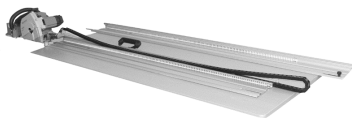


mafelli

PSS 3100 SE

170090.0914/j

(D)	Plattensägesystem	Originalbetriebsanleitung und Ersatzteilliste	5
(GB)	Board sawing system	Original operating instructions and spare parts list	20
(F)	Système de sciage de panneau	Notice d'emploi originale et liste de pièces de rechange	34
(I)	Sistema di sezionatura per pannelli	Istruzioni per l'uso originali e lista pezzi di ricambio	49
(NL)	Platenzaagsysteem	Originele Gebruiksaanwijzing en lijst met reservedelen	64
(E)	Sistema para cortar tableros	Manual de instrucciones original y lista de piezas de recambio	78
(FIN)	Levyssähausjärjestelmä	Alkuperäiskäyttöohje ja varaosaluettelo	93
(S)	Panelsågssystem	Originalbruksanvisning och reservdelslista	107
(DK)	Pladesavesystem	Original driftsvejledning og reservedelsliste	120



MAF01450/a

ACHTUNG!

Diese Betriebsanleitung enthält Hinweise, die für das sichere Arbeiten mit dieser Maschine wichtig sind. Lesen Sie deshalb unbedingt diese Betriebsanleitung.

WARNING!

These operating instructions contain important information on safe working practices for this machine. It is therefore essential that you read these operating instructions carefully.

ATTENTION !

Cette notice d'emploi contenant des indications importantes pour la sécurité du travail avec cette machine, veuillez donc la lire impérativement.

ATTENZIONE!

Le presenti istruzioni per l'uso contengono avvertenze importanti per lavorare con sicurezza con questa macchina. Per questo motivo è assolutamente necessario leggere le presenti istruzioni per l'uso con la dovuta accuratezza.

ATTENTIE!

Deze gebruiksaanwijzing omvat instructies die voor het veilige werken met deze machine belangrijk zijn. Lees vandaar in ieder geval deze gebruiksaanwijzing.

¡ATENCIÓN!

Lea atentamente este manual de instrucciones, que contiene la información necesaria para garantizar la seguridad en el trabajo con esta máquina.

HUOMIO!

Tämä käyttöohje sisältää ohjeita, jotka ovat tärkeitä koneen turvallisen käytön kannalta. Lue käyttöohje sen vuoksi huolellisesti!

OBSERVERA!

Denna bruksanvisning innehåller anvisningar, viktiga för säkert arbete med denna maskin. Läs därför denna bruksanvisning noga!

GIV AGT!

Denne driftsvejledning indeholder vigtige henvisninger om sikkerheden ved brug af maskinen. Læs driftsvejledningen omhyggeligt.

D - EG Konformitätserklärung

Wir bescheinigen hiermit, dass die Maschine PSS 3100 SE 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 PSS 3100 SE 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 PSS 3100 SE 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 PSS 3100 SE 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 PSS 3100 SE 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 PSS 3100 SE 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 PSS 3100 SE 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 PSS 3100 SE 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 PSS 3100 SE opfylder de angivede EU-direktiver. Konstruktion og bygning er udført iht. de angivede standarder.

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



2006/42/EG
2004/108/EG
2011/65/EG

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

PSS 3100 SE

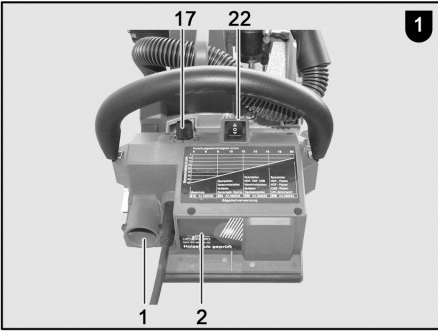
Art.-Nr. 916201, 916220, 916221, 916222,
916225

Mafell AG

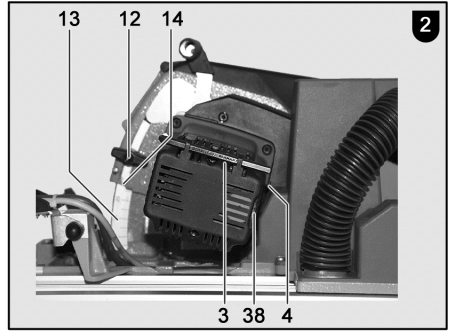
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Krauss

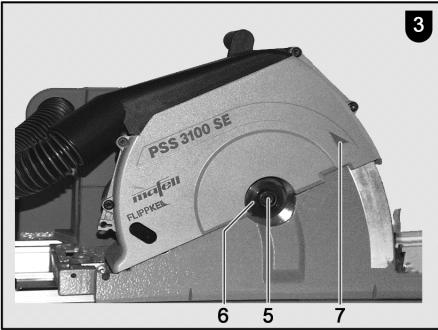
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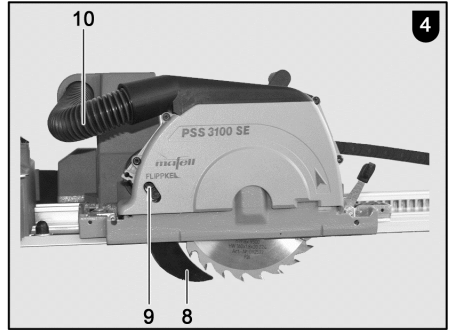
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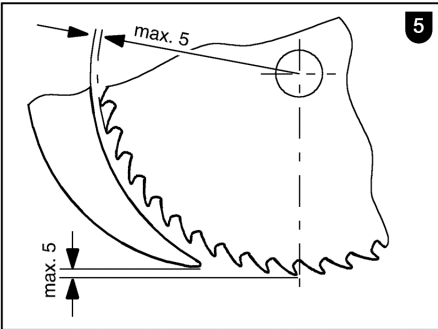
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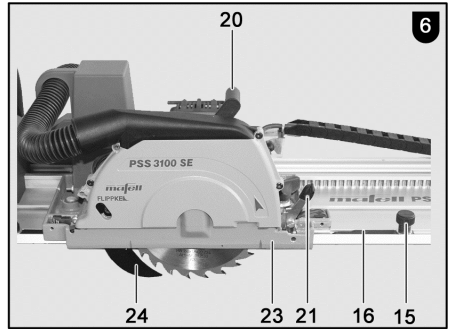
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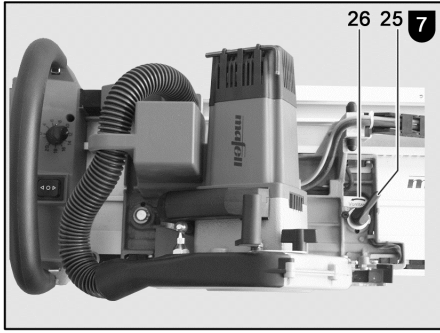
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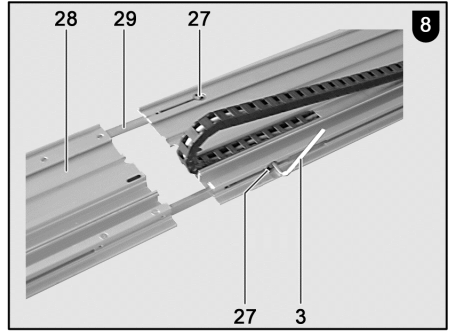
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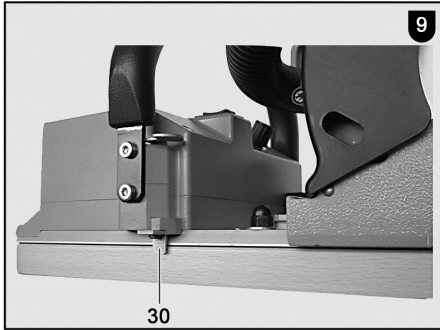
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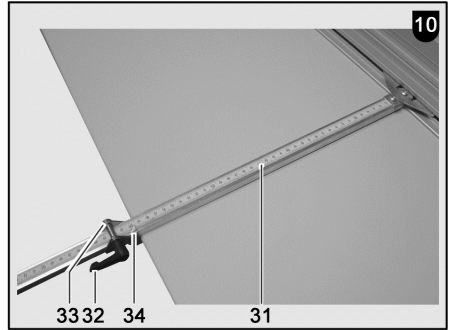
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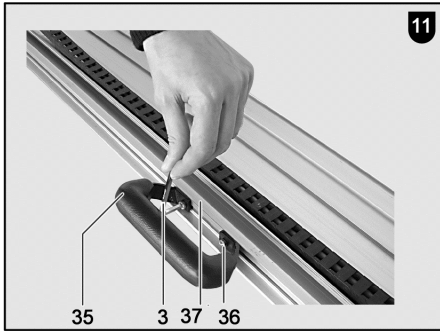
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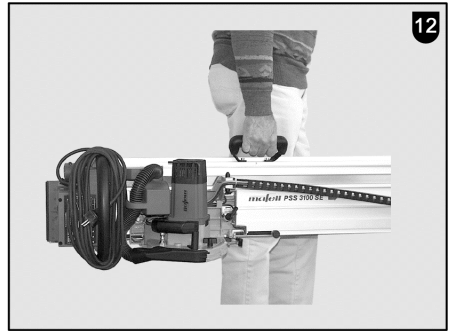
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Table of Contents

1	Signs and symbols	21
2	Product information	21
2.1	Manufacturer's data	21
2.2	Machine identification	21
2.3	Technical data	22
2.4	Noise emission specifications	23
2.5	Scope of supply	23
2.6	Safety devices	23
2.7	Use according to intended purpose	24
2.8	Residual risks	24
3	Safety instructions	24
4	Setting / Adjustment	26
4.1	Installation / transport	26
4.2	Mains connection	26
4.3	Chip extraction	26
4.4	Saw blade selection	26
4.5	Replacing the saw blade	27
4.6	Riving knife / splitter	27
5	Operation	27
5.1	Initial operation	27
5.2	Switching on and off	27
5.3	Cutting depth adjustment	27
5.4	Cutting length adjustment	28
5.5	Feed speed adjustment	28
5.6	Control electronics	28
5.7	Longitudinal cuts	28
5.8	Plunge cuts	29
5.9	Scoring	29
5.10	Use of the guide rail extension	30
5.11	Cuts in excess of 3100 mm (122 in.) length	30
5.12	Parallel cuts with special accessory crossfeed stop (2 pieces required)	30
6	Transport and storage	30
6.1	Transport	30
6.2	Storage	31
7	Service and maintenance	31
7.1	Machine care	31
7.2	Storage	31
8	Troubleshooting	31
9	Optional accessories	33

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

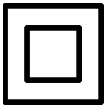
for machines with product no. 916201, 916220, 916221, 916222 or 916225

2.1 Manufacturer's data

MAFELL AG, Postfach 1180, D-78720 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

Total connected loads:

Nominal voltage	230 V~, 50 Hz or 110 V~, 50 Hz
Nominal power consumption	1490 W
Nominal current	6.5 A or 13.5 A

Saw blade drive:

Universal motor, radio and TV interference suppressed	230 V~, 50 Hz or 110 V~, 50 Hz
Power input (nominal load)	1350 W
Nominal current (nominal load)	5.9 A or 12.9 A

Feed drive:

Permanent solenoid DC motor	12 V
Nominal power consumption	32 W
Nominal current	2.65 A
Nominal speed	3750 rpm
Saw blade speed during idling	2600 rpm - 5200 rpm
Saw blade speed at normal load	1700 rpm - 3400 rpm
Feed speed without load	4 – 20 m/min (13.1 – 65.6 ft/min.)
Return speed	25 m/min (82 ft/min.)
Cutting depth	0 - 45 mm (0 - 1 ¾ in.)
Saw blade diameter max/min	160/149 mm (6 ¼ / 5 ¾ in.)
Largest thickness basic saw blade body	1.2 mm (3/64 in.)
Saw blade cutting width	1.8 mm (5/64 in.)
Saw blade mounting hole	20 mm
Hose connector diameter	35 mm (1 3/8 in.)
Cutting length without extension	1300 mm (51 in.)
Cutting length with extension	3100 mm (122 in.)
Bearing face with guide rail	3770 x 225 mm (148 x 8 7/8 in.)
Dimensions (W x L x H) without extension	340 x 1980 x 230 mm (13 3/8 x 78 x 9 1/16 in.)
Weight without mains cable and without extension	14 kg (30.7 lbs)
Weight of the extension	4.5 kg (9.9 lbs)
Total weight without mains cable	18.5 kg (40.7 lbs)

2.4 Noise emission specifications

Following EN ISO 3746, EN ISO 11202 and Annex P of ISO 7960, noise emission was determined with the following deviations from these standards:

Saw blade:	carbide-tipped circular saw blade Ø 160 mm (6 ¼ in.), 32 teeth
Workpiece:	uncoated chip board 16 mm (5/8 in.), length 1200 mm (47 in.), original width 700 mm (27 9/16 in.) and cutting of 40 mm (1 9/16 in.) wide strips
Feed speed:	17 m/min (55.8 ft/min.)
Working noise measurement:	Cutting stroke + reverse motion of the saw unit with turned on saw blade drive
Microphone position work station:	300 mm (11 3/16 in.) behind the machine's short side, at the centre of the machine, 1.5 m (59 in.) above the floor

	Sound power level	Workplace-related emission value
Machining	108 dB (A)	97 dB (A)

The included uncertainty K amounts to 4 dB.

The values stated do not take into consideration any possible series variances and are not suitable for determining the rating levels, as these fluctuate in dependence on the time in service, the respective type of machining and the environmental influences. The noise rating level can therefore only be determined on an individual basis at the machine user's position.

2.5 Scope of supply

Board sawing system PSS 3100 SE complete with:

- 1 guide rail extension
- 1 carbide-tipped circular saw blade Ø 160 mm (6 ¼ in.), 24 teeth
- 1 riving knife / splitter thickness 1.2 mm (3/64 in.)
- 1 bracket handle
- 1 service tool in retaining bracket on the motor casing
- 1 anti-friction agent
- 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.

- Stationary guards around the saw blade.
- Large bearing faces of the guide rails with slip guards.
- Operation of infeed and saw blade drive from one operating point.
- Index mechanisms without catch
- Riving knife / splitter
- Dust extractor

The machine is equipped with the following safety devices:

2.7 Use according to intended purpose

The MAFELL board sawing system PSS 3100 SE is exclusively intended for cutting the following materials:

- Solid wood
- Uncoated and coated chip boards, solid wood boards and multiplex boards
- MDF-, HDF- and OSB boards
- HP-laminate
- Gypsum fibre boards
- Cement-bonded boards
- Fibre cement boards in conjunction with a diamond saw blade

The maximum workpiece thickness may not exceed 45 mm. 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.

2.8 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.

Residual risks

- Touching the saw blade projecting below the guide rail in home position at the start of a cut.
- Touching the part of the saw blade projecting below the workpiece during cutting and at the end of the cut if the slide bar is not correctly set for automatically lifting into rest position.
- Tilting of the machine if the projecting guide rail is not sufficiently supported behind the workpiece to be cut.
- Touching of turning parts from the side: saw blade body, clamping flange and flange screw.

- 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.
- Injuries caused by the sharp saw blade teeth while exchanging the saw blade.
- Hearing impairment in case of longer lasting work without ear protectors. Emission of wood dusts that are hazardous to health in case of longer lasting operation without dust 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:

- 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 basic 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 correctly sized saw blades with matching receiving bore (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 gets jammed or sawing is interrupted for some other reason, release the on/off switch and keep the saw steady in the material, until the saw blade has come to a complete standstill. 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 that matches 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 a bent riving knife / splitter.
- Examine the workpiece for foreign objects. Never attempt to cut into nails or other metal objects.
- Select the correct saw blade and feed speed on the basis of the diagram available on the operator panel and dependent on the material to be processed.
- Set the slide bar to control interruption of the feed movement and automatic lifting of the saw unit into rest position correctly to the workpiece to be processed (workpiece length + 120 mm / 4 ¾ in.).
- Never reach underneath the workpiece while cutting (risk of injury!).
- Always lead the connecting cable away from the machine to the rear while sawing.

- Do not switch off the machine by pulling the plug if the ON switch is depressed.
- Only remove the system from the workpiece once the saw blade has come to a standstill and the saw unit has returned to its home position.
- A diamond saw blade is necessary for cutting fibre cement board.

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 Installation / transport

The board sawing system PSS 3100 SE is delivered inside a transport carton. You should first of all examine the system for possible transport damages.

Damage to the packing material may already be indicative of an improper transport. Immediately complain to your machine dealer about any transport damages identified.

Check the following parts for a correct and tight seat:

- Saw blade
- Riving knife / splitter
- Connection tube (saw guard)

4.2 Mains connection

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

The board sawing system PSS 3100 SE is equipped with protective earthing according to Class I - EN 60745 and may therefore only be connected to socket outlets with protective earth conductor.

4.3 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 1 (Fig. 1) is 35 mm (1 3/8 in.).

Operation without extraction is basically not advisable. If no external dust extractor is available during use outdoors or in sufficiently ventilated rooms, you must remove the connection tube 10 (Fig. 4) between saw unit and chips guide duct to avoid clogging the chips guide duct.

In Germany, certified dust extractors are required for the extraction of wood dusts. Air values that reliably fall below the air limit value of (2 mg/m³) can only be guaranteed if the board sawing system is connected to a certified dust extractor (e.g. industrial vacuum cleaner or combination device).

This requires the following operating method:

Execution of separating cuts on the pile of boards and in the process scoring the board underneath at least 1 mm.

With this operating method, the system has received the FPH mark of conformity "Wood dust certified".

4.4 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:

Cutting of solid wood:

- TCT circular saw blade Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 16 teeth

Cutting of solid wood boards, chip boards, cement-bonded chip boards, multiplex boards:

- TCT circular saw blade Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 24 teeth

Cutting of solid wood boards, chip boards, multiplex boards, HDF-, MDF- and OSB-boards, gypsum fibre boards:

- TCT circular saw blade Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 32 teeth

Cutting of chip boards, HDF-, MDF-, and OSB-boards, coated boards, OSB, HP-laminate:

- TCT circular saw blade Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 56 teeth

For fibre cement boards, the diamond saw blade

- Ø 160 x 3.0 x 20 mm (6 1/4 x 1/8 in. x 20mm), 4 teeth is suitable

These specifications can also be found on diagram 2 (Fig. 1) that is attached to the operator panel. From this diagram you can gather the matching feed speeds.

4.5 Replacing the saw blade



Danger

Pull the power plug during all service work.

- Do not press the locking bolt 4 (Fig. 2).
- Using the Allen key 3 (brackets Fig. 2), unfasten the flange screw 5 (Fig. 3) **counter clockwise**; remove the screw as well as the front clamping flange 6.
- You can now remove the saw blade by lifting it to the front and pulling it away with a downward movement. Removing the saw blade is made easier if you tilt the system that far that the saw blade is automatically released from the rear flange collar.
- 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.

4.6 Riving knife / splitter



Danger

Pull the power plug during all service work.

The riving knife / splitter 8 (Fig. 3) prevents the saw blade from jamming during longitudinal cutting. The correct distance to the saw blade is shown in Fig. 5.

- Set the saw blade to the largest cutting depth (see Section 5.3).
- For adjustment, unfasten the two cylinder-head screws 9 (Fig. 4) with the Allen key supplied with the saw 3 (Fig. 2).
- Adjust the riving knife / splitter by shifting it in its longitudinal slit. Afterwards retighten the two cylinder-head screws.

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



Danger

Pay attention that the saw blade moves freely and does not make contact with the workpiece. Lead the connecting cable and extraction hose away to the rear.

- **Switching on:** To turn on the saw blade drive, press the rocker switch 22 (Fig. 1) in direction ▲ and keep it depressed.
- **Switching off:** To switch off the saw blade drive, release the rocker switch 22. The infeed and the saw blade drive are immediately switched off. The saw blade will come to a standstill in less than 10 seconds.



Danger

The saw blade immediately starts if the switch is pressed, shortly afterwards the infeed starts automatically.

5.3 Cutting depth adjustment

The cutting depth is continuously variable between 0 and 45 mm (0 to 1 ¾ in.).

Proceed as follows:

- Unfasten the wing screw 12 (Fig. 2).
- Set the cutting depth with the depth stop 13 according to the scale. The bevelled edge 14 of the gearbox case serves as indicator.
- Retighten the wing nut.



Always set the cutting depth approx. 2 to 5 mm (1/16 to 3/16 in.) larger than the material thickness to be cut.

5.4 Cutting length adjustment



You can set the cutting length up to 1300 mm (51 in.) with the normal guide rail. Once the guide rail extension has been installed, you can vary the cutting length continuously up to 3100 mm (122 in.).

Set the cutting length as follows:

- Unfasten the knurling screw 15 (Fig. 6) at the stop slide 16.
- Set the stop slide 16 in the groove of the guide rail such that its position is approx. 120 mm (4 3/4 in.) longer than the desired cutting length.
- Retighten the wing screw 15.



Always use the stop slide and set it correctly. Otherwise the saw blade will not automatically return to rest position at the end of the cut. The saw blade is then not completely concealed!

5.5 Feed speed adjustment



You can set the feed speed continuously between 4 and 20 m/min (13.1 and 65.6 ft/min).

You achieve a perfect cut edge if in addition to selecting a suitable saw blade you also adapt the feed speed to the material to be processed. Suitable combinations "Material – saw blade – feed speed" are contained in diagram 2 (Fig. 1).

Set the desired feed speed at the rotary switch 17 that is arranged on the operator panel. If the rotary switch is turned counter clockwise against the limit stop, the infeed is switched off.

5.6 Control electronics

With the setting wheel 38 (Fig. 2) you can continuously adjust the saw speed between 2600 and 5200 rpm.

Which speed has to be set for which material can be gathered from the chart.

1	2600min ⁻¹	
2	3150min ⁻¹	
3	3700min ⁻¹	
4	4200min ⁻¹	PVC
5	4650min ⁻¹	Plexi
6	5200min ⁻¹	PA
		Fiber cement plates

5.7 Longitudinal cuts

To execute a longitudinal cut after tracing, proceed as follows:

- Place the machine with the saw unit in home position onto the horizontal workpiece that has been secured against shifting. The saw unit must at the same time be located in front of the front workpiece edge.
- Align the machine such that the right edge of the guide rail marks the desired cut.
- Set the cutting depth (see section 4.2).
- Set the cutting length (see section 4.3).
- Release the saw blade locking mechanism in rest position by pressing the plunge handle 20 (Abb. 6). Then press the saw unit into cutting position until it engages at the clamping lever 21.
- Select the feed speed (see section 4.4) and switch on the saw drive (see section 4.5).
- Execute the saw cut by pressing the rocker switch 22 (Fig. 1) in direction ▲ until the saw unit drives up against stop slide 16 (Fig. 6) causing the saw blade to automatically return into rest position.



Please note that the infeed only runs as long as the rocker switch is pressed. When the rocker switch is released, the infeed and saw drive are immediately switched off.

Move the saw unit into home position by pressing the rocker switch in direction ▼. On reaching the rest position, the reverse motion is switched off automatically.



Danger

Even in reverse motion, the saw blade may still be turning.



Only move the saw unit backwards if the saw blade is in rest position. Failure to do so may damage the cut edge on the workpiece! If you interrupt the infeed before reaching the stop slide, you have to bring the saw blade into rest position before its reverse motion by actuating the clamping lever 21 (Fig. 6).

5.8 Plunge cuts

With this system, you can safely execute plunge cuts. An otherwise existing hazard due to backlash does not exist with this machine using this operating sequence.

Execute plunge cuts as follows:

1. Move the saw unit by actuating the rocker switch 22 (Fig. 1) in direction ▲ until the front marking 23 (Fig. 6) agrees with the desired end of the plunge cut that has been marked on the workpiece.



Danger

During the movement, the saw blade drive is also turned on.



Please note that the marking only agrees with the desired plunge point if the saw unit has been set to the deepest cutting depth.

- Adjust the stop slide 16 in the groove of the guide rail such that it is located 120 mm (4 ¾ in.) behind the marked end of the plunge cut.
- By actuating the feed switch, move the saw unit in direction ▼ until the rear marking 24 agrees with the desired start of the plunge cut that has been marked on the workpiece.
- Switch off the feed speed (see section 4.4) and switch on the saw drive with rocker switch 22 (Fig. 1) (see section 4.5).
- Release the saw blade's locking mechanism in rest position by pressing the plunge handle 20 and then press the saw unit into the cutting position until it engages.
- Execute the saw cut by pressing the rocker switch 22 in direction ▲ until the saw unit runs up against the stop slide 16 (Fig. 6) causing the saw blade to automatically return from cutting position into rest position. To do so, you have to switch the infeed back on again.
- Switch off the saw drive by releasing the rocker switch.
- Move the saw unit back into home position by pressing the rocker switch in direction ▼.

5.9 Scoring

With the board sawing system, it is also possible to cut coated boards splinter-free with the integrated scoring equipment.

Proceed as follows:

- Turn the scoring lever 25 (Fig. 7) in the direction specified on arrow symbol 26 (with that you offset the saw blade by approx. 0.15 mm (1/128 in.) into the position "scoring").
- Set the cutting depth to 2 mm (1/16 in.) (see section 4.2).
- Execute the scoring cut. Move the saw unit back into home position.
- Turn the scoring lever 25 back into basic position.
- Set the cutting depth according to the workpiece thickness (see section 4.2). Execute the separating cut.

5.10 Use of the guide rail extension

To execute longitudinal cuts with a length in excess of 1300 mm (51 in.) up to maximum 3100 mm (122 in.), the guide rail extension that is supplied as a standard is used.



Danger

Please note that both when installing and dismantling the extension, the entire machine must be secured against tilting by means of sufficiently long supports!

Carry out the installation as follows:

- Remove the hexagon head socket wrench 3 (Fig. 2) from its retaining bracket on the machine. Then use it to adjust both clamping pieces 27 (Fig. 8) such that their opening is pointing in the direction of the guide rail end.
- Insert extension 28 with the two adaptors 29 into the grooves on the guide rail intended for that purpose up to the limit stop.
- Tighten the two clamping pieces 27 clockwise and return the hexagon head socket wrench 3 (Fig. 2) to its retaining bracket on the motor casing.

5.11 Cuts in excess of 3100 mm (122 in.) length

If longitudinal cuts exceeding a length of 3100 mm (122 in.) are to be carried out, the machine offers the possibility to do so. Once the first part of the cut is completed, you can reinsert the machine at the end of the existing kerf. In this manner, you achieve an offset-free extension of the cut.

To extend the cut proceed as follows:

- After completion of the first cut, press the refeeding stop 30 (Fig. 9) downwards. Insert the machine with the refeeding stop at the end of the kerf such that the saw unit too is still located above the kerf.
- Align the guide rail at the other end for a straight extension of the cut. The crossfeed stop system that is available as a special accessory is particularly suited in this regard.
- Execute the following cut.



Danger

Switch off the saw blade drive before offsetting the machine for the next cut !

5.12 Parallel cuts with special accessory crossfeed stop (2 pieces required)

The crossfeed stop that is available as special accessory (cutting width stop) makes it possible to execute a cut that runs parallel to the left workpiece edge. You can also set the desired cutting width. The limit stop consists of two rails with limit stops, which can be adjusted between 250 mm (9 ¾ in.) and 1250 mm (49 in.).

Use the limit stops as follows:

- Hook the two crossfeed stops 31 (Fig. 10) by swivelling in from the top into the groove available at the left edge of the guide rail.
- Adjust the desired cutting width by releasing the grip lever 32 and moving the sliding stop 33. The cutting width is shown at indicator 34. Afterwards reclamp the grip lever 32.
- Position the entire machine on the workpiece such that the two sliding stops rest against the left edge of the workpiece. Then execute the parallel cut as described in section 4.7.



To guarantee an accurate parallel cut, position the two crossfeed stops with a sufficient clearance, but best such that both can be set from the operator's location.

6 Transport and storage

6.1 Transport



Always take off the extension for transport!

The bracket handle 35 is intended for transports across longer distances (Fig. 11). For that purpose it must be set to the position on the guide rail that corresponds to the system's centre of gravity. Proceed as follows to carry out the setting:

- Take off the extension if it has been installed.
- Detach the two hexagon socket head cap screws 36 with the Allen key 3.
- Move the bracket handle 35 in the guide rail groove until marking 37 is located in the centre of the bracket handle.
- Retighten the hexagon socket head cap screws 36 and return the Allen key to its retaining bracket on the motor casing.
- Once the bracket handle has been set like this, an ergonomically favourable transport of the machine as shown in Fig. 12 is possible.

6.2 Storage

For space-saving storage it is recommended to lean the board sawing system vertically against the wall with the saw unit in home position. The standing edge on the operator panel is equipped with an antislip coating.



Before this storage, always remove the extension, thus preventing the rails from bending.

7 Service and maintenance

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.

8 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	Disposal
Saw blade drive 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

7.1 Machine care



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.

7.2 Storage

The machine must be regularly cleaned of deposited dust (daily when processing gypsum fibre board). At the same time, joints and guide pieces in particular in the guide rail as well as the ventilation openings on the motor should be cleaned with a vacuum cleaner. Occasional spraying with machine oil maintains the ease of movement of joints and guide pieces.

Defect	Cause	Disposal
Feed drive cannot be switched on	No mains voltage	Check power supply
	Mains fuse defective	Replace fuse
	Saw unit has driven against limit switch at the stop slide or at the operator panel	Initiate infeed counter movement
	Limit switch at stop slide or operator panel defective	Take the machine to a MAFELL customer service shop
Feed drive does not switch off if end position is approached	Limit switch at stop slide or operator panel defective	Take the machine to a MAFELL customer service shop
Feed speed cannot be controlled	Control (e.g. control dial) defective	Take the machine to a MAFELL customer service shop
Saw unit stops while cutting is in process	Mains failure	Check mains back-up fuses
	Selected feed speed too high	Reduce feed speed
Saw blade jams during saw unit advance	Selected feed speed too high	Reduce feed speed
	The saw blade used is unsuitable for the material or blunt	Immediately stop the infeed and saw blade drive by releasing the switch. Remove the machine from the workpiece and replace the saw blade
	Tension in the workpiece	Riving knife / splitter not available contrary to the regulations. Stop system as described above and by all means use riving knife / splitter
Burn marks on the cut surfaces	The saw blade used is unsuitable for the task or blunt	Replace saw blade
	Feed speed too low	Increase feed speed
Chip ejection blocked	Wood is too damp	
	Cutting without extraction	Use external extraction, e.g. small dust collector
	External extraction too weak	Use stronger external extraction  Before turning on again, the extraction hose between chip outlet, saw unit and chip channel must be pulled off and cleaned

9 Optional accessories

- | | |
|------------------------------------------------------------------------------------------------------------------------|------------------|
| - crossfeed stop (Cutting width stop) | Order No. 203353 |
| - Saw blade-TCT Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 16 teeth | Order No. 092539 |
| - Saw blade-TCT Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 24 teeth | Order No. 092533 |
| - Saw blade-TCT Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 32 teeth | Order No. 092552 |
| - Saw blade-TCT Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 48 teeth
FZ/TR for sawing Trespa (laminated sheets) | Order No. 092569 |
| - Saw blade-TCT Ø 160 x 1.8 x 20 mm (6 1/4 x 5/64 in. x 20 mm), 56 teeth | Order No. 092553 |
| - Saw blade-DIA Ø 160 x 3.0 x 20mm (6 1/4 x 1/8 in. x 20 mm), 4 teeth | Order No. 092474 |
| - Diamond saw blade kit (saw blade DIA and riving knife / splitter) | Order No. 203640 |
| - Guide rail - extension for sawing length 1600 mm (63 in.) | Order No. 203752 |
| - Guide rail - extension for sawing length 2600 mm (102 in.) | Order No. 203751 |