# **FESTOOL**

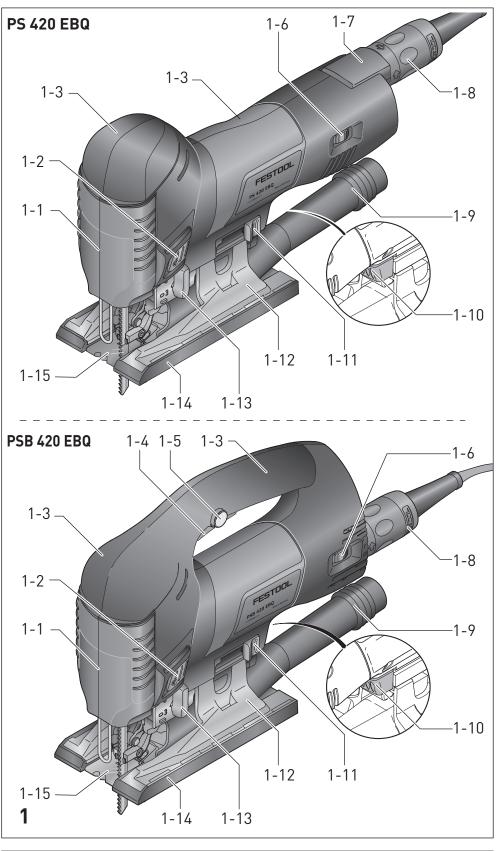
de	Originalbetriebsanleitung - Stichsäge	8
en	Original Instructions – jigsaw	16
fr	Notice d'utilisation d'origine - scie sauteuse	24
es	Manual de instrucciones original - Caladora	32
it	Istruzioni per l'uso originali - Seghetto alternativo	40
nl	Originele gebruiksaanwijzing - decoupeerzaag	48
sv	Originalbruksanvisning – sticksåg	56
fi	Alkuperäiset käyttöohjeet - Pistosaha	63
da	Original brugsanvisning – stiksav	70
nb	Original bruksanvisning for stikksag	77
pt	Manual de instruções original - Serra tico-tico	84
ru	Оригинальное руководство по эксплуатации — лобзиковая пила	92
CS	Originální návod k obsluze – přímočará pila	100
pl	Oryginalna instrukcja obsługi - wyrzynarka	107

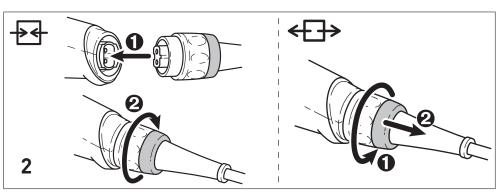
CARVEX PS 420 EBQ PSB 420 EBQ

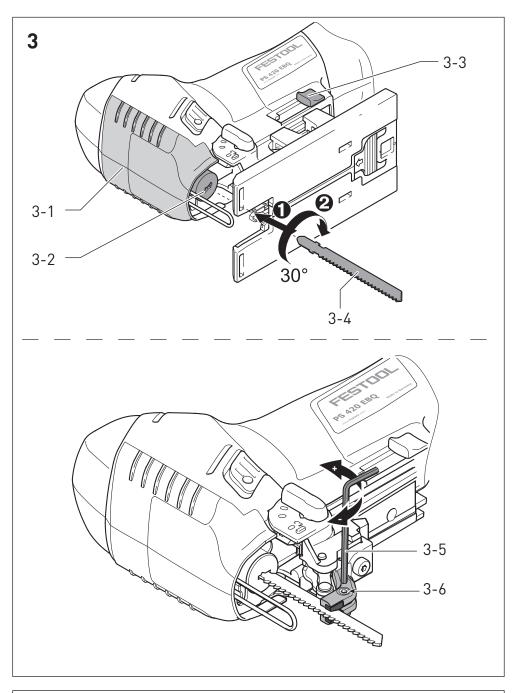


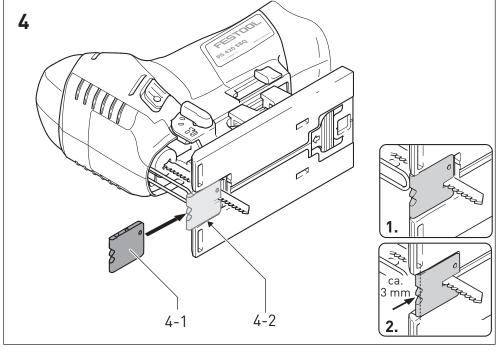
Festool GmbH Wertstraße 20 73240 Wendlingen Germany +49 (0)7024/804-0 www.festool.com

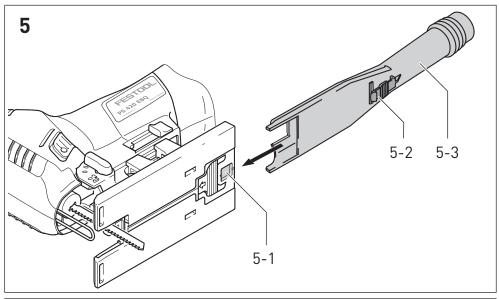


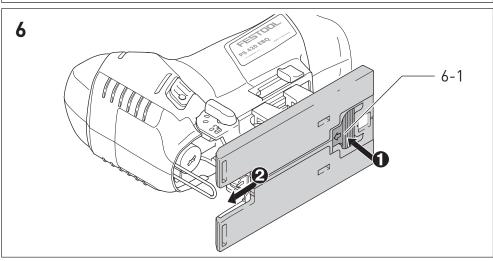


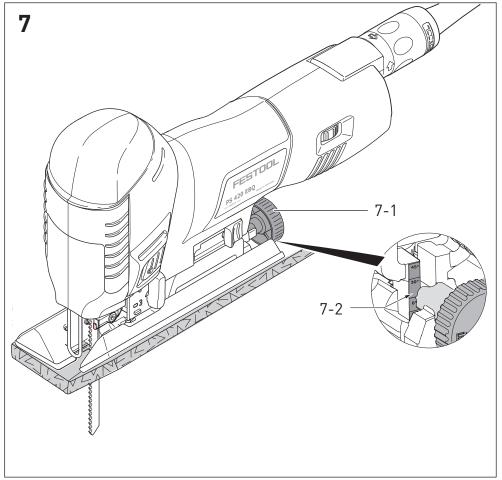


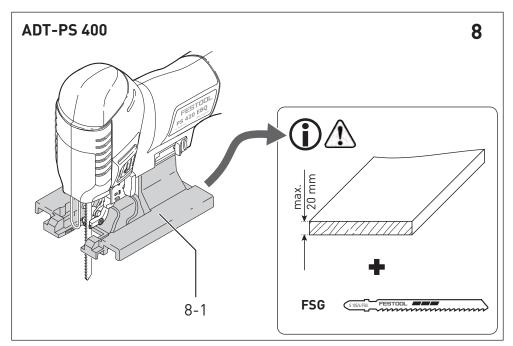


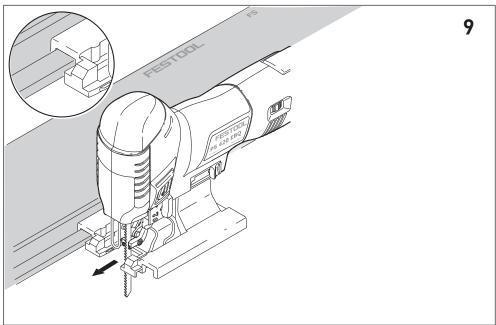


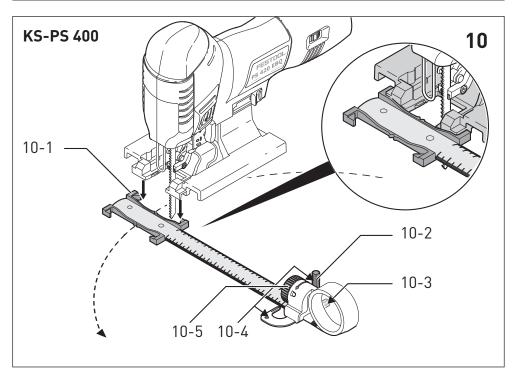














# Declaration of Conformity

We as the manufacturer **Festool GmbH, Wertstraße 20, 73240 Wendlingen, Germany** declare under our sole responsibility that the product(s):

Designation:

**Jigsaw** 

Designation of Type(s):

**PS 420 EBQ, PSB 420 EBQ** 

Serial number(s) 11:

10212367, 10212368

fulfills all the relevant provisions of the following UK Regulations:

• S.I. 2008/1597

Supply of Machinery (Safety) Regulations 2008

• S.I. 2016/1091

**Electromagnetic Compatibility Regulations 2016** 

• S.I. 2012/3032

Restriction of the Use of Certain Hazardous Substances in Electrical

and Electronic Equipment Regulations 2012

and are manufactured in accordance with the following designated standards:

- BS EN 62841-1: 2015
- BS EN 62841-2-11:2016+A1:2020
- BS EN 55014-1:2017
- BS EN 55014-2:2015
- BS EN IEC 61000-3-2:2019
- BS EN 61000-3-3:2013
- BS EN IEC 63000:2018

UK

Place and date of declaration: Wendlingen, 15.04.2021

Signed on behalf of and in name of Festool GmbH

Markus Stark

Head of Productdevelopment

Ralf Brandt

Head of Productconformity

in the specified serial number range (S-Nr.) from 400000000 - 499999999

Stichsäge Jig saw Scie sauteuse	Seriennummer * Serial number * N° de série * (T-Nr.)
PS 420 EBQ	10212367, 10213003
PSB 420 EBQ	10212368, 10213005

- de EG-Konformitätserklärung. Wir erklären in alleiniger Verantwortung, dass dieses Produkt allen einschlägigen Bestimmungen der folgenden Richtlinien einschließlich ihrer Änderungen entspricht und mit den folgenden Normen übereinstimmt:
- en EC-Declaration of Conformity. We declare under our sole responsibility that this product is in conformity with all relevant provisions of the following directives including their amendments and complies with the following standards:
- fr CE-Déclaration de conformité communautaire. Nous déclarons sous notre propre responsabilité que ce produit est conforme aux normes ou documents de normalisation suivants:
- es CE-Declaración de conformidad. Declaramos bajo nuestra exclusiva responsabilidad que este producto corresponde a las siguientes normas o documentos normalizados:
- it CE-Dichiarazione di conformità. Dichiariamo sotto la nostra esclusiva responsabilità che il presente prodotto e conforme alle norme e ai documenti normativi sequenti:
- nl EG-conformiteitsverklaring. Wij verklaren op eigen verantwoordelijkheid dat dit produkt voldoet aan de volgende normen of normatieve documenten:
- **SV EG-konformitetsförklaring.** Vi förklarar i eget ansvar, att denna produkt stämmer överens med följande normer och normativa dokument:
- fi EY-standardinmukaisuusvakuutus. Vakuutamme yksinvastuullisina, etta tuote on seuraavien standardien ja normatiivisten ohjeiden mukainen:
- da EF-konformitetserklæring. Vi erklærer at have alene ansvaret for, at dette produkt er i overensstemmelse med de følgende normer eller normative dokumenter:
- nb CE-Konformitetserklæring. Vi erklærer på eget ansvar at dette produktet er i overensstem-← melse med følgende normer eller normative dokumenter:

- pt CE-Declaração de conformidade. Declaramos, sob a nossa exclusiva responsabilidade, que este produto corresponde às normas ou aos documentos normativos citados a seguir:
- ru Декларация соответствия EC. Мы заявляем с исключительной ответственностью, что данный продукт соответствует следующим нормам или нормативным документам:
- cs ES prohlašeni o shodě. Prohlašujeme s veškerou odpovědnosti, že tento vyrobek je ve shodě s nasledujicimi normami nebo normativnimi dokumenty:
- pl Deklaracja o zgodności z normami UE. Niniejszym oświadczamy na własną odpowiedzialność, że produkt ten spełnia następujące normy lub dokumenty normatywne:

2006/42/EC, 2014/30/EU, 2011/65/EU

EN 62841-1: 2015 + AC:2015

EN 62841-2-11:2016

EN 55014-1: 2017

EN 55014-2: 2015

EN 61000-3-2: 2014

EN 61000-3-3: 2013

EN 50581: 2012



#### Festool GmbH

Wertstr. 20, D-73240 Wendlingen **GERMANY** 

Wendlingen, 2020-01-22

Markus Stark Head of Product Development

i A Q Bounds

Ralf Brandt Head of Product Conformity

\* im definierten Seriennummer-Bereich (S-Nr.) von 40000000 -

in the specified serial number range (S-Nr.) from 40000000 -

dans la plage de numéro de série (S-Nr.) de 40000000 -49999999

#### Contents

1	Symbols	16
2	Safety warnings	16
3	Intended use	17
4	Technical data	18
5	Parts of the machine	18
6	Operation	18
7	Settings	19
8	Working with the electric power tool	20
9	Service and maintenance	21
10	Accessories	21
11	Environment	22
12	General information	23

#### 1 **Symbols**



Warning of general danger



Warning of electric shock



Read the operating instructions and safety instructions.



Wear a dust mask.



Wear ear protection.



Wear protective goggles.



Wear protective gloves.



Connecting the mains power cable



Disconnecting the mains power cable



Do not dispose of it with domestic waste.

 $\epsilon$ 

CE marking: Confirms the conformity of the power tool with the European Community directives.

UKCA marking: The United Kingdom Conformity Assessed symbol is a marking for products being placed on the market in the United Kingdom. It is a manufacturers indication that the product is in conformance with the relevant regulations in the UK.



Tip or advice

Handling instruction



Safety class II

#### 2 Safety warnings

#### 2.1 General power tool safety warnings



WARNING! Read all safety warnings, instructions, illustrations and specifica-

tions provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

#### Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### 2.2 Machine-specific safety notices

- Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the workpiece by hand or against your body leaves it unstable and may lead to loss of control.
- Festool electric power tools must only be installed on work tables provided by Festool for this purpose. If the tool is installed in another, or self-made, work table, it can become unstable and result in serious accidents.
- Wait until the power tool has come to a complete halt before placing it down. The insertion tool can get caught and lead to a loss of control of the power tool.
- Deformed or cracked saw blades and saw blades with blunt or broken cutting edges must not be used.
- The saw blade on the jigsaw must always be running when it makes contact with the workpiece.









Wear suitable personal protective equipment: Ear protection, protective goggles, dust mask for work that generates dust, protective gloves for working with rough materials and for changing tools.

 Harmful/poisonous dust may be produced when working (e.g. paint products containing lead and some types of wood).

Contact with or inhalation of this dust may pose a risk for the operating personnel or persons in the vicinity. Comply with the safety regulations that apply in your country. Connect the power tool to a suitable dust extractor.

- Always connect the machine to a dust extractor when performing work that generates dust.
- Check the plug and the cable regularly and should either become damaged, in order to avoid a hazard, have them replaced by an authorised after-sales service workshop.
- Stroboscopic light can cause epileptic seizures. Do not use this machine if you are susceptible to epileptic seizures.
- Do not look into the stroboscope light.
   Looking into the light source can damage your vision.
- Only for AS/NZS: The tool shall always be supplied via residual current device with a rated residual current of 30 mA or less.

#### 2.3 Metal processing

When processing metal, the following measures must be taken for safety reasons:

- Install an upstream residual-current circuit breaker (RCD, PRCD).
- Connect the machine to a suitable dust extractor
- Regularly remove dust deposits from the motor housing.
- Use a metal saw blade.
- Close the chip guard.



Wear protective goggles.

#### 2.4 Emission levels

The levels determined in accordance with EN 62841 are typically:

#### **PS 420 EBQ**

Sound pressure level  $L_{PA} = 87 \text{ dB(A)}$ Sound power level  $L_{WA} = 98 \text{ dB(A)}$ Uncertainty K = 5 dB

#### **PSB 420 EBQ**

Sound pressure level  $L_{PA} = 86 \text{ dB(A)}$ 

Sound power level  $L_{WA} = 97 \text{ dB(A)}$ Uncertainty K = 5 dB



#### **CAUTION**

# Noise generated when working Risk of damage to hearing

► Use ear protection.

Vibration emission level  $a_h$  (vector sum for three directions) and uncertainty K measured in accordance with EN 62841:

			PS 420 EBQ	PSB 420 EBQ
	Sawing wood	$a_h$	$8.0 \text{ m/s}^2$	$8.5 \text{ m/s}^2$
	Sawing metal	$a_h$	$6.5 \text{ m/s}^2$	$5.5 \text{ m/s}^2$
	Uncertainty	K	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>

The specified emission levels (vibration, noise)

- are used to compare machines.
- They are also used for making preliminary estimates regarding vibration and noise load during operation.
- They represent the primary applications of the power tool.



#### **CAUTION**

The emission values may deviate from the specified values. This is dependent on how the tool is used and the type of workpiece being machined.

- The actual load during the entire operating cycle must be evaluated.
- Depending on the actual load, suitable protective measures must be defined in order to protect the operator.

#### 3 Intended use

Jigsaws are designed for sawing wood and materials similar to wood. With the special saw blades offered by Festool, these machines can also be used for sawing plastic, steel, aluminium, non-ferrous metal and ceramic plates.



The user is liable for improper or non-intended use.

#### 4 Technical data

Jigsaws	PS 420 EBQ	PSB 420 EBQ
Power	550	) W
110 V version	400	) W
Stroke rate	1500–3800 rpm	1000-3800 rpm
Stroke length	26 r	nm
Pendulum stroke	4 set	tings
Max. inclination (only with accessory WT-PS 400 angle table)	45° to bo	oth sides
Max. cutting depth (depending on saw blade)	Wood	120 mm
	Aluminium	20 mm
	Steel	10 mm
Weight (without cable, with extractor connector) as per EPTA-Procedure 01:2014	1.9	kg

## 5 Parts of the machine

- [1-1] Chip guard
- [1-2] On/off switch
- [1-3] Gripping surfaces
- [1-4] Variable speed trigger (only PSB 420 EBQ)
- [1-5] Safety lock (only PSB 420 EBQ)
- [1-6] Adjusting wheel for stroke rate control
- [1-7] Swivel plug it connection (only PS 420 FBQ)
- [1-8] Mains power cable
- [1-9] Extractor connector
- [1-10] Saw table change lever
- [1-11] Saw blade ejection
- [1-12] Replaceable saw table
- [1-13] Pendulum stroke switch
- [1-14] Base runner
- [1-15] Chip ejection opening

The specified illustrations appear at the beginning of the Operating Instructions.

## 6 Operation

#### WARNING

## Unauthorised voltage or frequency. Risk of accidents

- The mains voltage and the frequency of the power source must correspond to the specifications on the name plate.
- ► In North America, only Festool machines with the voltage specifications 120 V/60 Hz may be used.

# 1

#### **CAUTION**

# Heating of the Plug it connection if bayonet fitting is not completely locked Risk of burns

► Before switching on the power tool, make sure that the bayonet fitting at the mains cable is closed fully and locked.

Connecting and detaching the mains power cable [1-8] see figure [2].

#### 6.1 Switching on/off

The power tool features a switch [1-2] on both sides to turn it on and off.

The PSB 420 EBQ also has a variable speed trigger [1-4] with a safety lock [1-5]. For continuous operation, use the button [1-2].

## **Settings**





#### **WARNING**

#### Risk of injury, electric shock

► Always disconnect the mains plug from the socket before performing any work on the machine.

#### 7.1 Changing tools





# Risk of injury from hot and sharp insertion

- Do not use any blunt or faulty insertion
- ► Wear protective gloves when handling an insertion tool.

#### Selecting the saw blade

Only use saw blades with a T-shank. The saw blade should not be longer than that required for the intended cut. To ensure safe guidance, during the cut the saw blade should emerge at the bottom of the workpiece at every point.

(i) Only use cross-set saw blades when using angle tables and base adapters. We recommend the S 105/4 FSG Festool saw blade.

Festool saw blades for jigsaws are colour-coded. The colour represents the material for which the saw blade is suited.

Colour	Material
Yellow	Wood
Red	Plastics
Green	Building materials
Blue	Metal

More information can be found on the packaging, in your Festool catalogue or at www.festool.co.uk.

#### Inserting the saw blade

Always disconnect the power tool from the power supply before changing blades.

- ► If necessary, lift up the chip guard [3-1].
- ► Slide the saw blade [3-4] into the opening [3-2] as far as the stop with its teeth in the cutting direction.

Turn the saw blade [3-4] clockwise by approx. 30° until it engages.

Check that the saw blade is secure. A loose saw blade can fall out and cause an injury.

(i) If the saw blade is very short, it is advisable to remove the saw table (see section 7.4) before inserting the saw blade.

#### Adjust the saw blade guide after every saw blade change

The saw blade guide was designed to improve guidance of the saw blade.

- Remove the saw table (see section 7.4).
- Tighten the screw [3-6] using the hex key [3-5] until the jaws are almost touching the saw blade.

#### NOTICE

#### Damage to the machine or saw blade

Do not tighten the screw [3-6] too much. It must be possible to move the saw blade slightly.

#### Ejecting the saw blade

- (i) When ejecting the saw blade, hold the power tool such that no persons or animals can be injured.
- ► Push the saw blade ejection [3-3] forwards as far as the stop.

Saw blade ist thrust out mechanically.

(i) A tool change is only possible when the tool holder is located in the upper position.

#### When changing the saw blade is not possible:

Let the jigsaw run at a high speed for 3-10 seconds. Actuate the saw blade ejection [3-3] again.

#### Using the chip guard

The chip quard [3-1] prevents chips from flying away and improves the efficiency of the chip extraction system.

 Apply slight pressure to push the chip quard [3-1] downwards.

#### Inserting the splinterguard 7.3

The splinterguard prevents the edges of the material from splintering during the cut, even at the end where the saw blade exits the mate-

Switch off the machine and slide the splinterguard [4-1] onto the guide [4-2] and up to the saw blade.

- ► Switch on the jigsaw.
- On a level surface, slide in the splinterguard (not using your hand!) while the machine is operating until it is flush with the front edge of the saw table (speed setting 5). This cuts into the splinterguard.
- i When it is worn, push the splinterguard approx. 3 mm further to the rear and continue using it.
- To guarantee reliable operation of the splinterguard, it must seal tightly on both sides of the saw blade. A new splinterguard should therefore be fitted after every saw blade change to guarantee splinter-free cuts.

#### 7.4 Changing the saw table

- ► Open the change lever [1-10].
- ► Remove the saw table downwards.
- (i) Assembly is performed in reverse sequence to removal. Ensure that the saw table is firmly seated in the guide.

Instead of the saw table, the WT-PS 400 angle table or ADT-PS 400 base adapter can be installed at the support.

Never saw without the saw table, or one of the other tables or adapters offered in the Festool accessories range.

#### 7.5 Extraction

# 1

#### WARNING

#### Health risk due to dust

- Always work with an extractor.
- Comply with national regulations.

The extraction adapter **[5-3]** allows jigsaws to be connected to a dust extractor (hose diameter 27 mm).

- ► Insert the extraction adapter in the rear opening of the saw table so that the hook [5-2] engages in the recess [5-1].
- ► To remove the extraction adapter, press the hook **[5-2]**.
- i Due to the low power consumption of the machine (low energy consumption), dust extractors with an automatic switch-on function will sometimes only start up when the actual cut is made.
- Set the dust extractor to continuous operation for special applications (e.g. low stroke rate, soft wood).

#### 7.6 Adjusting the pendulum stroke

The pendulum stroke on pendulum jigsaws can be adjusted to machine different materials with the correct rate of advance. Select the required setting using the pendulum stroke switch [1-13]:

Position 0 = pendulum stroke off
Position 3 = maximum pendulum stroke

Recommended pendulum stroke setting		
Hardwood, softwood, chipboard, wood fibreboard	1–3	
Blockboard, plywood, plastic	1–2	
Ceramics	0	
Aluminium, non-ferrous metals	0-2	
Steel	0-1	

#### 7.7 Stroke rate control

Using the adjusting wheel **[1-6]**, the stroke rate can be continuously adjusted between 1500 and 3800 rpm (PSB 420 EBQ: 1000–3800 rpm). This enables you to optimise the cutting speed to suit the respective material.

Automatic load detection is activated in position **A**: The stroke rate drops when idling and is adjusted to the highest setting when the workpiece is introduced.

# Recommended stroke rate (position of the adjusting wheel)

Hard and soft wood, blockboard, ply- wood, chipboard	А
Fibreboard	4-A
Plastic	3-A
Ceramic, aluminium, non-ferrous metals	3–5
Steel	2-4

## 8 Working with the electric power tool



#### **CAUTION**

Materials which produce a lot of dust Damage to the machine due to the ingress of dust, risk of injury

► Do not work overhead.

When working on small or thin workpieces, always use a stable base, or the CMS module (accessory).

When working, hold the electric power tool by the handle and guide it along the desired cutting line. For precise cuts and smooth running, use two hands to guide the electric power tool.

#### 8.1 Free saw guidance along a scribe mark

The triangular pointer on the splinterguard **[4-1]** indicates the cutting line of the saw blade. This facilitates sawing along a scribe mark.

#### 8.2 Lighting



#### **WARNING**

#### Stroboscopic light could lead to misjudgement of the saw blade position Risk of injury

► Ensure the work area is well illuminated.

A steady light or stroboscopic light is installed to illuminate the cutting line:

Up to approx. 2100 rpm: Steady light From approx. 2100 rpm upwards: Stroboscopic light

in the overhead position (+/- 45°), the lighting is switched off completely.

If required, you can adjust the lighting:

- Plug in the electric power tool.
- Press both buttons [1-2] simultaneously and hold for approx. 10 s until a beep sounds.
- ► Release both buttons [1-2].
- ► Press the left button (on the pendulum stroke side) the specified number of times to set the desired mode:

Mode	Indication dur- ing configura- tion	Behaviour during op- eration
1	Light flashes	With stroboscope (standard)
2	Light on	Steady light without stroboscope
3	Light off	Light switched off

Press the right button to save the setting.

## 9 Service and maintenance



#### **WARNING**

#### Risk of injury, electric shock

- Always pull the mains plug from the socket before performing any servicing and maintenance work.
- All maintenance and repair work which requires the motor housing to be opened should always be carried out by an authorised service workshop.



**Customer service and repairs** must only be carried out by the manufacturer or service workshops. Find the nearest address at:

www.festool.co.uk/service



Always use original Festool spare parts. Order no. at: www.festool.co.uk/service

#### 9.1 Observe the following information

- ► Check the guidance roller regularly for wear.
- Regularly remove dust deposits from the chip quard.
- Regularly clean the base runner to prevent scratches and cores on the surface.
- Damaged safety devices and components must be repaired or replaced in a recognised specialist workshop, unless otherwise indicated in the operating instructions.
- To ensure constant air circulation, always keep the cooling air openings in the motor housing clean and free of blockages.
- ► Keep the contacts on the power tool, charger and battery pack clean.

#### 9.2 Cleaning the chip ejection opening

Clean the chip ejection opening [1-15] regularly to prevent blockages:

- Remove the chip quard.
- Use a brush or vacuum cleaner to clean the chip ejection opening.
- Reinsert the chip quard.

#### 10 Accessories

The order numbers of the accessories and tools can be found in the Festool catalogue or on the Internet at "www.festool.com".

#### 10.1 Saw blades, other accessories

In order to saw different materials quickly and cleanly, Festool offers saw blades for all appli-

cations that are specially designed for your Festool jigsaw.

#### 10.2 Sawing with special base runners

The special base runners protect high-quality surfaces against scratches and scores.

- Press in the base runner at position [6-1].
- ► At the same time, push the base runner forwards.
- Mount another base runner and push it to the rear until it engages.

#### 10.3 Sawing with the angle table

The WT-PS 400 angle table is used for cutting pipes or interior and exterior angles up to 45°.

Dust extraction is not possible when sawing with the angle table!

#### Installing the angle table

- ► Remove the saw table [1-12] (see section 7.4).
- Position the angle table against the saw base support.
- ► Close the lever [1-10].

Ensure that the angle table is firmly seated in the guide.

#### Setting the angle

► Turn the adjusting wheel [7-1] to select the required angle.

You can select the angles -45°, 0° and +45° on the scale [7-2].



#### WARNING

## Sawing cutting depths Risk of injury

- ► Select the saw blade length and cutting depth so that the saw blade remains plunged in the workpiece.
- (i) For 0° cuts, we recommend setting the angle table to a small negative angle to guarantee smooth operation.

#### 10.4 Sawing with the base adapter

The ADT-PS 400 base adapter is used for attaching your jigsaw to the Festool guide rail and the KS-PS 400 core maker.

With guide rail and core maker: Observe the max. material thickness of 20 mm and only use cross-set saw blades (FSG).

#### Installing the base adapter

► Remove the saw table [1-12] (see section 7.4).

- ► Position the base adapter [8-1] against the saw table support.
- ► Close the lever [1-10].

Ensure that the base adapter is firmly seated in the guide.

(i) Also use the extractor connector [1-9] with the base adapter.

#### Adaptation to the FS 2 guide rail

The FS 2 Festool guide system (Fig. [9]) makes it much easier to produce straight and precise cuts.

► Place the jigsaw with attached base adapter [8-1] on the guide rail.

#### Adaptation to the core maker

The core maker can be used to create circular cuts with a diameter between 120 and 3000 mm. The core maker can be installed from both sides on the base adapter.

- ► Place the jigsaw with attached base adapter on the adapter [10-1] on the core maker.
- ► Insert the centring mandrel [10-2] in the hole [10-4] on the core maker aligned with the saw blade.
- ► Clamp the measuring tape to the core maker using the rotary knob [10-5].

Recommended settings when using the core maker:

- Cut in an anticlockwise direction.
- Work at a slow rate of advance.
- ► Set the pendulum stroke [1-13] to 0-1.
- ► Set the stroke rate [1-6] to 1-5.
- (i) Store the centring mandrel in the depot [10-3].

#### Semi-stationary sawing with the Festool CMS system

When combined with the Festool CMS system, the jigsaw becomes a semi-stationary bench saw for profiled cuts. See the CMS brochure for more information.

Install your jigsaw with base adapter in the CMS as described in the operating manual for the CMS-PS.

#### 11 **Environment**



Do not dispose of the device in the household waste! Recycle devices, accessories and packaging. Observe applicable national regulations.

**EU only:** In accordance with the European Directive on waste electrical and electronic

equipment and implementation in national law, used power tools must be collected separately and handed in for environmentally friendly recycling.

Information on REACH: www.festool.com/reach

## 12 General information

## Imported into the UK by

Festool UK Ltd 1 Anglo Saxon Way Bury St Edmunds IP30 9XH Great Britain