ELEKTRA BECKUM®

(D) **Betriebsanleitung**
Formatkreissäge

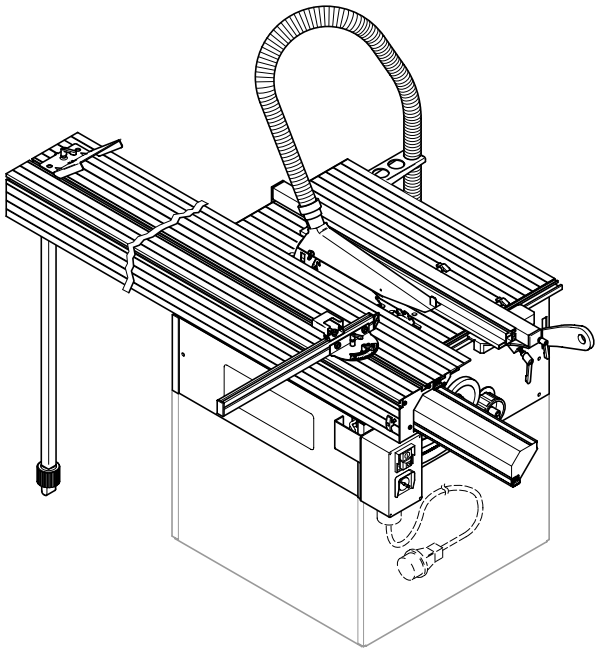
(GB) **Operating Instruction**
Panel sizing saw

(F) **Instructions d'utilisation**
Scie circulaire de format

English only

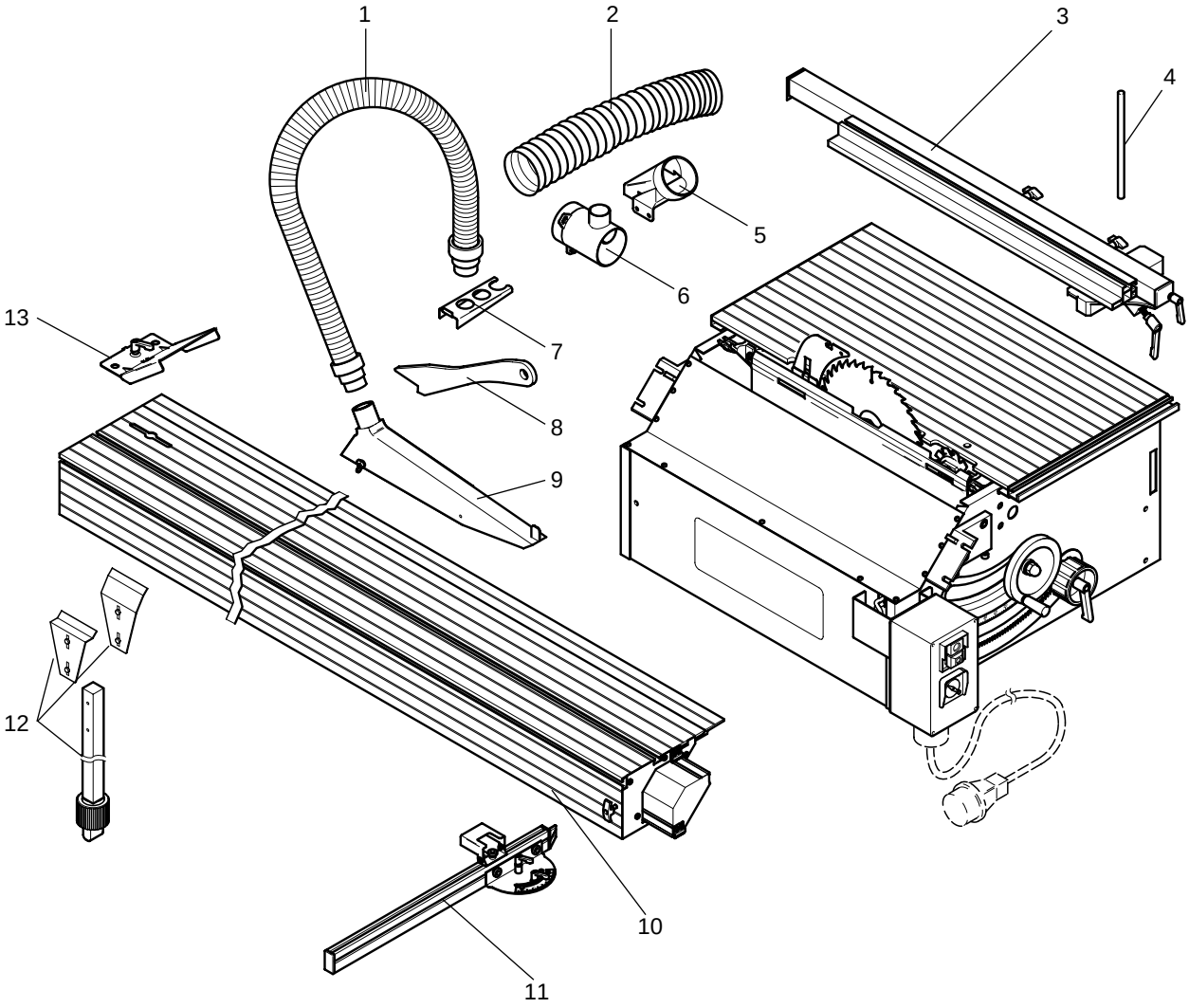
ProfiLine

PKF 255 V8



D	**Deutschland**	Die beiliegende Garantiekarte senden Sie bitte an uns zurück. Den Kaufbeleg bitte aufbewahren! Ein Anspruch auf Garantieleistungen besteht nur gegen Vorlage des Kaufbelegs. Die Adresse Ihrer nächstgelegenen Werksvertretung finden Sie auf der hinteren Umschlagseite.	**1.**
GB	**Great Britain**	Please return the enclosed warranty card to us. Retain proof of purchase! You are only entitled to claim warranty against proof of purchase. Please see back cover for manufacturer representative´s address nearest you.	**2.**
F	**France**	SVP, retournez-nous la carte de garantie jointe. Conservez le reçu d'achat! La garantie ne peut être accordée que sur présentation de ce reçu. Vous trouverez l'adresse de votre représentant le plus proche à la dernière page de couverture.	**3.**

Scope of delivery



Carton 1 – Panel sizing saw with accessories:

1 Suction hose for blade guard

2 Suction hose for chip case

3 Rip fence with auxiliary fence extrusion

4 Lock bar

5 Connector suction hose / chip case

6 Connector for suction hoses

7 Hose carrier for suction hose / blade guard

8 Push stick / feeding aid

9 Blade guard

hardware bag

Carton 2 – Travelling sizing table with accessories:

10 Travelling sizing table

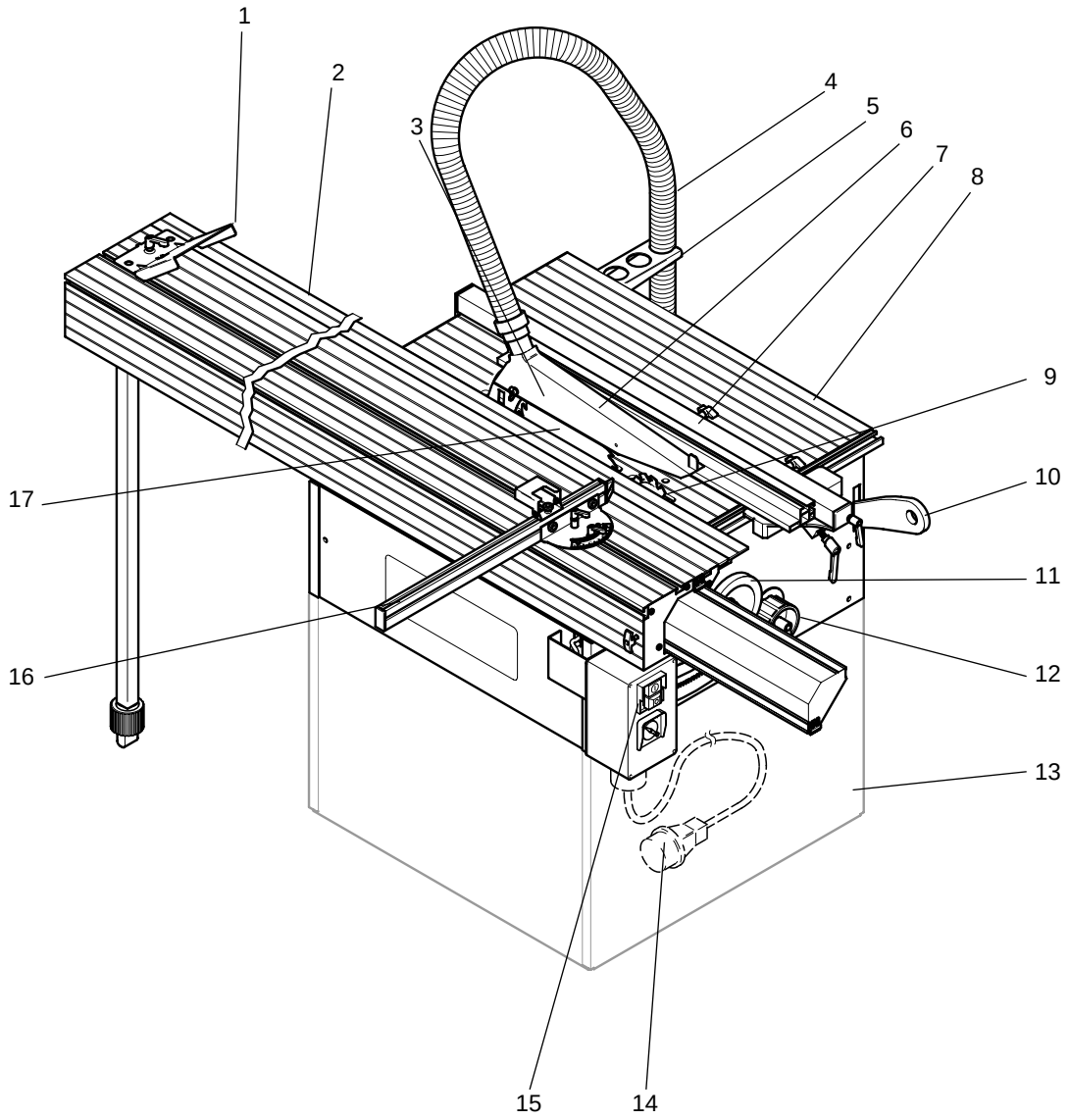
11 Mitre fence (knock-down) with flip stop

12 Foot with add-on pieces
(only for travelling sizing table 1800 mm)

13 Hold-down plate

hardware bag

Saw components and controls



1 Hold-down plate

2 Travelling sizing table (1800 mm shown)

3 Riving knife

4 Suction hose for blade guard

5 Hose carrier for suction hose / blade guard

6 Blade guard

7 Rip fence with auxiliary fence extrusion

8 Saw table

9 Scribing blade

10 Push stick

11 Handwheel for depth of cut setting

12 Handwheel with lock lever for blade tilt setting

13 Workstand (optional accessory)

14 Mains connection

15 On/off switch with emergency stop

16 Mitre fence

17 Main saw blade

Please read first!

- Read these instructions before commissioning. Pay special attention to the safety information.
- If you notice a transport damage while unpacking, notify your supplier immediately. **Do not** operate the machine!
- Dispose of the packing environmentally friendly. Bring to a proper collecting point.
- Keep these instructions for reference on any issues you may be uncertain about.
- If you lend or sell this machine be sure to have the instructions to go with it.

Safety information

Specified conditions of use

This machine is intended for ripping and crosscutting of solid timber, faced board, particle board, wood-core plywood and similar wood-derived materials.
Do not cut round stock without a suitable fixture, as the rotating saw blade could turn the workpiece.

Any other use is considered to be not as specified and not allowed. Damages caused by unspecified use are not covered by the manufacturer's liability.

Modification of the machine or use of parts not tested and approved by the equipment manufacturer can cause unforeseeable damage.

General safety information

Follow the basic safety requirements for the operation of power tools, to keep the risk of

- personal injury
- fire
- electric shock

as little as possible.

Please note in particular:

A circular saw is a dangerous tool which can, due to operator carelessness, cause serious personal injury. It is therefore recommended you follow the safety information given below, and know and follow the legal regulations pertaining to the operation of circular saws.

Danger!
The circular saw shall only be started and operated by persons familiar with circular saws, and who are at any time aware of the dangers associated with the operation of such tool.
Persons under 16 years of age shall use this saw only under the supervision of an instructor in the course of their vocational training.

The following residual risks do principally exist with circular saws, and can not, even by employing safety devices, completely eliminated:

- Risk of injury by touching the revolving saw blade: Keep sufficient distance to the saw blade when sawing. Use push stick if necessary.
  Prevent adverse body positions. Ensure firm footing, and keep your balance at all times.
- Risk of injury by touching the saw blade at standstill: Lower the saw blade after sawing until the blade guards rest on the table. Wear gloves when changing blades.
- Hazard by cluttered work area (e.g. by cutoffs on the floor):
  Always keep work area clean.
- Risk of injury by objects being caught during sawing by the revolving saw blade (e.g. tools on the saw table or metal parts hidden in the workpiece):
  Keep saw table clean. If in doubt check workpiece for inclusion of foreign matter.
- Risk of kickback (workpiece is caught by the saw blade and thrown against the operator):
  Always work with a properly set riving knife. Keep blade sharp and do not jam.
- Hazard generated by environmental influences:
  Do not operate the circular saw in rain or in damp environment. Ensure sufficient lighting. Do not operate the circular saw near inflammable liquids or gases.
- Danger to other persons in the work area:
  Keep bystanders, particularly children, out of the danger zone.
- Hazard generated by overloading:
  Use circular saw within its limits, and only as specified.
- Danger by machine faults:
  Check the circular saw for damage before every use. Before switching ON check to see that keys or setting tools are removed. Do not operate the saw with a damaged ON/OFF switch. Keep knobs and handles free of oil and grease.

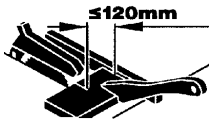
Symbols shown on the machine

Danger!
Disregard of the following warnings can lead to severe personal injury or material damage.

Read instructions.

Do not reach into the revolving saw blade.

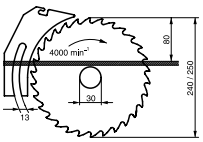
Wear hearing protection.



Use push stick if distance between saw blade and rip fence is ≤ 120 mm.

Cut round stock only with a suitable holding device.

Use table extension, if otherwise workpiece would fall off the table after cutting.



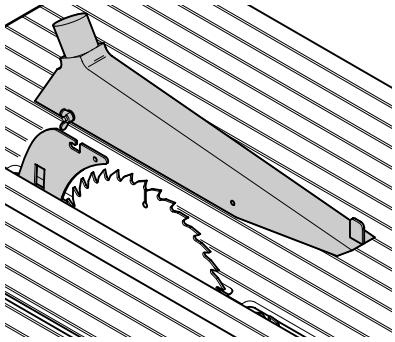
Max. saw blade Ø	250 mm
Saw blade arbor bore Ø	30 mm
Max. blade speed	4000 min^{-1}
Max. depth of cut	80 mm

Safety devices

Riving knife

The riving knife prevents the workpiece from being caught by the rising teeth of the saw blade and being thrown against the operator.

Always have riving knife installed during operation.



Blade guard

The blade guard protects against accidental contact with the blade and keeps chips from flying about.

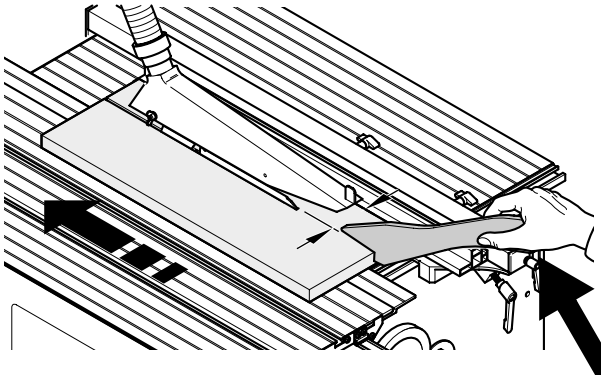
Always have blade guard installed during operation.

Push stick

The push stick serves as an extension of the right hand and protects against accidental contact with the saw blade.

Always use push stick if distance
rip fence saw blade is ≤ 120 mm.

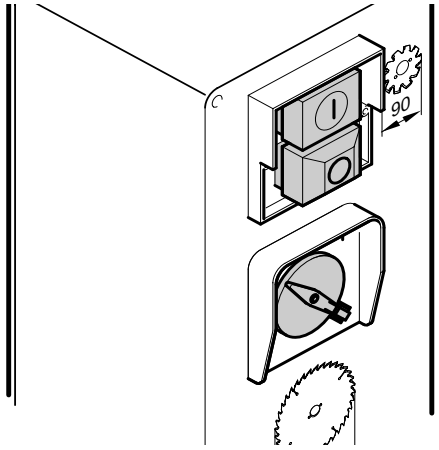
In order for the push stick to be always at hand, it can be stored in a sheath in the machine's housing (arrow).



Operating controls

On/off switch with motor protection

- To start main saw blade
  = set rotary switch to ON.
- To start scribing blade= push green button.
- To stop everything
  = set rotary switch to OFF or hit red button.

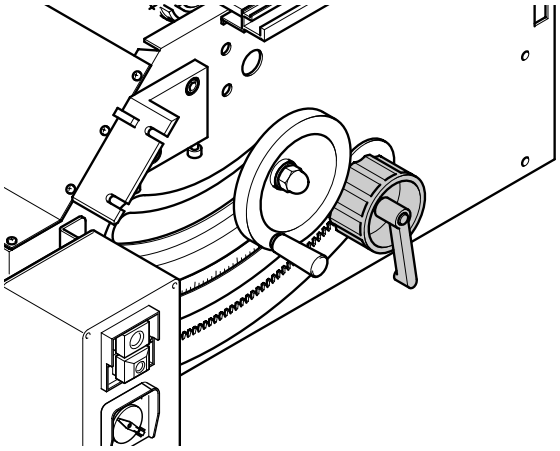


A motor protection switch is built into the switch enclosure, to switch the motor off in the event of an overload.
An undervoltage relay trips in the event of a voltage failure, to prevent a restarting of the saw when the power is restored.
To start the saw again after a power failure the on/off switch has to be set to ON.

Handwheel for blade tilt setting

The saw blade can be tilted steplessly between 0° and 45°.

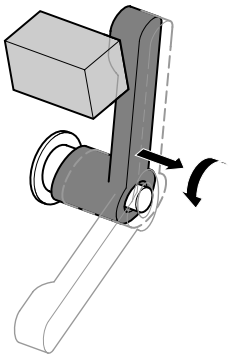
The centre of motion is at saw table level, so the depth of cut remains the same, regardless of the bevel angle.



Ratchet lock lever

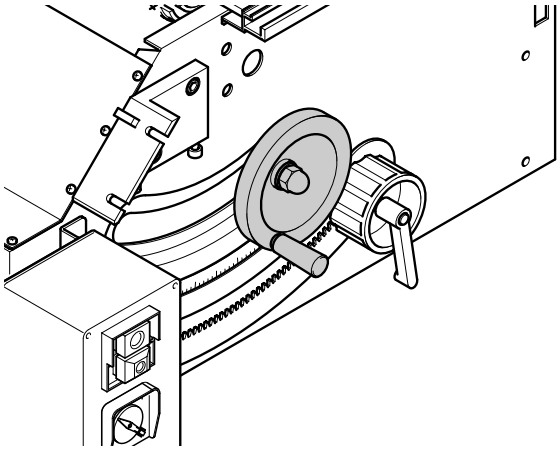
The set bevel angle can be locked with a ratchet lock lever, so it does not change during sawing.

There are several ratchet lock levers on the saw. If the swivelling range is not sufficient, the lever position can be shifted:
pull lever up, turn and let engage again.



Handwheel for setting the depth of cut

The depth of cut can be adjusted by turning the handwheel.

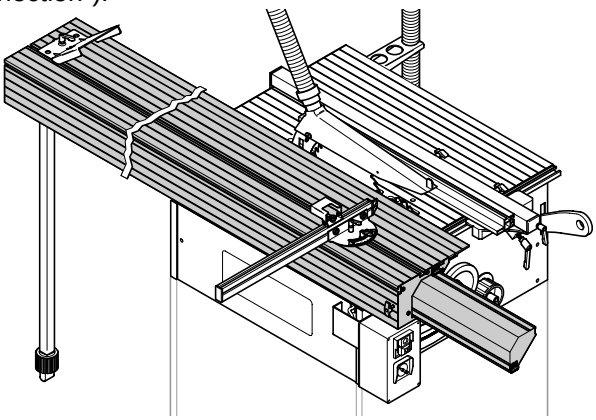


To compensate for possible play in the blade height setting mechanism, always raise the blade to the desired position.

Travelling sizing table

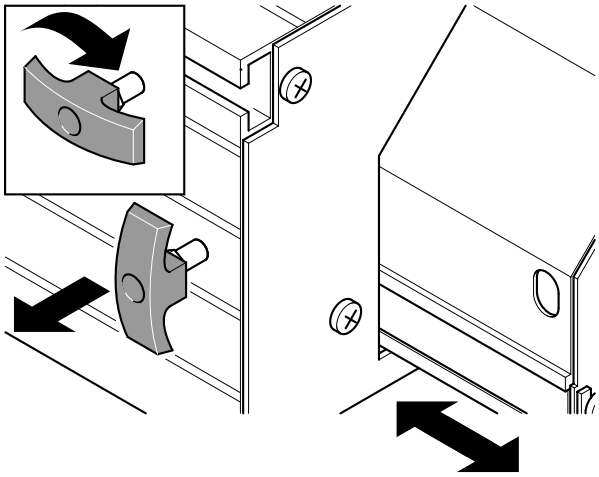
The travelling sizing table provides for exact workpiece guiding during the cutting operation.
Travelling sizing tables are available in 950 mm and 1800 mm length.

The travelling sizing table is mounted on the saw to the left of the saw blade (see „Assembly and connection").



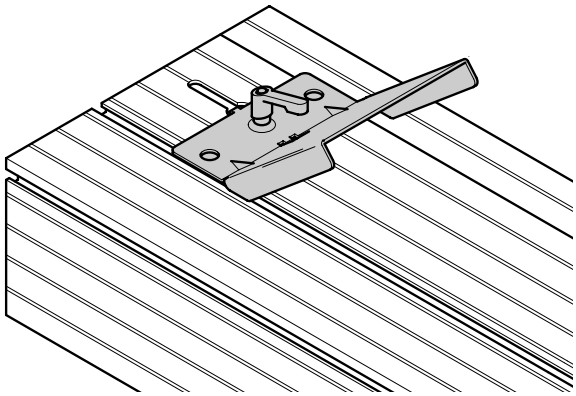
- To move the travelling sizing table pull travel lock lever and turn by 90˚.

- To lock, return travelling sizing table to its rest position, then turn travel lock lever by 90° and let engage in borehole.



Hold-down plate

The hold-down plate is fitted into the fitting hole provided on the travelling sizing table.
The hold-down plate firmly holds long stock on the travelling sizing table during cutting. This is especially useful for trimming cuts.



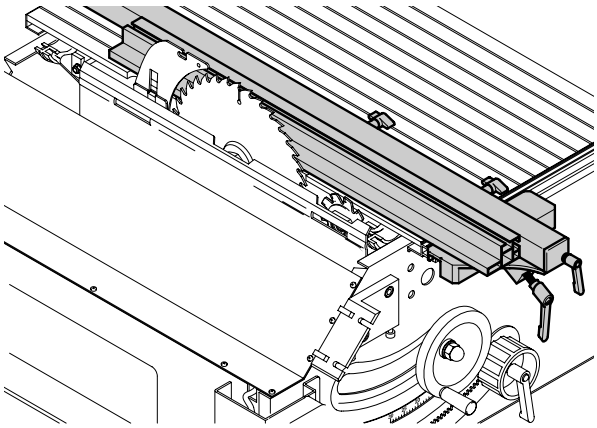
Rip fence

The rip fence slides onto the saw from the right-hand side and locks on the saw's front.

For locking always tighten the lower lock lever, to prevent jamming.

The auxiliary fence extrusion can be repositioned after loosening the two wing nuts:

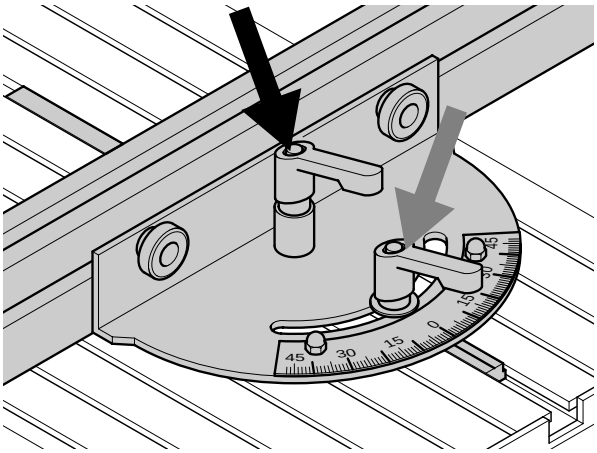
- small edge (as shown):
  - for cutting thin stock;
  - when the saw blade is tilted.
- wide edge:
  - for cutting thick stock (max. 65 mm).



Mitre fence

The mitre fence is pushed into the groove of the travelling sizing table and locked in position with the lock lever (black arrow).

For mitre cuts the fence extrusion turns through 45° in both directions. To set a mitre angle loosen lock lever (grey arrow).



Assembly and connection

Connection to dust collector

Danger!
Some kinds of wooden dust (e.g. from oak and ash) can be carcinogenic when inhaled. When working indoors always connect to a suitable dust collector (air speed at suction port of saw ≥ 20 m/s).

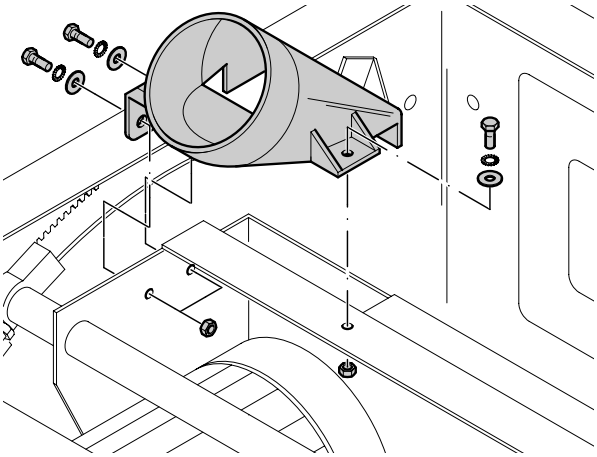
Caution! Operation without a dust collector is only possible
- outdoors;
- for a short duration (up to max. 30 minutes);
- with a dust mask.

If no dust collector is connected saw dust and chips build up inside the chip case. These need to be removed after latest 30 minutes of operation.

Dust collection ports are provided on the saw blade guard and the chip case.

Suction hose for chip case

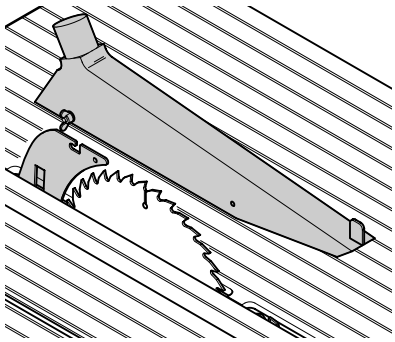
1. Turn saw upside down.
2. Remove transport support inside the saw housing.
3. Attach suction port to chipcase with
   - 3 ea. hex. head screw M 6x13
   - 3 ea. washer
   - 3 ea. serrated lock washer
   - 3 ea. hexagon nut M 6



4. Attach the 100 mm diameter suction hose and secure in place with the hose clamp supplied.

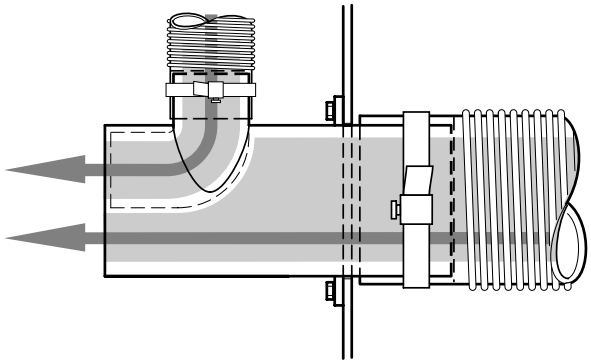
Suction hose for blade guard

1. Fit blade guard to riving knife.
   The lower edge of the blade guard should be in a horizontal position.



2. Attach the small diameter suction hose to the blade guard.
3. Hook hose carrier into horizontal slot of the saw housing's right-hand side panel.
4. Attach small diameter suction hose to hose carrier.
5. Attach the ends of both suction hoses to the suction connector.

Caution! The opening for the small suction hose inside the suction connector must face away from the saw.



6. Install suction connector near the saw.
7. Connect a suitable dust collector to the suction connector.

Workstand

This saw needs to be mounted on a sturdy workstand.

Within the workstand sufficient space for the suction hose must be available.

Installation of the travelling sizing table

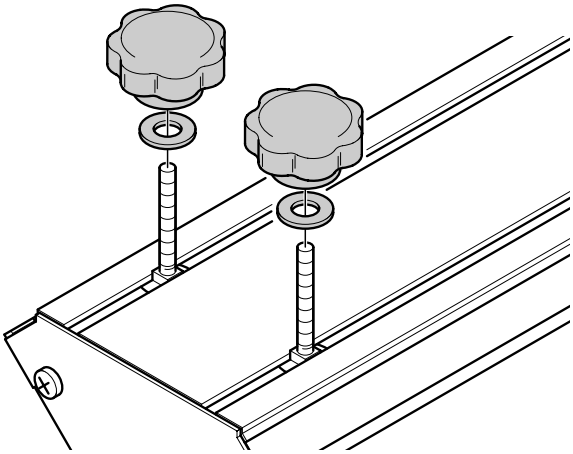
The travelling sizing table is available in two lengths:

- 950 mm table length
  (with four long screws for installation to the saw)
- 1800 mm table length
  (with eight screws: four long ones for fitting to the saw, and four short ones for attaching the support leg).

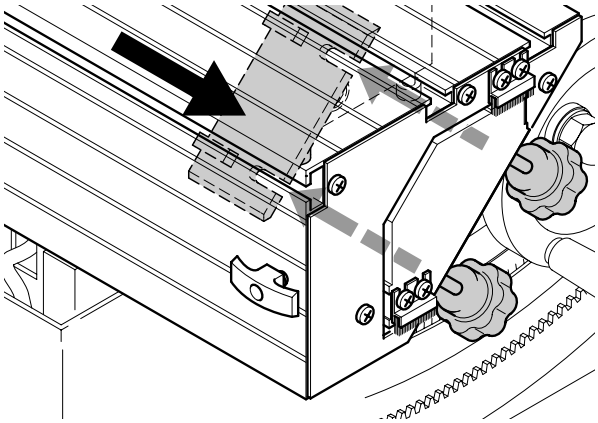
For installation of the travelling sizing table two persons are necessary.

1. Place travelling sizing table on a level surface, with the threaded ends of the screws showing upwards.

2. Screw a plastic butterfly nut with a washer a few turns on each of the long screws.

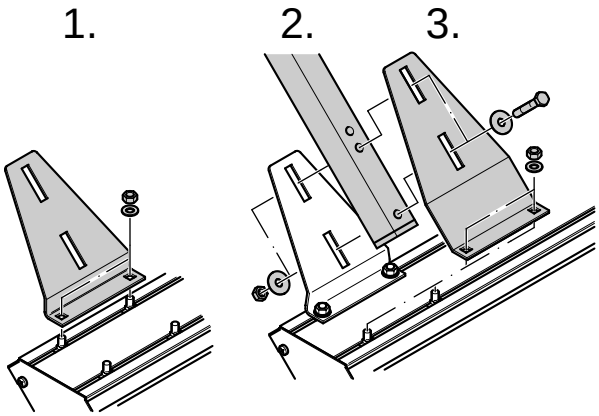


3. Adjust the position of the screws with attached butterfly nuts so that they are at a distance slightly larger than the length of the saw.
4. Turn travelling sizing table over with the help of another person and place it on the two angle brackets (black arrows) of the saw.
   Do not yet release the travelling sizing table !

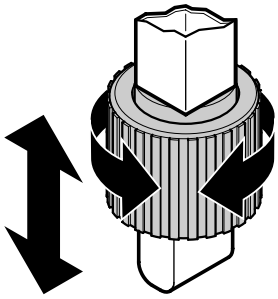


5. Slide butterfly nuts towards the saw, into the slots of the angle brackets (the washers must be between angle bracket and butterfly nut).
6. Adjust travelling sizing table position:
   – travelling sizing table 950 fully to the saw's front;
   – travelling sizing table 1800 only so much, that it projects between 500 mm and 800 mm over the saw's front.
7. Tighten butterfly nuts.

8. Attach support leg to underside of travelling sizing table 1800.

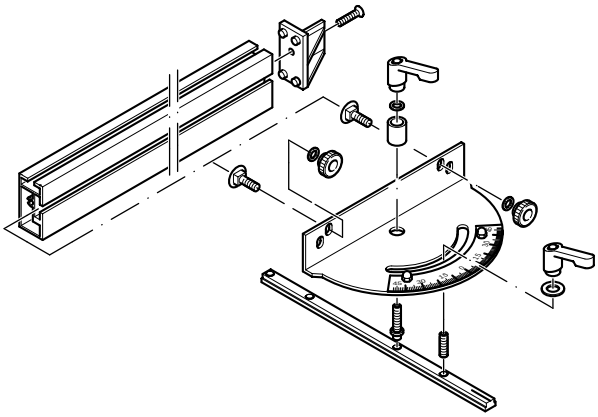


Adjust height of the support leg with its adjustable foot.



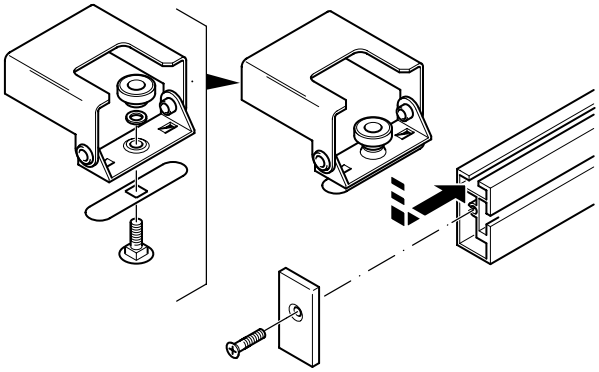
Mitre fence

1. Screw long stud screw into centre tapped hole of the guide bar and tighten.



2. Screw short stud screw into tapped hole of the guide bar.
3. Place angle plate on stud screws (short stud screw into oblong hole).
4. Fit spacer bushing and washer to long stud screw and screw on the ratchet lock lever.
5. Put large washer on short stud screw and screw on ratchet lock lever.
6. Fit two cup square neck screws into the fence extrusion's groove and put the screw's threaded ends though the oblong holes.

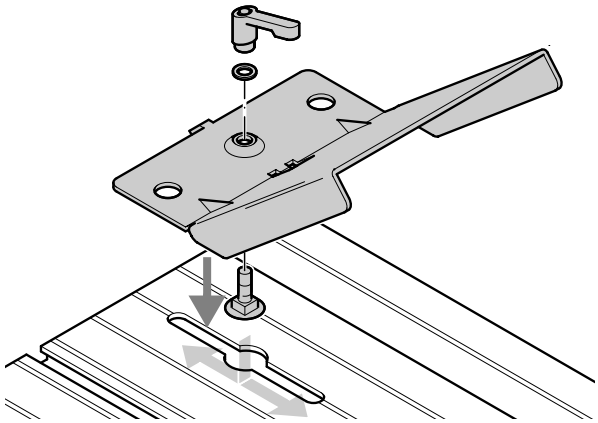
7. Fit a washer to each of the screws and screw on a knurled nut
8. Fit a cup square neck screw into the upper groove of the fence extrusion and attach the flip stop as illustrated.



9. Screw extrusion end plates to fence extrusion as illustrated.

Hold-down plate

The hold-down plate is pushed into the fitting hole of the travelling sizing table.



1. Fit a cup square neck screw from below into the hold-down plate's centre hole.
2. Fit a washer and the ratchet lock lever to the screw from the topside.
3. Push the cup square neck screw's head into the fitting hole of the travelling sizing table and secure in place by tightening the ratchet lock lever.

Mains connection

Danger! Electrical Hazard

Operate saw in dry environment only.

Operate saw only on a power source matching the following requirements (see also "Technical specifications"):

- Fuse protection by a residual current operated device (RCD) of 30 mA sensitivity;
- Outlets properly grounded;
- Outlets for 3-phase circuits with neutral lead.

Position power supply cable so it does not interfere with the work and is not damaged.

Protect power supply cable from heat, aggressive liquids and sharp edges.

Use only rubber-jacketed cable of sufficient lead cross-section.

Do not pull on power supply cable to unplug.

Change of direction of rotation! (only for machines with three-phase motor)

Depending on phase sequence it is possible that the saw blade turns in the wrong direction. This can lead to the workpiece being thrown about when attempting to make a cut. Always check direction of rotation after every connection to another outlet or circuit.**With a wrong direction of rotation the phase inverter on the power supply cable's plug must be set:**

1. After the saw is assembled, with all guards and safety devices operational, connect it to the power supply.
2. Raise saw blade fully.
3. Start saw and switch off immediately.
4. Watch the blade's direction of rotation from the left-hand side of the saw. **It must turn clockwise.**
5. If the blade turns counter-clockwise, disconnect power supply cable from the saws combination switch/plug.
6. With a flat bit screwdriver push the plug's phase inverter in and turn by 180°.

Caution! Do not turn the phase inverter by the contact pins!

Operation

- Check the following for proper operation before starting work:
  - emergency stop switch;
  - riving knife;
  - blade guard;
  - push stick.
- Use personal protection gear:
  - dust respirator;
  - hearing protection;
  - safety glasses.
- Assume proper work position:
  - in front of the saw on the infeed side;
  - frontal to the saw;
  - to the left of the line of cut.
  - If working with two persons the second person should stand at a rear table extension.
- Use if required for the type of work:
  - rear table extension (accessory) if working with two persons, or if otherwise workpiece would fall off the saw table;
  - dust extraction kit (accessory);

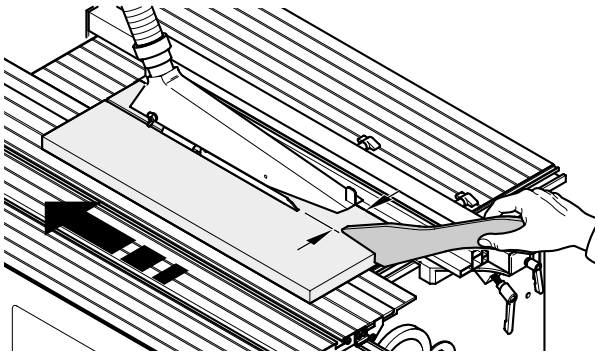
Danger!
Replace dull blades without delay. Risk of kickback if a dull tooth gets caught in the workpiece's surface.
- Do not stop the saw blade by exerting lateral pressure against it. Risk of kickback.
- Always push the workpiece down on the saw table, do not jam. Risk of kickback.

Dress code!
Do not wear loose clothing, jewellery or gloves that can get caught in moving parts. Confine long hair with hairnet.

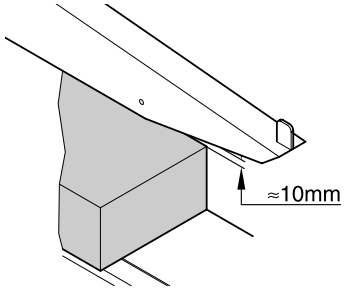
Rip cuts with rip fence

1. Lock rip fence in required position on saw table.

Danger!
Use push stick if distance between rip fence and saw blade is less than 120 mm.



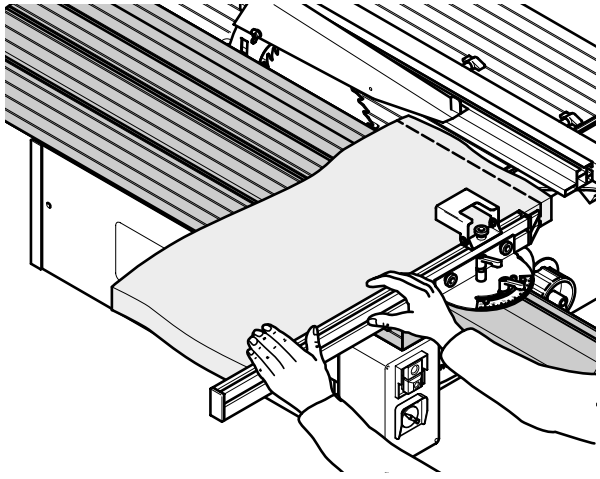
2. Reposition auxiliary fence extrusion if necessary:
   - Low edge (as shown) = for sawing thin stock; and with a tilted saw blade.
   - High edge = for cutting thick stock (max. 65 mm)
3. Set depth of cut.The blade guard should be set to approx. 10 mm above the workpiece.



4. Set blade tilt and lock in position.
5. Start main saw blade (rotary switch to ON).
6. Cut workpiece in a single pass.
7. Switch machine off if no further cutting is to be done immediately afterwards.

Dimensioning with the travelling sizing table

With the travelling sizing table large workpieces are exactly guided while being cut.



1. Insert mitre fence into groove of travelling sizing table and lock it.
2. If necessary, set mitre fence to required mitre angle and lock in position.

Caution! Position fence extrusion so its edge is between 5-10 mm away from the line of cut.

3. Unlock the travelling sizing table's travel lock.

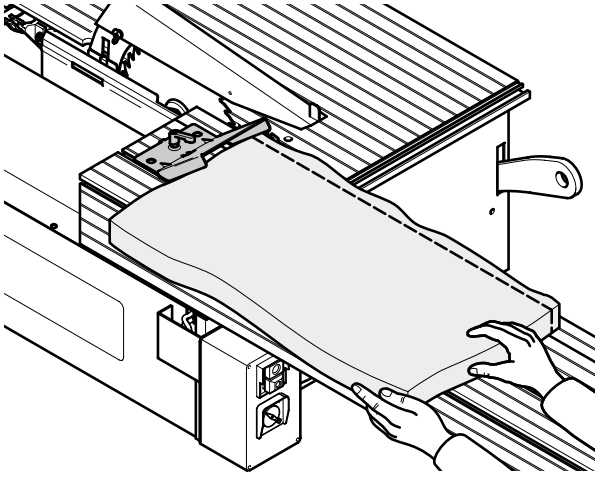
4. Set depth of cut. The blade guard should be approx. 10 mm above the workpiece.
5. Set saw blade tilt and lock in position.
6. Start main saw blade (rotary switch to ON).
7. Place workpiece against fence extrusion and hold it firmly.

If you want to cut several workpieces to the same length, use the flip stop. The workpieces are placed with their left edge against the flip stop.

8. Push travelling sizing table forward to cut workpiece in a single pass.
9. Switch machine off if no further cutting is to be done immediately afterwards.

Trimming with the hold-down plate

The hold-down plate firmly holds long stock on the travelling sizing table for cutting. This way a clean and straight cut is possible without mitre or parallel fence. This is especially useful for trimming cuts.

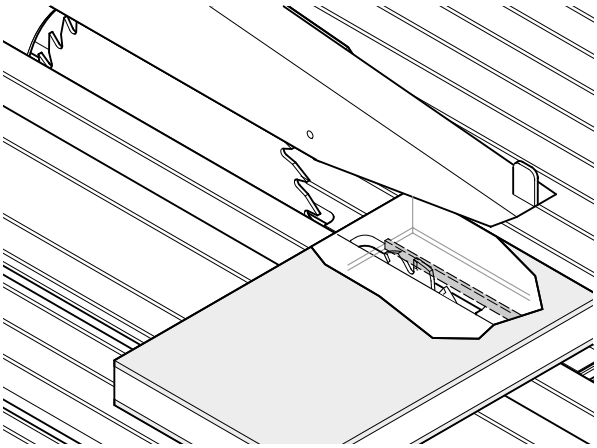


Danger!
Do not cut stock of less than 120 mm in width without mitre or parallel fence! Otherwise there is no sufficient distance between the saw blade and the hand.

1. Slide hold-down plate from the rear into the groove of the travelling sizing table and tighten.
2. Set depth of cut. The blade guard should be set to approx. 10 mm above the workpiece.
3. Set saw blade tilt and lock in position.
4. Unlock travelling sizing table travel lock and pull travelling sizing table towards you.
5. Place workpiece on travelling sizing table and push it against the hold-down plate.
6. Start main saw blade (rotary switch to ON).
7. Push travelling sizing table forward to cut workpiece in a single pass.
8. Switch machine off if no further cutting is to be done immediately afterwards.

Dimensioning with the scribing blade

With the scribing blade veneered or faced sheets are dimensioned without edge chipping.



The scribing blade must be exactly aligned with the main blade.
For more information on scribing blade setting see „Care and maintenance“

1. Set depth of cut of the main blade. The blade guard should be set to approx. 10 mm above the workpiece.
2. Set blade tilt and lock in position.
3. Start main saw blade (rotary switch to ON).
4. Start scribing blade (press green button).
5. Cut workpiece in a single pass.
6. Switch machine off if no further cutting is to be done immediately afterwards.

Care and maintenance

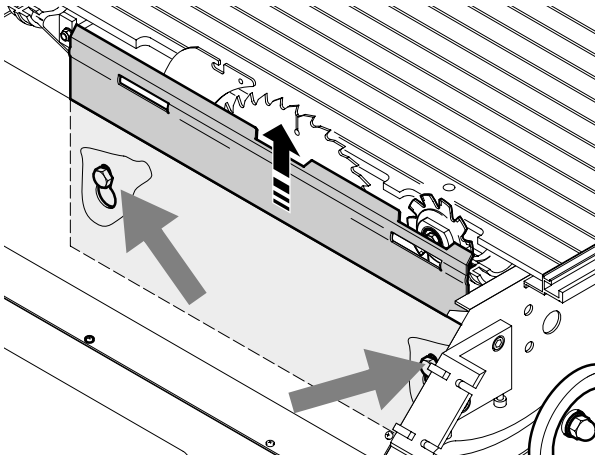
Danger!
Prior to all servicing:
- Switch machine OFF.
- Unplug power cable.
- Wait until the saw has come to a complete stop.

- Check that all safety devices are operational again after each service.
- Replace defective parts, especially of safety devices, only with genuine replacement parts. Parts not tested and approved by the equipment maker can cause unforeseen damage.
- Repair and maintenance work other than described in this section shall only be carried out by qualified specialists.

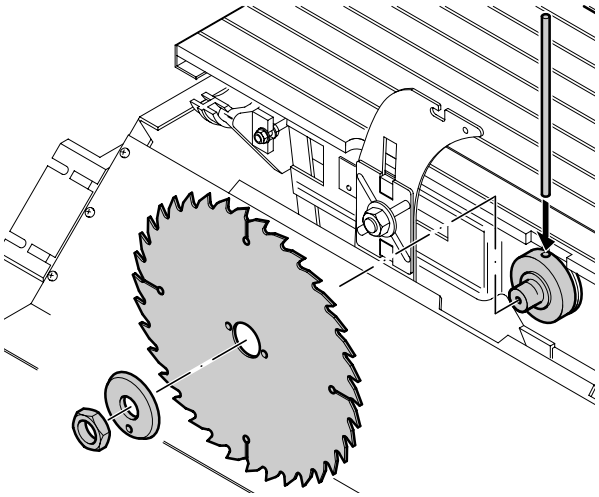
Main saw blade change

Danger!
Risk of injury by the saw blade's teeth. Wear gloves when changing blades.

1. Remove travelling sizing table.
2. Raise saw blade fully.
3. Remove blade guard.
4. Loosen screws on chip case cover. Lift chip case cover slightly and swing over the screws. The cover is hooked into the bottom of the chip case and can not fall down.



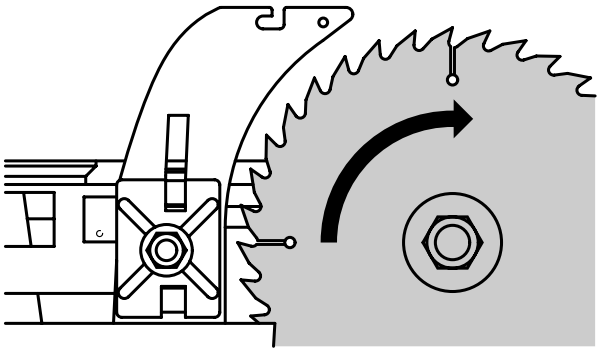
5. To block the saw blade insert lock bar into hole in the saw table and turn saw blade by hand until lock bar engages in saw spindle hole.



6. Loosen saw blade spindle arbor nut with spanner (L.H. thread!).
7. Take outer blade collar and saw blade off the saw spindle.
8. Clean clamping surfaces of saw spindle and saw blade.

Danger!
Do not use cleaning agents (e.g. for removing resin residue) that could corrode the light metal components of the saw; the stability of the saw would be adversely affected.

9. Put on a fresh saw blade (observe direction of rotation). The saw spindle's driving pin must fit into one of the saw blade's two pin holes.



Danger!
Use only suitable saw blades (see „Technical specifications") – when using unsuitable or damaged blades parts could be explosive-like hurled from it by the centrifugal force.

Do not use:

- saw blades made of high speed steel (HSS);
- saw blades with visible damage;
- cut-off wheel blades.

Danger!

- Mount saw blade only using genuine parts.
- Do not use loose-fitting reducing rings; the saw blade could work loose.
- Saw blades have to be mounted in such way that they do not wobble or run out of balance, and can not work loose during operation.

10. Slide outer blade collar onto saw spindle. The saw spindle's driving pin must fit into the pin hole of the outer blade collar.
11. Screw arbor nut, with the low side facing the blade, onto the saw spindle (L.H. thread!). Tighten **fingertight** only with the tool supplied.

Danger!

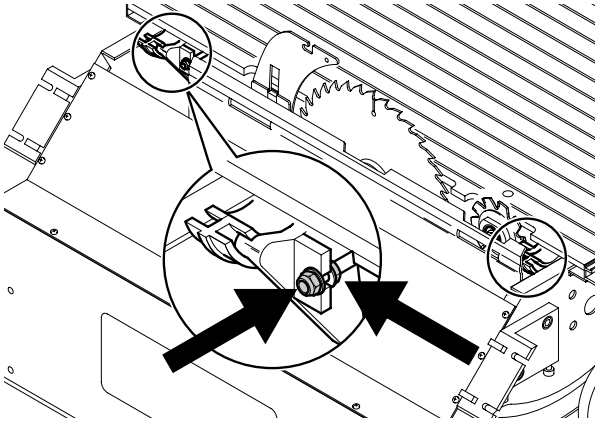
- Do not extent the arbor nut wrench.
- Do not tighten arbor nut by tapping on the wrench.
- **After tightening the arbor nut do not forget to remove the saw spindle lock bar!**

12. Slide chip case cover back into the closed position and tighten screws.
13. Reinstall the travelling sizing table.

Main saw blade adjustment

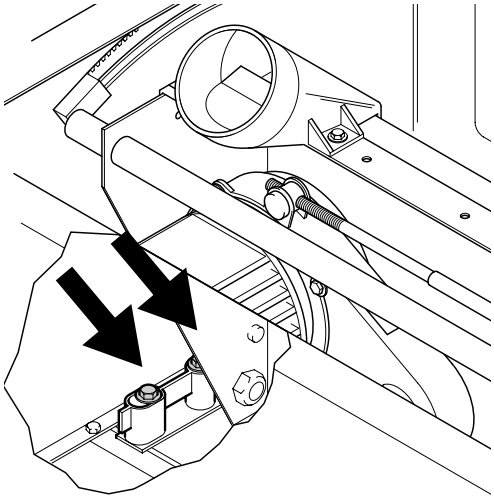
The saw blade must run exactly parallel with the saw table's edge. The distance between the table's edge and the blade shall be not more than 3 mm. Adjustment is done from the top with setting nuts. This setting is then fixed by two counter nuts on the underside of the saw:

1. Remove travelling sizing table.
2. Loosen screws on chip case cover. Lift chip case cover slightly and swing over the screws. The cover is hooked into the bottom of the chip case and can not fall down.
3. Tighten two each setting nuts on the swivel segments against each other.



The swivel segments' setting nuts **must not be tightened during operation of the saw**, as this would create mechanical twisting and warping.

4. Turn saw over and place on its saw table.
5. Loosen the two nuts inside the saw by approx. one turn.

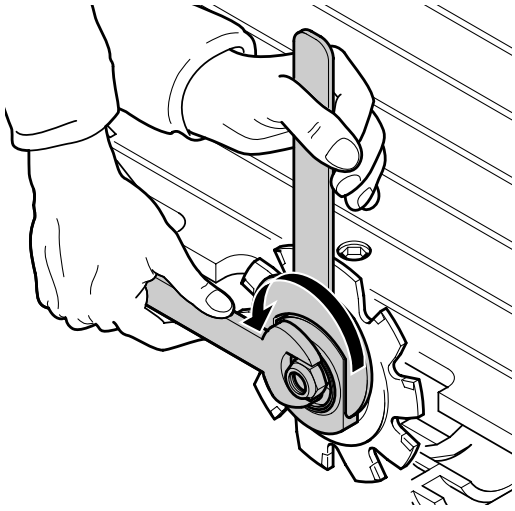


6. Stand saw back on its feet/workstand.
7. Adjust saw blade position by turning the setting nuts.
8. Turn saw over again and place on its saw table.
9. Tighten both nuts inside the saw again.
10. Stand saw on its feet/workstand again.
11. Loosen all setting nuts by approx. two turns.
12. Slide chip case cover back into the closed position and tighten screws.
13. Mount travelling sizing table.

Scribing blade change

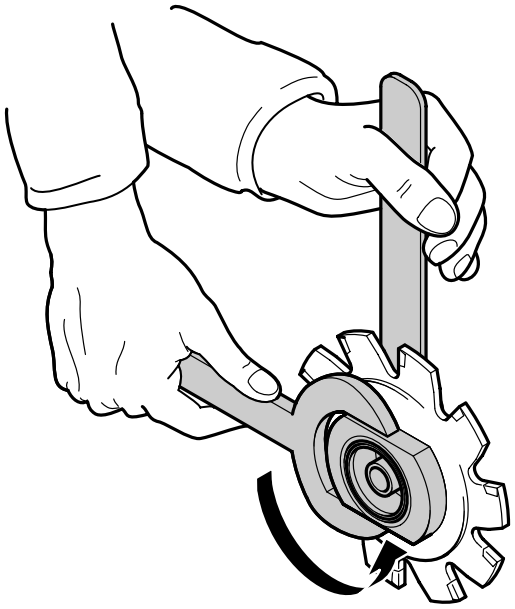
Danger!
Risk of injury by the saw blade's teeth. Wear gloves when changing blades.

1. Dismount the main saw blade (see „Main saw blade change").
2. The scribing blade's drive belt is tensioned by a spring, which pushes the scribing blade drive motor down. To take the drive belt off, lift motor up.
3. Lock scribing blade with open-end spanner and loosen the arbor nut (standard R.H. thread).



4. Remove scribing blade and dish spring assembly from blade arbor.

5. Unscrew clamping collars with a second open-end spanner.



6. Clean all clamping surfaces on blade arbor, clamping collars and scribing blade.

Danger!
Do not use cleaning agents (e.g. for removing resin residue) that could corrode the light metal components of the saw; the stability of the saw would be adversely affected.

7. Install clamping collars to fresh scribing blade (direction of rotation opposite to main saw blade).

Danger!
- Use only suitable saw blades (see “Technical specifications“)
- Mount saw blade only using genuine parts.
- Do not use loose-fitting reducing rings; the saw blade could work loose.
- Saw blades have to be mounted in such way that they do not wobble or run out of balance, and can not work loose during operation.

8. Put dish spring assembly and clamping collars with scribing blade onto blade arbor (direction of rotation opposite to main saw blade!).
9. Screw arbor nut, with the low side facing the blade, **fingertight** only onto the saw spindle.

Danger!
- Do not extent the arbor nut wrench.
- Do not tighten arbor nut by tapping on the wrench.

10. Put scribing blade drive belt back on the pulleys. It must be tensioned by the spring.
11. Install main saw blade and travelling sizing table (as described earlier).

Scribing blade setting

In order to align the scribing blade perfectly with the main saw blade, it can be adjusted in two directions:

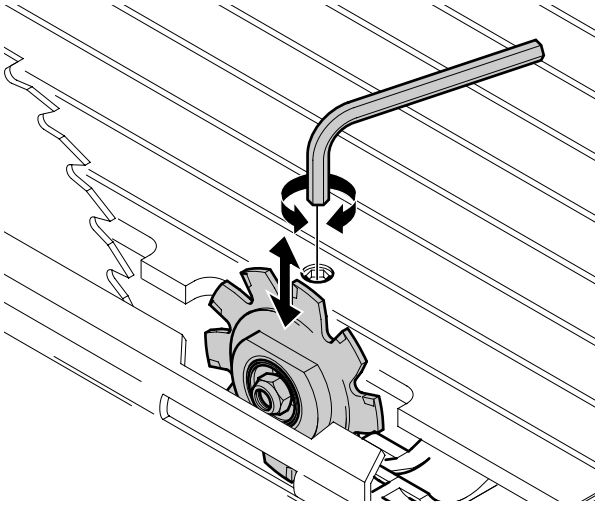
- up and down;
- to the left or right.

Height setting

The teeth of the scribing blade are of trapezoidal shape – the higher it projects over the saw table the wider the kerf. The width of the kerf must be exactly the same as the width of the main blade’s kerf (make trial cut).
Normally the scribing blade should project 2 to 3 millimetres over the saw table.

Height adjustment is done by means of a hexagon socket head cap screw, accessible from the saw table top.

- Hexagon socket head cap screw turned clockwise
  = scribing blade is lowered.
- Hexagon socket head cap screw turned counter-clockwise
  = scribing blade is raised.



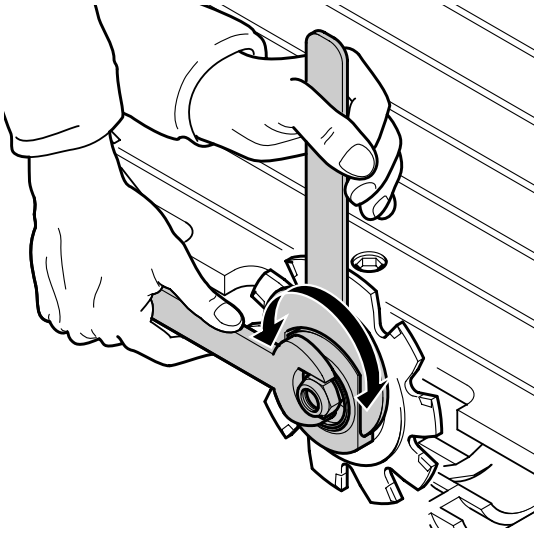
The height setting can also be done by handwheel. The handwheel is fitted to the other end of the hexagon socket head cap screw and accessible from the underside of the saw.

Lateral alignment

Scribing blade and main saw blade must be exactly in line (make trial cut). Checking is required after every change of the main saw blade in particular.

1. To set loosen the chip case cover (see „Main saw blade change“).

2. Lock scribing blade with an open-end spanner.



- Turn arbor nut clockwise
  = scribing blade is offset to the right.
- Turn arbor nut counter-clockwise
  = scribing blade is offset to the left.

3. Swing chip case cover back and tighten screws.

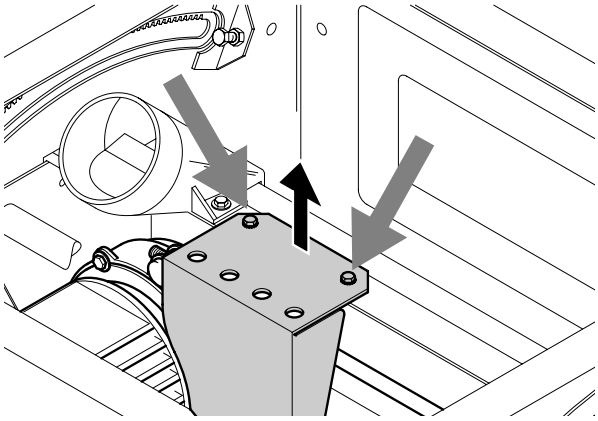
Main drive belt tensioning

The main drive belt runs between the main drive motor and the saw spindle of the main saw blade. It requires retensioning if:

- it deflects by more than 5 mm when pressed down with a thumb;
- the main blade takes more than 10 sec to come to a complete standstill.

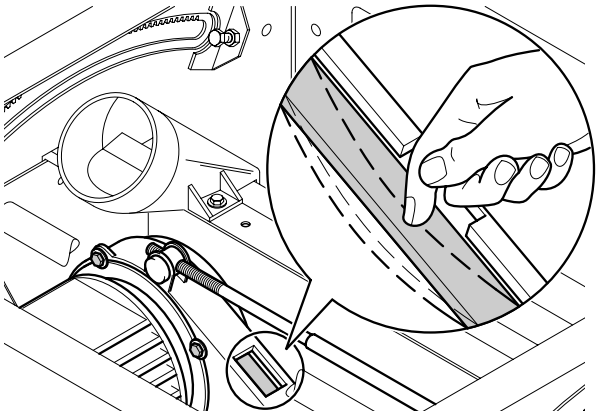
To check and retension

1. Turn saw upside down.
2. Unscrew cover plate from motor (grey arrows).



3. Check belt tension at window in transmission housing by pressing with a thumb.
   If the belt requires retensioning:

4. Loosen the four screws holding the motor by approx. one turn.



The motor is mounted on a cam plate. The belt tension is adjusted by turning the motor housing as required:

- Turning motor housing clockwise
  = less belt tension.
- Turning motor housing counter-clockwise
  = more belt tension.

5. When the belt tension is correct tighten motor fixing screws crosswise.
6. Screw cover plate back to motor.

The scribing blade drive belt requires no maintenance.

Riving knife setting

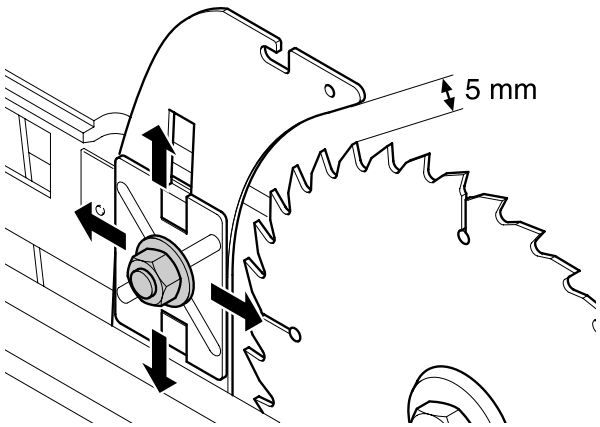
The riving knife is one of the safety devices and has to be correctly installed for a safe operation.

In order to match the riving knife exactly with the main saw blade, it can be adjusted in two directions:

- in the distance to the main blade;
- to the left or right for alignment.

Distance to the main saw blade

The distance between the saw blade's outer edge and the riving knife should be approx. 5 mm.

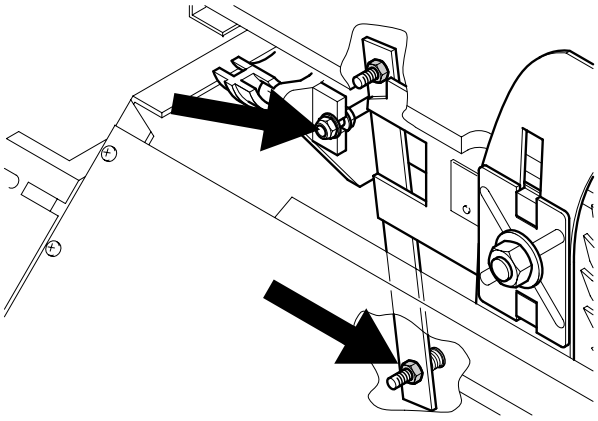


1. Remove blade guard.
2. Take off the travelling sizing table.
3. Raise saw blade fully.
4. Loosen screws on chip case cover. Lift chip case cover slightly and swing over the screws. The cover is hooked into the bottom of the chip case and can not fall down.
5. Loosen nut on riving knife by approx. one turn.
6. Adjust riving knife position.
7. Tighten nut.

Lateral offset

Riving knife and main saw blade must be exactly in line (make trial cut).
The alignment needs to be checked after every setting of the riving knife's distance to the main blade.

- Turn set screws (arrow) clockwise
  = riving knife is set to the right.
- Turn set screws (arrow) counter-clockwise
  = riving knife is set to the left.



8. Slide chip case cover back into the closed position and tighten screws.
9. Attach blade guard.
10. Reinstall travelling sizing table.

Travelling sizing table alignment

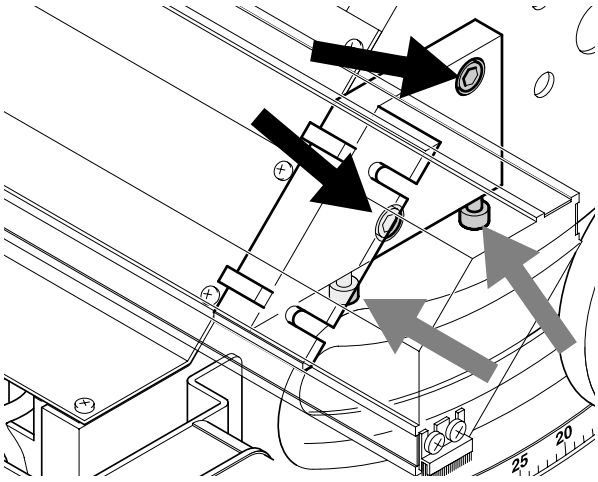
In order to align the travelling sizing table exactly, it can be adjusted in two planes:

- in height;
- in lateral alignment.

Height adjustment

The surface of the travelling sizing table should be approx. 0,5 mm above the surface of the saw table.

1. Loosen the hexagon socket head cap screws of both angle brackets by approx. one turn (black arrows).



2. Set the height with the two setting screws (grey arrows) on the angle bracket:

- turning setting screw out
  = travelling sizing table lower.
- turning setting screw in
  = travelling sizing table higher.

Lateral traverse

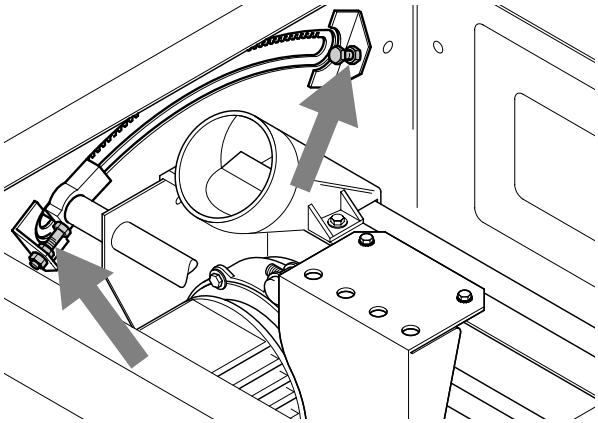
The distance between saw table and travelling sizing table must be between 9,5 and 10 mm over the entire length.

1. Loosen hexagon socket head screws by approx. one turn.
2. Adjust travelling sizing table position by light taps with a rubber mallet.
3. Tighten both angle brackets' hexagon socket head cap screws.

Blade tilt stop setting

1. Raise blade fully and set at true 90° against the table with the help of a try square.
2. If the 0° (90°) stop does not exactly match the saw blade position:
   lower saw blade completely, turn saw upside down and place on its saw table.

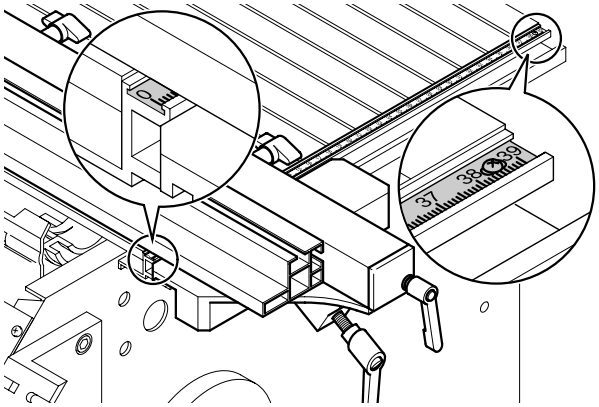
3. Adjust backstop setting screws on both front and rear of the saw until blade is in exact 0˚ position when set against the 0˚ stop.



4. To check the setting of the 45˚ backstop, repeat steps 1 to 3 accordingly.
5. After resetting any of the backstops, check bevel tilt scale on the machine's front, adjust if necessary.

Scale setting

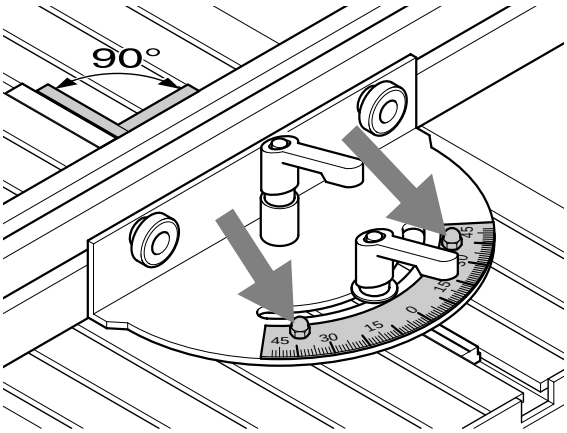
The rip fence scale needs to be set according to the position and thickness of the saw blade.



1. Position rip fence against the right hand side of the main blade and lock.
   The "0"-mark of the scale should now be directly underneath the left-hand edge of the rip fence extrusion. If not:
   - loosen fixing screw and reposition scale.
   - tighten fixing screw and remove rip fence.

Universal fence adjustments

1. Check if fence is square against saw blade with a try square.
2. If necessary, loosen fixing screws and adjust mitre scale.



3. Retighten fixing screws.

Cleaning the saw

1. Lay machine on its side.
2. Remove chips and saw dust with vacuum cleaner or brush:
   - from saw blade setting guide elements
   - from travelling sizing table guide elements
   - from motor vent slots

Machine transportation

- Lower saw blade completely.
- Engage the travelling sizing table's travel lock.
- Dismount any add-on parts, projecting over the saw.
- Carry saw with two persons; hold at saw table.
- If possible, pack in the original carton for shipping.

Machine storage

Danger!
Store machine so that
- it can not be started by unauthorized persons, and
- nobody can get injured.

The on/off buttons can be blocked with a padlock.

Caution! Do not store machine outdoors or in damp environment without protection.

Service plan

Before switching ON	
– Chip ejection (when operated without dust collection) and – table slot	Visual check if unobstructed by chips.
Riving knife	Visual check if distance saw blade – riving knife is 3...8 mm.

Monthly (if used daily)	
Clean guide elements for saw blade setting – threaded rods for blade rise and fall; – swivel segments.	– Remove chips with vacuum cleaner or brush; – apply light coat of oil to guide elements.
Check guide elements of travelling sizing table: – bearing surfaces; – roll bearings.	– Remove chips with vacuum cleaner or brush; – adjust or replace bearing surface brushes if necessary.
Power cable	Check for damage, if necessary have replaced by a qualified electrician.

Every 300 hours of operation	
Main saw blade drive belt	Check tension (≤ 5 mm)
All screwed connections	Check, retighten if necessary (except saw blade longitudinal shift setting screws).

Troubleshooting

Danger!
Before carrying out any fault service or maintenance work always:
- Switch machine OFF.
- Unplug power cable.
- Wait for saw blade to come to standstill.

Check that all safety devices are operational again after each fault service.

Motor does not run	
Undervoltage relay tripped by power failure.	Switch on again.
No supply voltage.	Check cables, plug, outlet and mains fuse.
Motor overheated, e.g. by – a dull saw blade – too high a feed rate – sawdust build-up in housing.	Eliminate cause for overheating, wait for a few minutes, then start saw again.

Reverse rotation of saw blade (three-phase motor only)	
No supply voltage.	Interchange phases (see „Assembly and connection“

Loss of cutting performance	
Saw blade dull (possibly tempering marks on blade body).	Replace saw blade (see section „Maintenance“).

Travelling sizing table not running smoothly	
Roll bearings/bearing surfaces soiled.	Clean, if necessary adjust or replace bearing surface brushes.

Technical specifications

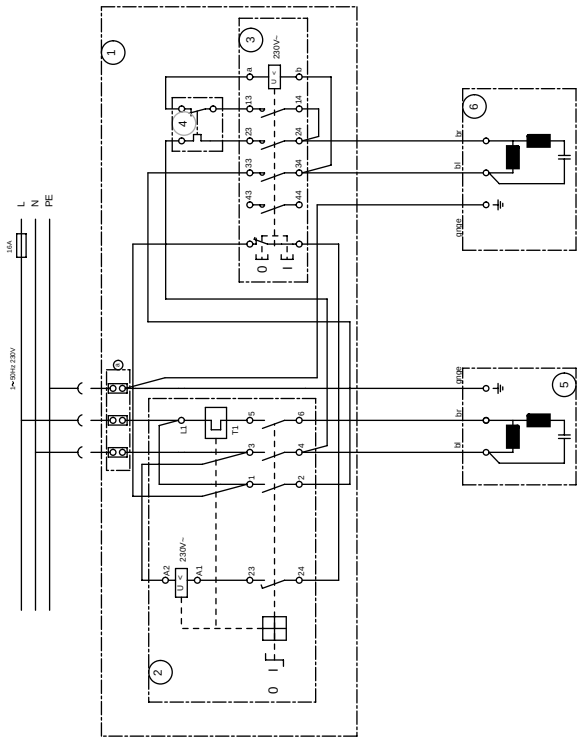
		Single-phase motor	Three-phase motor
Voltage	V	230 (1~ 50 Hz)	400 (3~ 50 Hz)
Rated current	A	11.0	6.0
Fuse protection min.	A	1 x 10 time-lag	3 x 16 time-lag
Protection class		IP 44	IP 44
Speed main motor	min^{-1}	2800	2800
Capacity main motor input P_1 output P_2	kW kW	2.5 kW S6 40% 1.9 kW S6 40%	3.4 kW S6 40% 2.5 kW S6 40%
Speed main blade	min^{-1}	3800	3800
Cutting speed main blade	m/s	50	50
Main blade diameter (outer)	mm	250	250
Main blade arbor bore diameter (inner)	mm	30	30
Depth of cut main blade at 90° vertical at 45° tilt	 mm mm	 0 ... 80 0 ... 53	 0 ... 80 0 ... 53
Speed scribing motor	min^{-1}	2800	2800
Capacity scribing motor input P_1 output P_2	kW kW	0.3 kW S6 40% 0.2 kW S6 40%	0.3 kW S6 40% 0.2 kW S6 40%
Speed scribing blade	min^{-1}	6000	6000
Cutting speed scribing blade	m/s	28	28
Scribing blade diameter (outer)	mm	90	90
scribing blade arbor bore diameter (inner)	mm	30	30
Depth of cut scribing blade at 90° vertical at 45° tilt	 mm mm	 0 ... 3 0 ... 2	 0 ... 3 0 ... 2
Dimensions length saw table width saw table height (with blade guard) length trav. sizing table 1800 length trav. sizing table 950 width travelling sizing table	mm mm mm mm mm mm	760 405 525 1800 950 250	760 405 525 1800 950 250
Weight with travelling sizing table and work-stand approx.	kg	97	97
No-load noise emission values, dust collection off Sound pressure level A L_{pA} Sound power level A L_{WA}	 dB (A) dB (A)	 81,0 89,0	 81,0 89,0
Noise emission value during sawing operation, dust collection on A-sound pressure level L_{pA} Sound power level A L_{WA}	 dB (A) dB (A)	 89,0 98,0	 89,0 98,0

Available saw blades

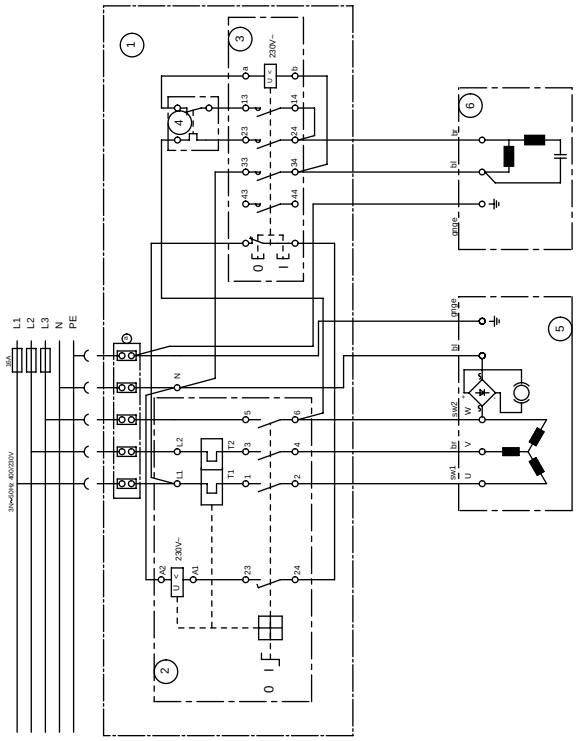
Application	Description	Stock-no.
Main saw blade with extraordinary long edge life for – solid timber – laminated timber	∅ 250 x 3.2/ 2.2 x 30 2NL T = 42 universal ATB	091 001 0174
Main saw blade for smooth edge cuts in – solid timber – particle board	∅ 250 x 3.2/ 2.2 x 30 2NL T = 80 multiple ATB	091 001 0190
Main saw blade, in conjunction with scribing blade for – faced sheets – veneered sheets	∅ 250 x 3.2/ 2.2 x 30 2NL T = 60 combination ATB	091 001 0182
Scribing blade for – solid timber – faced sheets – veneered sheets – particle board	∅ 90 x 4.8/ 3.2 x 30 T = 10 flat top	091 005 2489

Circuit diagrams

Single-phase motor



Three-phase motor



ELEKTRA BECKUM

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Postfach 13 52, D-49703 Meppen

CE

EG-Konformitätserklärung - *EC conformity declaration* - Déclaration de conformité CEE
EG-verklaring van overeenstemming* - EF-overensstemmelsesattest - *EG-konformitetsdeklaration
EF-konformitetserklæring - *Selvitys ey-standardinmukaisuudesta* - Dichiarazione di conformità CE
***Declaración de conformidad-UE* - Declaração de conformidade CE**

Wir erklären, daß die Bauart der Maschine/des Gerätes - *We declare that the design of the machine/appliance*
Nous certifions que le type de la machine/de l'appareil - *Wij verklaren dat de constructie van de machine/het apparaat*
Vi erklærer, at konstruktionen af maskinen/apparatet - *Härmed försäkrar vi att maskin/apparat* - Vi erklærer at konstruksjonsmåten til maskin/apparat
Täten selvitämme, että alla mainittu kone/laite - Dichiariamo che il modello della macchina/dell'apparecchio
Declaramos, que el modelo de la máquina/aparato - Declaramos que o tipo de construção da máquina/do aparelho

Formatkreissäge

PKF 255 V8/ 3100 WNB - PKF 255 V8/ 4200 DNB

Art.-Nr. - *Stock-no.* - N° d' article - *art.-nr.* - art.-nr. - *Art.-nr.* - Art.-Nr. - *tuotenumero* - N° Art. - *Art.N°* - artigo n°:
019 259 3441 - 019 259 3433

folgenden einschlägigen Bestimmungen entspricht - *corresponds with the following relevant regulations*
est conforme aux règlements applicables suivants - *aan de volgende terzake geldende voorschriften voldoet* - opfylder følgende gældende bestemmelser
enligt sitt byggsätt motsvarar följande gällande föreskrifter - oppfyller de følgende gjeldende bestemmelser
vastaa seuraavia asiaa koskevia määräyksiä - corrisponde alle seguenti norme in materia
se ajusta a las siguientes directrices correspondientes - se enquadra com as seguintes disposições pertinentes:

EG-Maschinenrichtlinie - *EC machine directive* - directive CEE pour les machines - *EG-machinerichtlijn* - EF maskindirektiv - *EG-maskindirektiv*
EF maskindirektiv - *Koneita koskeva EY-direktiivi* - Direttiva CE per macchinari - *Directriz de máquinas-UE* - Directiva CE para máquinas
89/392/EWG
93/68/EWG

EG-Richtlinie Elektromagnetische Verträglichkeit - *EC-directive electro-magnetic compatibility* - directive CEE sur la conformité électromagnétique
EG-richtlijn elektromagnetische compatibiliteit - EF-direktiv vedr. elektromagmetisk fordragelighed - *EG-direktiv för elektromagnetisk tolerans*
EF-direktiv om elektromagnetisk kompatibilitet - *Sähkömagneettista toleranssitasoa koskeva EY-direktiivi* - Direttiva CE compatibilità elettromagnetica
Directriz-UE Compatibilidad electromagnética - Directiva CE sobre compatibilidade electromagnética
89/336/EWG

EG-Niederspannungs-Richtlinie - *EC-Low voltage directive* - Directive CEE de basse tension
EG-laagspanningsrichtlijn - EF-lavspændingsdirektiv - *EG-direktiv för lågspänning*
EF-direktiv om lavspenning - *Pienjännitettä koskeva EY-direktiivi* - Direttiva CE per bassa tensione
Directriz para baja tensión-UE - Directiva CE sobre baixa tensão
73/23/EWG

Angewendete harmonisierte Normen - *Applied harmonized standards* - normes harmonisées appliquées - *Toegepaste geharmoniseerde normen*
Anvendte harmoniserede standarder - *Tillämpade harmoniserande direktiv* - Anvendte tilpassede normer - *Sovelletut harmonisoidut normit*
Norme armonizzate applicate - *Normas armonizantes aplicadas* - Normas harmonizadas aplicadas:
EN 60204, EN 61029-1

Angewendete nationale Normen - *Applied national standards* - normes nationales appliquées - *Toegepaste nationale normen*
Anvendte tyske standarder - *Tillämpade nationella direktiv* - Anvendte nasjonale normer - *Sovelletut kansalliset normit* - Norme nazionali applicate
Normas nacionales aplicadas - Normas nacionais aplicadas
E DIN VDE 0740-502

Die Baumusterprüfung wurde von folgender gemeldeter Stelle durchgeführt - *The type test was carried out by the following registered location*
L'homologation a été effectuée par l'office suivant - *De constructiemodel-keuring werd door de volgende officiële instantie uitgevoerd*
Typemønsterprøven er gennemført af følgende registrerede institut - *Mönsterprovet utfördes på följande auktoriserad institution*
Prototypen ble testet av følgende registrerte institusjon - *Mallikappaleen tarkastuksen on suorittanut seuraava rekisteröity laitos*
L'omologazione è stata effettuata dal seguente ufficio - *El ensayo de la muestra constructiva ha sido realizada por la siguiente institución autorizada*
A inspecção do modelo de construção foi realizada pela seguinte autoridade:
TÜV-Rheinland, Postfach 910351, D-51101 Köln

Nummer der EG-Baumusterprüfbescheinigung - *Number of the EC type test certificate* - Numméro d'homogolation CEE
Nummer van het EG-constructiemodel-certificaat - EF-typemønsterprøveattestens nummer - *EG-provintygets nummer*
Nummeret på EF-prototyptestsertifikatet - *EY-mallikappaletarkastustodistuksen numero* - Numero del certificato di omologazione CE
Número de la Certificación-UE de la muestra constructiva - Número do certificado de inspecção CE para o modelo:
BM 9810663 01

Technischer Leiter - *Technical Manager* - Le responsable technique - *Chef techniek* - Teknisk leder - *Produktledare*
Teknisk leder - *Tekninen johtaja* - Direttore teccnico - *Director técnico* - O director técnico

(B) Belgium

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Fax: 0032-24540450

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Elektra Beckum AG
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D-49716 Meppen
Tel.: 01803-333 456
Fax: 01803-333 457

(DK) Danmark

Elektra Beckum Danmark
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Postbox 8113
DK-9220 Aalborg OE
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Elektra Beckum Import S.A.
Calle Alejandro Coicoechea 6
E-08960 Sant Just Desvern
Tel.: 0034-3-4739009
Fax: 0034-3-4739755

(F) France

J. Muller
1.Place de Lábattoir
F-67190 Mutzig
Tel.: 00333-88479971
Fax: 00333-88479970

(FIN) Suomi/ Finland

Nofa OY
P.O.Box 28
Hannuksentie 1
FIN-02270 Espoo
Tel.: 00358-9804-861
Fax: 00358-9803-9485

(GB) Great Britain

Elektra Beckum Machinery Ltd.
6 The Quadrangle
Premier Way
GB-SO51 9AQ Romsey
Tel.: 0044-1794-834900
Fax: 0044-1794830083

(I) Italia

Elektra Beckum AG Germania
Daimlerstraße 1
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Profilma-Import A/S
Postboks 536 Nanset
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Fax: 0047-33114108

(NL) Nederland

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Einsteinstraat 15
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Fax: 0031-7257-44250

(P) Portugal

Costa & Garcia S.A.
Vila de Paraisp., Ap.23
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(S) Sverige

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