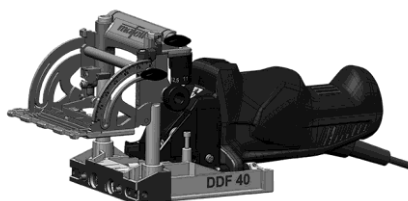


de	DuoDübler	Originalbetriebsanleitung	8
en	Duo Dowel Joiner	Translation of the original operating instructions	19
fr	Tourillonneuse portative double	Traduction de la notice d'emploi originale	29
it	Fissatore caviglie doppio	Traduzione delle istruzioni d'uso originali	40
nl	Duo plugmachine	Vertaling van de originele gebruiksaanwijzing	51
es	Espigadora doble	Traducción del manual de instrucciones original	62
fi	Kaksoisvaarnapora	Käännös alkuperäiskäyttöohjeesta	73
sv	DuoBorr	Översättning av originalbruksanvisningen	83
da	Duo Dyebor	Oversættelse af den originale betjeningsvejledning	93



MAF02166/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 elstöt, 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.**

D - EG Konformitätserklärung

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

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



2006/42/EG

2014/30/EU

2011/65/EU

DDF 40

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

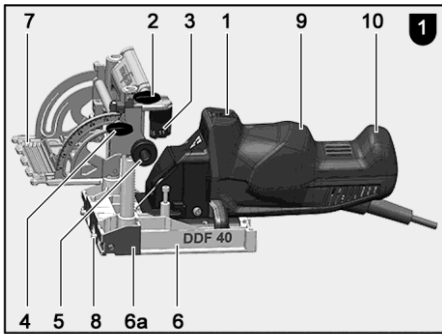
Art.-Nr.: 918601, 918602, 918620, 918621, 918622, 918625

Mafell AG

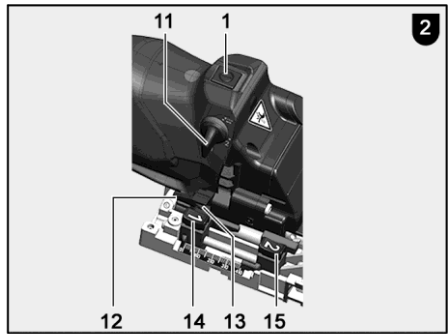
D - 78727 Oberndorf, den 02.05.2018

Dipl.-Ing. Matthias Krauss
Vorstandsvorsitzender / CEO

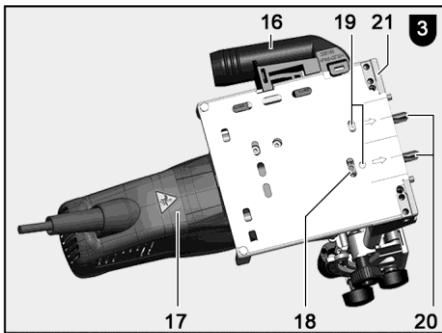
i. V. Dr. Helmut Lauckner
Leitung Entwicklung und Konstruktion



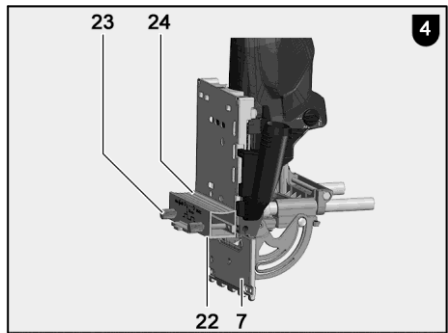
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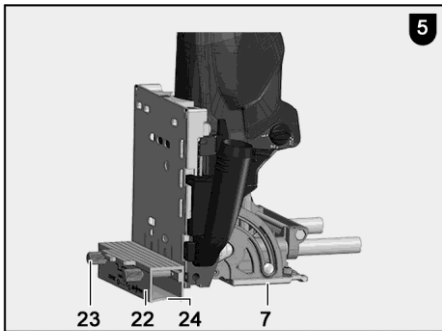
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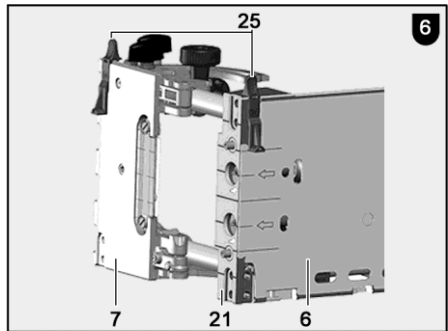
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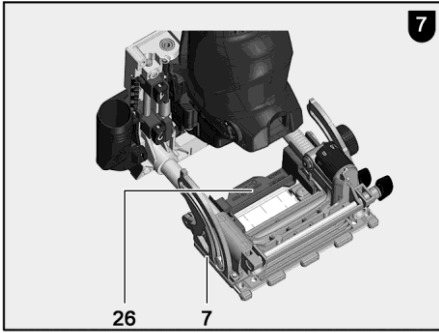
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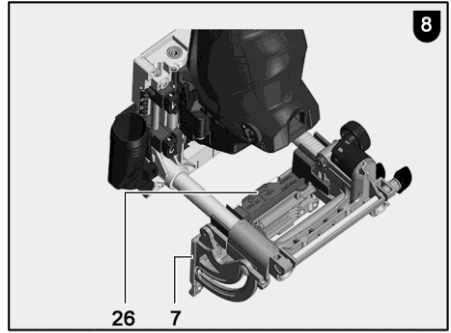
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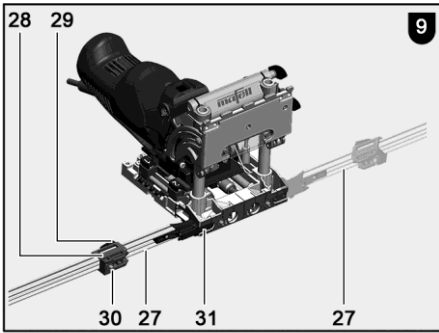
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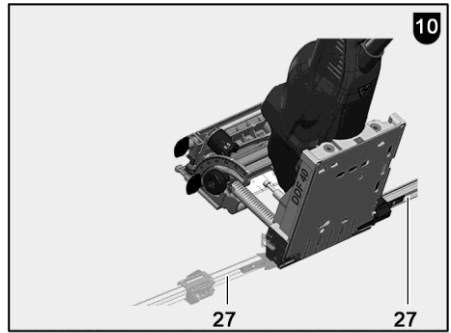
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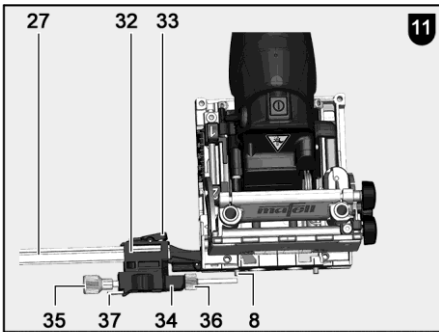
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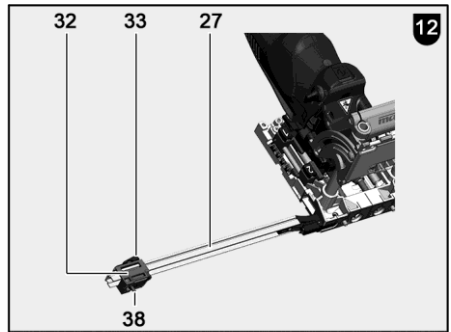
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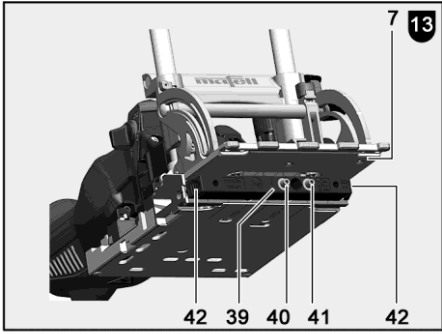
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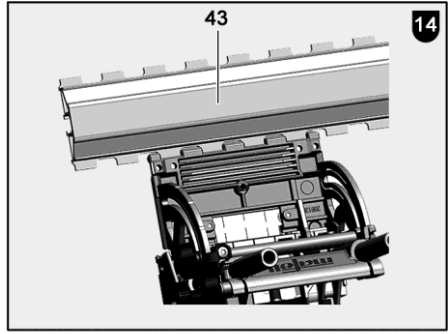
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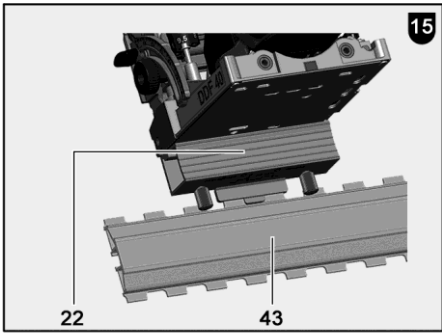
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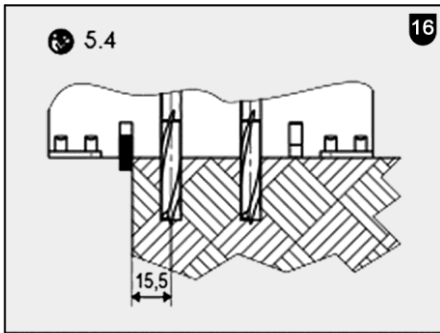
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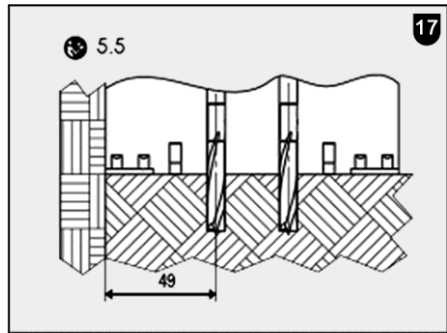
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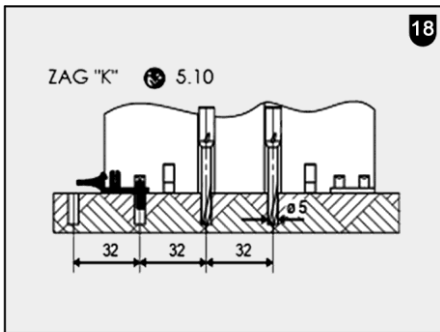
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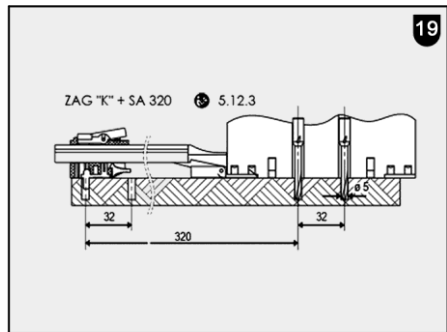
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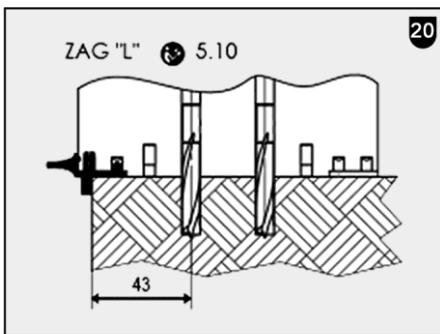
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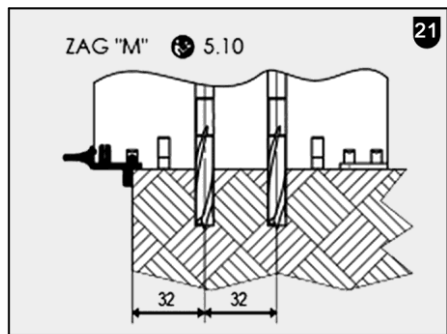
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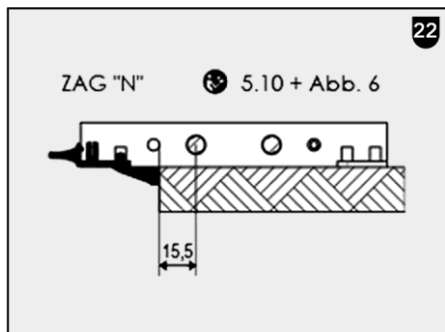
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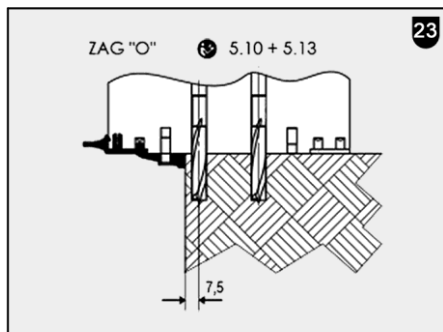
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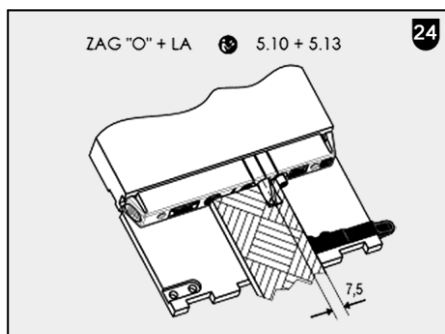
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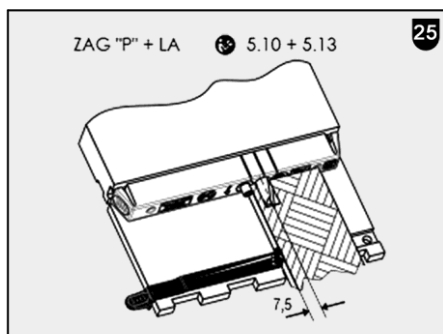
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1 Signs and symbols



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 918601, 918602, 918620, 918621, 918622, 918623, 918625, 918626

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 I

Machine must be grounded for operation.



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	110 V~, 50 Hz
Power input (nominal load)	900 W	
Current at nominal load	3.9 A	8.2 A
Drill bit distance	32 mm (1.26 in.)	
Drilling depth	0 - 40 mm (0 - 1.57 in.)	
Swivel range	0 - 90°	
Tool diameter maximum	12.2 mm (4.80 in.)	
Tool diameter minimum	3 mm (0.12 in.)	
Tool mounting hole	8 mm (0.31 in.)	
Tool idling speed	8000 rpm	
Outside diameter hose connector	29 mm (1.14 in.)	
Weight without mains cable	2,8 kg (6.17 lbs)	
Dimensions (W x L x H)	145 x 300 x 164 mm (5.71 x 11.81 x 6.46 in.)	

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 EN 60745:

Sound pressure level	$L_{PA} = 82 \text{ dB (A)}$
Uncertainty	$K_{PA} = 3 \text{ dB (A)}$
Sound power level	$L_{WA} = 93 \text{ dB (A)}$
Uncertainty	$K_{WA} = 3 \text{ dB (A)}$

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

2.4.2 Vibration specifications

The typical hand-arm vibration according to EN 62841 is 3 m/s².

2.5 Scope of supply

DDF 40 MidiMAX

Item-No. 918601, 918625	1 position indicator PAZ
2 carbide-tipped dowel drill bits \varnothing 8 mm (0.31 in.)	1 Allen key with handle
1 package wooden dowels \varnothing 8x30 mm (approx. 200 pcs.)	1 bottle of glue
1 additional support plate ZA	2 anti-slip mats
1 additional stop set ZAG	1 carrying case
1 hose connector	1 operating manual
	1 folder "Safety instructions"

DDF 40 MaxiMAX

Item number 918602, 918620, 918621, 918622, 918623, 918626

2 carbide-tipped dowel drill bits \varnothing 6 mm (0.24 in.)

2 carbide-tipped dowel drill bits \varnothing 8 mm (0.31 in.)

Further scope of delivery DDF 40 MaxiMAX:

1 package wooden dowels \varnothing 6x30 mm (approx. 350 pcs.)

1 package wooden dowels \varnothing 8x30 mm (approx. 200 pcs.)

1 additional support plate ZA

1 additional stop set ZAG

1 hose connector

1 lateral stop set SA 320

1 trim stop LA

1 position indicator PAZ

1 Allen key with handle

1 bottle of glue

1 dowel nozzle \varnothing 8 mm (0.31 in.)

2 anti-slip mats

1 carrying case

1 operating manual

1 folder "Safety instructions"

2.6 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:

- Switch interlock during tool change
- Protection against contact with the drill bits
- Large bearing surfaces of the base plate and tilting stop
- Handles and handle recesses

2.7 Use according to intended purpose

The duo-dowel system is exclusively designed for drilling wooden materials using the drill bits approved by us with a diameter between 3 mm and 12.2 mm (0.13 and 4.80 in.).

It is used to make connections between individual parts in the workbench area. The device is not approved for drilling holes in existing walls.



Grounded machines must be connected to a properly mounted socket outlet which is grounded in accordance with all regulations and laws. Never remove the ground contact or modify the plug in any other way. Have the socket outlet checked by a qualified electrician if you have any doubts about the proper grounding of the socket outlet.



Danger

Do not interrupt the grounding by using an adapter plug.



Make sure that the connecting cable does not touch any rotating parts.

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.

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 will always remain.

- Touching the drill bits inside and outside the base plate.
- Touching the drill bits on the workpiece rear when drilling.
- Breakage of the drill bits and risk of the drill bits or parts of them being hurled away.
- Ejection of chips.

- 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.

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:

- Damaged drill bits and drill bits that have changed their form.
- Blunt drill bits as they impose an excessive load on the motor.
- Drill bits that are not suitable for the drill's idling speed.

Machine-specific safety instructions:

- After drilling, the motor unit must automatically move back to its home position. The drill bits are then completely in the protective cover. If this does not happen, the machine must be switched off immediately and repaired before further use.

Instructions on the use of personal protective equipment:

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

Instructions on operation:

- Do not reach with your hands into the drilling area and do not touch the drill bits. Position your second hand in the handle recesses provided for this purpose at 7 or 24 (Fig. 1 or 4).
- Do not reach under the workpiece.
- 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.
- Before starting to drill, tighten the depth and angle adjustments.
- Examine the workpiece for foreign objects. Never attempt to drill 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 outside diameter of hose connector 16 (Fig. 3) is 27 mm (1.06 in.).

4.3 Selection of tools

Please use the dowel drill bits listed in chapter 8 Optional accessories.

These carbide-tipped drill bits were developed specially for the DDF 40 and are suitable for all types of wood.

4.4 Tool change



Danger

Pull the power plug during all service work.

The basic requirement for correct drilling are well ground drill bits.

Proceed as follows for the tool change:

- Set the turning knob 11 (Fig. 2) to the tool change symbol. The ON switch 1 (Fig. 1) is now blocked!
- Push the motor unit forward until it engages.
- Turn around the machine (Fig. 3).
- Now turn the tool holding fixture 18 (Fig. 3) visible in the slotted hole using the Allen key so that the screws 19 are visible in the openings of the base plate.
- Unfasten the screws with the Allen key.
- Pull off the drill bits 20 to the front.
- Push the new drill bits into the tool holding fixture up to the limit stop.
- Check the drill bits' seat. Retighten the screws 19.
- Set the turning knob to drilling depth "1" or "2". Attention, the machine automatically returns to its home position!



After the tool change, you have to check the zero setting for the drill depth and readjust it where necessary.

- Set the depth stop "1" 14 (Fig. 2) to the scale depth 0.
- Set the turning knob 11 to drilling depth "1".
- Push the motor unit 17 forward and check whether the drill tip or cutting edge (depending on your requirements!) is level with the contact surface 21 (Fig. 3).

- If necessary, turn the screw 13 at stop 12 (Fig. 2) with the enclosed Allen key until the zero position is adjusted. When delivered, this is set to the drill blade!

4.5 Tilt adjustment



The tilting stop 7 (Fig. 1) can be continuously adjusted in the range from 0° to 90°. Three latching positions facilitate a fast setting of the angles 22.5°, 45° and 67.5°.

- Unfasten the wing nut 4 (Fig. 1)
- Tilt the tilting stop to the desired angle.
- Retighten the wing nut.

4.6 Drill depth adjustment



The drilling depth can be adjusted between 0 - 40 mm in 1 mm steps.

- First press button "2" 15 (Fig. 2) and push the depth stop "2" to the large depth measurement (2 to 40 mm).
- Then press button "1" 14 (Fig. 2) and push the depth stop "1" to the small depth measurement (0 to 38 mm).
- Set the turning knob 11 (Fig. 2) to drilling depth "1" or "2" as required.

4.7 Height adjustment of tilting stop



The distance can be continuously adjusted between 6.5 and 60 mm to the drill axis.

- Unfasten the wing nut 2 (Fig. 1)
- Set the tilting stop 7 (Fig. 1) to the desired scale value using the setting wheel 5 (Fig. 1).
- Retighten the wing nut.

With the rotating revolver limit stop 3 you can select five firmly preset distances:

6.5 mm, 8 mm, 9.5 mm, 11 mm, 12.5 mm, as well as a freely adjustable distance.

For this purpose, turn the threaded pin in the revolver limit stop with an Allen key AF 2.5.

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:** Push the ON switch 1 (Fig. 1) downwards until it engages.
- **Switching off:** Press ON switch 1. The ON switch jumps into off position.



The ON switch is blocked in the tool change position! Check the setting of the turning knob 11 (Fig. 2)!

5.3 Drilling

- Clamp the workpiece or prevent it from moving.
- Switch on the machine (see chapter 5.2).
- If necessary, place the machine onto the support surface of base plate 6 or tilting stop 7 (Fig. 1).
- Position the machine against the outside edge of the workpiece using one of the methods described below.
- Position your second hand in the handle recesses provided for this purpose at 7 or 24 (Fig. 1 or 4).
- Slide the motor unit over the handle hump 9 (Fig. 1) or the handle bulge 10 at the end of the motor up to the stop.
- The motor unit automatically returns to its home position. Switch off the machine.

5.4 Drilling with stop pin (Fig. 16)

The base plate 6 (Fig. 1) is equipped with two spring-loaded stop pins 8. They are used to place the drill holes at a fixed distance of 15.5 mm to the outer edge of the workpiece. The machine stop can be positioned at the left or right.

5.5 Drilling with positioning on side faces (Fig. 17)

The base plate 6 (Fig. 1) is equipped with two contact surfaces 6a (Fig. 1). They are used to place the drill

holes at a fixed distance of 49 mm to the contact surface. The machine stop can be positioned at the left or right.

5.6 Drilling according to tracing via base plate

The base plate 6 (Fig. 1) has reference markings on the top, front and bottom side for the machine centre, drill bit centre and inner sides of the stop pins or the additional stops "N". The outer reference markings on the front and top side only correspond to the leading edge of the additional stop "M" (see chapter 5.9). The reference markings on the left and right side faces 6a (Fig. 1) each correspond to the centre of the drill.

5.7 Drilling according to tracing via tilting stop

The tilting stop 7 (Fig. 1) has three reference markings. The middle reference marking corresponds to the machine centre. The reference markings on the left and right each correspond to the centre of the drill.

5.8 Vertical drilling with tilting stop

When drilling vertically (Fig. 4) with the tilting stop 7, always secure the additional support ZA 22 (Fig. 4) to the underside of the base plate with the knurled screws 23 to provide a secure support. With your free hand, press the additional support ZA against the workpiece by means of the handle support 24.

5.9 Vertical drilling with fixed distance 9.5 mm

Attach the additional support ZA 22 to the underside of the base plate using the knurled screws 23 as shown in Fig. 5 (the handle support 24 points downwards!). The additional support ZA, which protrudes 10 mm above the drilling plane, can now be used as a stop edge with 9.5 mm edge distance. The tilting stop 7 which is set to 0° ensures a secure support.

5.10 Drilling with additional stop set ZAG (Fig. 18-25)

The additional stops 25 (Fig. 6) from stop set ZAG can be inserted into contact surface 21 (Fig. 6), the underside of base plate 6 (Fig. 6) and the contact surface of tilting stop 7 (Fig. 6) with different edge distances.



For different edge distances, see sketch images on page 6.

5.11 Drilling with position indicator PAZ according to tracing (drilling of longitudinal parts, e.g. drilling of frames)



The distance can be infinitely adjusted between 19 and 60 mm to the drill axis.

- Unfasten the wing nut 2 (Fig. 1)
- Use the setting wheel 5 (Fig. 1) to move the tilting stop 7 (Fig. 1) to the very top.
- Fit the position indicator PAZ 26 (Fig. 7) onto the columns of the height guide.
- Slide the position indicator in the direction of tilting stop 7 until it engages at the tilting stop.
- Set the tilting stop 7 (Fig. 1) to the desired scale value using the setting wheel 5 (Fig. 1).
- Retighten the wing nut 2.
- The distance between the position indicator PAZ and the centre of the drill hole corresponds to the set distance of the contact surface of the tilting stop 7 (Fig. 8).
- Use the additional stop "N" on the tilting stop for right-angled alignment to the longitudinal edge of the workpiece.

5.12 Drilling with lateral stop set SA 320

5.12.1 Lateral stop for large edge distances and repositioning (flush body machining).



The edge distance can be adjusted between 105 and 320 mm in 5 mm increments to the drill centre.

The side stop 27 (Fig. 9 + 10) can be inserted alternately in 2 positions on the base plate 6 (Fig. 1).

Position 1: Mount the side stop 27 as shown in Fig. 9. The spring-loaded stop pin 30 in tab 28 is in the same direction as the stop pins in the base plate.

Position 2: Mount the side stop 27 as shown in Fig. 10. The spring-loaded stop pin 30 in tab 28 protrudes downwards beyond the contact surface of the base plate.

After inserting the side stop, check that the locking lever 31 (Fig. 9) is fully engaged.

By pressing the push-button 29 (Fig. 9) the tab 28 can be adjusted to the desired edge or repositioning distance.

5.12.2 Lateral stop for edge distance with infinitely variable fine adjustment (offset body machining)



Only useful if tab 32 is set to a minimum distance of 105 mm!

- Actuate push-button 29 (Fig. 9) and remove tab 28 completely from the stop rail.
- Slide the tab 32 (Fig. 11) with mounted roller edge guide 34 onto the stop rail and set the smallest distance 105 mm.
- Mounting the roller edge guide 34: Observe the symbols on the roller edge guide in this regard. Position the roller edge guide and push it backwards up to the stop. Close lever 37 (Fig. 11).
- Loosen the knurled nut 36 with a few turns.
- Set the knurled screw 35 to the desired distance. Adjustment travel +/- 5 mm referred to the stop pin 8 (Fig. 11). 0.1 mm travel per scale line.
- Retighten the wing nut 36.

5.12.3 Lateral stop for producing rows of holes



Only a setting to 320 mm makes sense!

(10x drilling distance 32 mm)

In this way, you avoid excessive tolerance deviations during continuous repositioning!

- Use tab 32 (Fig. 12) without the roller edge guide 34 (Fig. 11).
- Dismantling the roller edge guide 34: Observe the symbols on the roller edge guide in this regard. Open lever 37 (Fig. 11). Push roller edge guide forward and remove.
- Mount the additional stop "K" 38 (Fig. 12) from the set ZAG on the tab 32.

- Actuate push-button 33 (Fig. 12) and set the tab to 320 mm.
- Attach the additional stop "K" 38 in an existing drill hole and place the other drill holes in the row of holes.
- Then remove the side stop from the machine. Mount the additional stop "K" 38 directly on the base plate. Drill the missing holes between the previously inserted drill holes.

5.13 Drilling with trim stop LA (Fig. 24 + 25)



Danger

Only 1 drill bit with max. \varnothing 8.2 mm may be used! Remove unused threaded pin from the machine!



The drilling distance to the stop pin is 7.5 mm!

When adjusting the drilling depth, make sure that it is reduced by 15 mm by means of the trim stop LA!

For drilling narrow strips (approx. 14 - 48 mm) and small drilling distances, use the trim stop LA 39 (Fig. 13).

- Mount only 1 piece drill bit with max. \varnothing 8.2 mm. (see chapter 4.4)
- Press the locking levers 42 (Fig. 13) together at the trim stop and insert the trim stop 39 (Fig. 13) on the front side of the base plate. The trim stop can only be fitted in the correct position to the mounted drill bit!
- Use the additional stop "P" (Fig. 25) for right-angled alignment when applying it to the stop pin 40 (Fig. 13), or to the additional stop "O" (Fig. 24) from the set ZAG on the stop pin 41.

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	Turning knob 11 (Fig. 2) is set to "Tool change".	Set the turning knob to drilling depth "1" or "2".

Insert these into the corresponding mountings of the tilting stop.

5.14 Drilling with dowel drilling template

For working with the dowel drilling template 43 (Fig. 14 + 15) see operating instructions of the dowel drilling template. Order no. see chapter 8 Special accessories.

For horizontal drilling, position the toothing of the tilting stop 7 against the dowel drilling template as shown in Fig. 14.

For vertical drilling, tighten the additional support ZA 22 (Fig. 4) to the underside of the base plate with the knurled screws 23. Then apply the toothing of the additional support to the dowel drilling template as shown in Fig. 15.

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.

Defect	Cause	Elimination
	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 drilling is in process	Mains failure	Check mains back-up fuses
Burn marks on the drill holes	Feed speed too low	Increase feed speed
	Blunt drill bit	Regrind drill bit or replace
Chip ejection blocked	Wood is too damp	
	Extended drilling without extraction	Connect machine to an external extraction, e.g. portable dust extractor

8 Optional accessories

- Dowel drill bit - DB HSS Ø 3 mm (0.118 in.) Order No. 090 083
- Dowel drill bit - DB HW Ø 5 mm (0.196 in.) Order No. 090 089
- Dowel drill bit - DB HW Ø 6 mm (0.236 in.) Order No. 090 096
- Dowel drill bit - DB HW Ø 6.1 mm (0.240 in.) Order No. 090 120
- Dowel drill bit - DB HW Ø 8 mm (0.314 in.) Order No. 090 097
- Dowel drill bit - DB HW Ø 8.1 mm (0.318 in.) Order No. 090 122
- Dowel drill bit - DB HW Ø 8.2 mm (0.322 in.) Order No. 090 123
- Dowel drill bit - DB HW Ø 10 mm (0.393 in.) Order No. 090 098
- Dowel drill bit - DB HW Ø 10.1 mm (0.397 in.) Order No. 090 124
- Dowel drill bit - DB HW Ø 10.2 mm (0,401 in.) Order No. 090 125
- Dowel drill bit - DB HW Ø 12 mm (0,472 in.) Order No. 090 099
- Dowel drill bit - DB HW Ø 12.2 mm (0,480 in.) Order No. 090 127
- Lateral stop set SA 320 Order No. 206 490
- Trim stop LA Order No. 206 491
- Dowel drilling template clamping device, 800 mm (31.496 in.) Order No. 203 980
- Dowel drilling template extension 1600 cpl., length 1600 mm (62.992 in.) Order No. 203 434
- Screw clamp with stop (for working with dowel drilling template extension) Order No. 093 280
- Screw clamp (for rail fixing on the workpiece) Order No. 093 281
- Wood dowel see specialised trade, DIY store etc.

9 Exploded drawing and spare parts list

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