower saw guard using the retracting lever and release the lever as soon as the saw blade has penetrated the workpiece.
- Do not place the saw on the work bench or on the floor without the lower saw guard covering the saw blade.
- Use the saw blade matching the riving knife/splitter.
- Adjust the riving knife/splitter as described in the operating instructions.
- Always use the riving knife/splitter except for "plunge cuts".
- For the riving knife/splitter to function, it has to be located in the saw slit.
- Never operate the saw with bent riving knife/splitter.
- Examine the workpiece for foreign objects. Never attempt to cut into nails or other metal objects.

#### 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 Setting / Adjustment

### 4.1 Mains connection

Prior to commissioning make sure that the mains voltage complies with the operating voltage stated on the machine's rating plate.

### 4.2 Chip extraction

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 3 (Fig. 3) is 28 mm (1 7/64 in.).

### 4.3 Saw blade selection

Use a sharp tool to obtain a good cut quality and select a tool from the following list according to material and application:

#### For cuts along and across the grain in soft or hard wood:

- HM circular saw blade Ø 120 x 1.8 x 20 mm ( 4 ¾ x 5/64 in. x 20 mm ), 24 teeth

#### For cuts especially along the grain in soft or hard wood:

- HM circular saw blade Ø 120 x 1.8 x 20 mm ( 4 ¾ x 5/64 in. x 20 mm ), 12 teeth

#### For cuts especially across the grain in soft or hard wood:

- HM circular saw blade Ø 120 x 1.8 x 20 mm ( 4 ¾ x 5/64 in. x 20 mm ), 40 teeth

#### For cuts in laminate:

- HM circular saw blade Ø 120 x 1.8 x 20 mm ( 4 ¾ x 5/64 in x 20 mm ), 40 trapezoidal teeth

Order No. see special accessories.

## 4.4 Saw blade change



### Danger

Pull the power plug during all service work.

- Press the locking bolt 8 (Fig. 2).
- Using the Allen-key 3 (brackets Fig. 1), unfasten the flange screw 8 (Fig. 3) **counter clockwise**; remove the screw as well as the front clamping flange 7.
- Now you can remove the saw blade after opening the retractable saw guard 9.
- The clamping flanges must be free of adhering parts.
- Pay attention to the sense of rotation when inserting the saw blade.
- Afterwards, mount the clamping flange, attach the flange screw and tighten it by **clockwise** turning.
- In doing so, keep the locking bolt depressed.



Do not press the locking bolt 8 (Fig. 2) with the machine running! The machine may get damaged.

## 4.5 Riving knife/splitter



### Danger

Pull the power plug during all service work.

The riving knife / splitter 6 (Fig. 3) prevents the saw blade from jamming during longitudinal cutting. The correct distance to the saw blade is shown in (Fig. 8).

- For adjustment, unfasten the screw 4 (Fig. 3) with the Allen-key supplied with the saw 3 (Fig. 1).
- Adjust the riving knife/splitter by shifting it in its longitudinal slit. Afterwards retighten the screw.

## 5 Operation

### 5.1 Initial operation

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

## 5.2 Switching on and off

- **Switching on:** First press the switch-on lock 1 (Fig. 1) and then press the switch trigger 2.
- **Switching off:** To switch off, release the switch trigger.

## 5.3 Cutting depth adjustment

The cutting depth is continuously variable between 0 and 42 mm.

### Proceed as follows:

- Unfasten the clamping lever 5 (Fig. 1).
- Set the cutting depth with the plunge lever 6 (Fig. 2).
- The cutting depth can be read off the scale 2 (Fig. 5) on the cover. Zone 1 on the plunge lever with the red background serves as indicator for this purpose.
- Retighten the clamping lever.



Always set the cutting depth approx. 2 to 5 mm (5/64 to 13/64 in.) larger than the material thickness to be cut.

## 5.4 Setting for bevel cuts

For bevel cuts, the saw unit can be set to any angle between 0 and 45°.

- Unfasten the wing screws 10 (Fig. 2).
- Adjust the angle according to the scale on the segment for tilting.
- Afterwards, tighten the wing screws 10.

## 5.5 Plunge cuts



### Danger

Risk of backlash during plunge cuts! Prior to plunging, place the machine with the rear edge of its base plate against a limit stop fastened on the workpiece. Keep a firm hold on the machine handle during plunging and push the saw lightly forward!

- Release the clamping lever 5 (Fig. 1).
- Reset the plunge lever 6 (Fig. 2).
- Open the retractable saw guard with the lever 2 (Fig. 3), so that the machine can be placed onto the workpiece to be processed. The saw blade is now running freely above the material and can be aligned for tracing.
- Press the plunge lever 6 (Fig. 2) downwards, so that the saw blade plunges vertically into the workpiece. The plunging depth can be read from scale 2 (Fig. 5). The riving knife / splitter swings up and away when the blade enters the workpiece. As soon as the slit behind the saw blade is cleared during the forward motion of the machine, the riving knife reverts to its normal position.

## 5.6 Sawing with FLEXI rail



### Danger

The support rail is pretensioned and may snap open in an uncontrolled manner - risk of injury. It should therefore be securely held with both hands during opening and closing.

### Initial operation

Trim the splinter guard 4 (Fig. 4) before initial operation:

- Place the FLEXI rail on a flat support.
- Set the cutting depth to approx. 3 mm ( 1/8 in. ) and the angle scale to 0°.
- Turn on the machine and push it evenly in the direction of the cut.

The resulting cut edge on the splinter guard serves as tracing edge for straight cuts and bevel cuts.

- Place the FLEXI rail onto the workpiece. Knock against the workpiece and align it on the tracing.

So as to fix the FLEXI rail, tighten the two clamping claws 1 (Fig. 6) with the screw clamps.

## Operating method

- Set the cutting depth and cutting angle on the machine.
- Place the machine on the start of the FLEXI rail such that the guide elements 1 (Figure. 4) of the rail engage in the base plate groove.
- Turn on the machine and push it evenly in the direction of the cut.



Do not clean the FLEXI rail with solvents. Non-skid coating may get damaged.

## 5.7 Sawing shadow gaps

**The minimum shadow gap width is:**

- if used without parallel stop 13 mm (33/64 in.)
  - if used with parallel stop 14 mm (35/64 in.) (at cutting depth of 0 - 32 mm / 0 - 1 ¼ in.)
  - if used with parallel stop 18 mm (45/64 in.) (at cutting depth of 32 - 42 mm / 1 ¼ - 1 21/32 in.)
- Set the required cutting depth.
  - Retract the retractable saw guard with the lever 2 (Fig. 3) and set the machine onto the first fitted workpiece.
  - Switch on the machine and push the machine evenly in cutting direction, in addition using the extraction device.

## 5.8 Sawing with the parallel stop

When making parallel cuts, the parallel guide fence 4 (Fig. 1) serves to saw parallel to an already existing edge. The guide fence can be attached to the left or right of the machine. The cutting range on the right-hand side amounts to approx. 65 mm ( 2 9/16 in. ) and on the left-hand side to approx. 250 mm ( 9 27/32 in. ).

- Once you have unfastened the wing screws you can adjust the cutting width 9 (Fig. 2) by moving

the guide fence accordingly and afterwards retightening the wing screws.

Additionally, the parallel limit stop can also be used as double support to improve machine guidance by simply turning it around (guide face for the workpiece edge is pointing upwards). Now the machine can be guided along a lath fastened on the workpiece.

## 5.9 Sawing according to tracings

The base plate is equipped with a tracing edge 10 (Fig. 3) both for straight cuts and for bevel cuts. This tracing edge corresponds to the saw blade's inside. For bevel cuts, the tracing can be viewed through the opening on the left-hand side of the upper saw guard.

- Hold the machine by its handles and place the front part of its base plate onto the workpiece.
- Switch on the machine and evenly advance the machine in cutting direction.
- when the cut is completed, switch off the saw by releasing the switch trigger 2 (Fig. 1).

## 6 Service and maintenance



### Danger

Pull the power plug during 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.

### 6.1 Storage

If the machine 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, contact your dealer or the MAFELL customer service.

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
at 230 V~ Machine switches off automatically during idling or stops during the cutting process	Mains failure	Check mains-side pre-fuse
	Machine overloaded	Switch machine off and on again Reduce feed speed
at 230 V~ The speed decreased during cutting.	Excessive feed	Reduce feed
	Blunt saw blade	Sharpen or replace saw blade
at 110 / 120 V~ Machine stops while cutting is in process	Mains failure	Check mains back-up fuses
	Machine overloaded	Reduce feed speed
Saw blade jams as the machine is advanced	Feed rate too fast	Reduce feed speed
	Blunt saw blade	Release the switch immediately. Remove the machine from the workpiece and replace the saw blade
	Tension in the workpiece	
	Poor machine guidance	Use parallel guide fence
	Uneven workpiece surface	Straighten the surface
Burn marks on the cut surfaces	The saw blade used is unsuitable for the task or blunt	Replace saw blade
Chip ejection blocked	Wood is too damp	
	Extended operation without exhaustion	Connect to an external extraction, e.g. portable dust extractor

## 8 Optional accessories

- Saw blade carbide Ø 120 x 1.8 x 20 mm, 12 teeth (longitudinal cut) Order No. 092560
- Saw blade carbide Ø 120 x 1.8 x 20 mm, 24 teeth (longitudinal and cross cuts) Order No. 092558
- Saw blade carbide Ø 120 x 1.8 x 20 mm, 40 teeth (cross cut) Order No. 092559
- Saw blade carbide Ø 120 x 1.8 x 20 mm, 40 teeth (laminated) Order No. 092578
- FLEXI rail FX 140, cpl. Order No. 204372
- Accessories for FLEXI rail:
  - Screw clamp Order No. 093281
- Extraction device S 50 M Order No. 915901
- Extraction device S 25 M Order No. 919710
- Suction device S 25 L Order No. 919715
- Extraction device S 35 M Order No. 919701
- guiding device S Order No. 208169

## 9 Exploded drawing and spare parts list

The corresponding information in respect of spare parts can be found on our homepage: [www.mafell.com](http://www.mafell.com)