	
<b>RDJ 310-M</b> <b>RDJ 310-T</b> <b>RDJ 310HH-M</b> <b>RDJ 310HH-T</b>  <b>RDJ 410-M</b> <b>RDJ 410-T</b> <b>RDJ 410HH-M</b> <b>RDJ 410HH-T</b>	<b>Raboteuse / Dégauchisseuse</b> <b>Planer / Thicknesser</b>
User Manual - EN	
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# Spare parts ordering

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The following must always be specified when placing your order:

- Type and serial number of the machine
- Issue number of the service booklet
- Part number and quantity
- Your order code/reference and the correct delivery address

**FOR YOUR OWN SAFETY AND TO ENSURE A LONG SERVICE LIFE OF YOUR MACHINE: ONLY USE GENUINE JET SPARE PARTS!**

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# Safety and maintenance instructions

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Working with woodworking machines is an enjoyable job and will for sure be great fun. However, the use of the machine requires constant attention and caution. For your own safety, please follow the instructions mentioned below in this section. Pay close attention to the pictograms on the machine when using it, and refer to your Manual.

- To use safely this machine, the user has to follow the relevant operating and safety instructions provided.
- Carefully read the operating instructions and limitations of the machine.
- Make sure that all necessary guards are fitted to the machine, and always connect it to a dust and chips extraction system when the machine is operating. Make sure that the system is activated before starting the machine.
- Make sure there is enough space around the machine and that the workshop is adequately lighted.
- Use a dust mask and appropriate ear protection when working with the machine. Many types of masks and filters are available to prevent inhalation of wood dust. Correct selection and application are important to ensure proper operation.
- Never remove wood residues by hand while the engine is running. Only do so when the machine is completely switched off.
- In determining the health risk, it should be taken into account that when using, for example, MDFs, various types of impregnating agents, glues, synthetic resins, paints, varnishes, sandpaper and other elements, which may have a harmful effect, are added to the wood, and as such: preservatives, pesticides and some micro-organisms.
- When changing tools or performing maintenance operations, the machine must always be switched off. Tools in poor condition not only reduce the quality of the work performed, but also increase the risk of accidents.
- Always wear appropriate clothing. Loose or torn clothing is very dangerous.
- Keep children and untrained persons away from the machine and the work area.
- Ensure that periodic maintenance work is carried out in due time. Such work may only be carried out on a machine that has been disconnected from the power supply, in order to prevent any unintended starting.
- Clean regularly and properly: Read the instructions for cleaning the machine carefully. Only clean the machine when it is completely switched off.
- Each week, test the function of the emergency stop and safety switches.
- Please refer to the noise level values mentioned in this Manual.

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# List of risks

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This list is based on the C EN ISO 19085-5 standard.

- Mechanical risks caused, for example, by: shape, mass and stability (potential energy of the elements), relative arrangement, mass and speed (kinetic energy of the elements), insufficient mechanical strength, accumulation of potential energy of elastic elements (springs), machine elements or machined parts.
- Risk of crushing
- Risk of cuts
- Risk of biting, wrapping
- Risk of electric shock or pinching
- Ejection of parts (from the machine or the workpiece), electrical risks, caused by electrical contact (direct or indirect).
- Risks caused by noise, materials or inhalation of toxic substances
- Risk of fire or explosion
- Combined risks
- Risks caused by power supply failure, failure of machine components and other malfunctions, e.g., all kinds of guards, safety devices and start/stop devices.
- Safety signs and pictograms and any type of information or equipment.

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## Operating instructions

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The following recommendations for safe operation are given as an example, in addition to all the information specific to this machine that are required for a safe use.

The user should also follow the operating instructions to avoid accidents.

### 1. Training of machine operators

It is essential that machine operators receive adequate training in the operation, adjustment and handling of the machine. In particular:

- a) risks associated with the use of the machine;
- b) principles of operation, correct use and adjustment of the machine;
- c) right choice of tool for each operation;
- d) safe handling of workpieces.

### 2. Stability

In order to use the machine safely, it is imperative that it is stable and firmly anchored to the ground or any other surface.

### 3. Adjustment and installation of the machine

- a) The machine must be disconnected from the mains before each adjustment.
- b) When installing and adjusting tools, the recommendations of the component manufacturer should be followed.
- c) To ensure safe and efficient use, the tool must be suitable for the material to be machined. The tool must be properly sharpened and installed, with carefully balanced toolholders.

### 4. Handling the tool

Precautions must be taken when handling the tool to avoid accidents, such as serious cut injuries.

### 5. Use of the fence

- a) A wood pusher should be used to manually push narrow and/or thin pieces.
- b) Long pieces should be supported by trestles.

## 6. Noise reduction

- a) The condition of the machine is important to keep the noise level as low as possible.
- b) The material and position of the guards should be such that they reduce the noise level.
- c) The above does not alter the fact that separate protective equipment must be used.

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# Possible and prohibited uses

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## ***SURFACE PLANING AND THICKNESSING MACHINE***

The whole planing/thicknessing system that is designed for the following applications is equipped with a suitable protection and should only be used for wood processing.

Other materials cannot be processed with this system.

- Surface planing operation lengthwise on the surface planing tables.
- Straightening of edges on surface planing tables.
- Chamfering of milled workpieces on surface planing tables.
- Machining of edges between 90° and 45° on surface planing tables
- Thicknessing workpieces on the thicknessing machine.

## PROHIBITED USES

The following operations are prohibited on the machine:

- Working in the direction of the wood grain

## LATENT RISKS

Most accidents with the thicknesser occur as a result of direct contact between the rotating planer shaft and its driving system, a violent ejection of pieces of wood and when the wood is roughly pushed away.

- Spinning knife.
- Immediate vicinity of mechanical elements.
- Area of the wood backward movement.

Despite the use of specific protection/guards and the observance of safety and hygiene rules, latent risks still exist when working with the surface planning and thicknessing machine.

- Risk of accident in the unsecured area around the tool.
- Risk of injury when changing tools.
- Risk of injury caused by the wood itself or by thrown out chips.
- Risk of crushing fingers.
- Risk of dropping the piece of wood.
- Health risks due to prolonged inhalation of dust particles, especially from oak, beech and some exotic woods.
- Risk of jamming and crushing between the frame and the thicknesser tables or knives when the thickness planer is in operation.
- Deafness due to prolonged exposure to noise.

## ***MORTISER (Option)***

The mortiser is composed of a removable drilling table and of the drill head which is mounted at the end of the planer shaft. The mortiser is designed for the applications listed below; it is equipped with a suitable protection and should only be used for wood processing. No other materials should be machined with this system.

- Drilling holes in all types of wood, with or without stop.
- Drilling holes in solid wood.
- Removing knots.
- Manufacture of filler pieces to replace knots.

## PROHIBITED USES

The following operations with the mortising machine are prohibited:

- Milling or tenoning with unsuitable tools.
- Grinding of metal parts, e.g., planer/thicknesser blades.

## LATENT RISKS

The main accidents involved when using the mortising machine are the following:

- Unintentional contact of hands with the tool in motion.
- Tilting of the workpiece due to the lack of an adequate bearing surface.
- If the drill head is mounted on the shaft end: risk of contact with the rotating shaft.

Despite the use of specific protections/guards and the observance of safety and hygiene rules, latent risks still exist when working with the mortising machine.

- Risk of accident in the unsecured area around the tool.
- Risk of injury when changing and installing tools (Cuts due to contact with the blades).
- Risk of crushing fingers.
- Health risks from prolonged inhalation of dust particles, especially from oak, beech and some exotic wood species.
- Deafness due to prolonged exposure to noise.

## **TYPES OF TOOLS**

### **SURFACE PLANING/THICKENESSING MACHINE**

The most commonly blades used are made of either high speed steel "HSS" or calcium carbide (carbide) "K".

### **MORTISER**

Use only flat left-handed mortise bits, preferably short bits to avoid vibrations.

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# **Explanation of measurements**

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## **SOUND LEVEL**

Measurements according to: NBN EN ISO 3746 (2011)

NBN EN ISO 11202 (2010)

Measurements made by: Vinçotte nv at the operator's workstation

	Sound level	Noise exposure
Thicknessing	103.9 dB(A)	95.1 dB(A)
Mortising machine	max 93.8 dB(A)	88.1 dB(A)

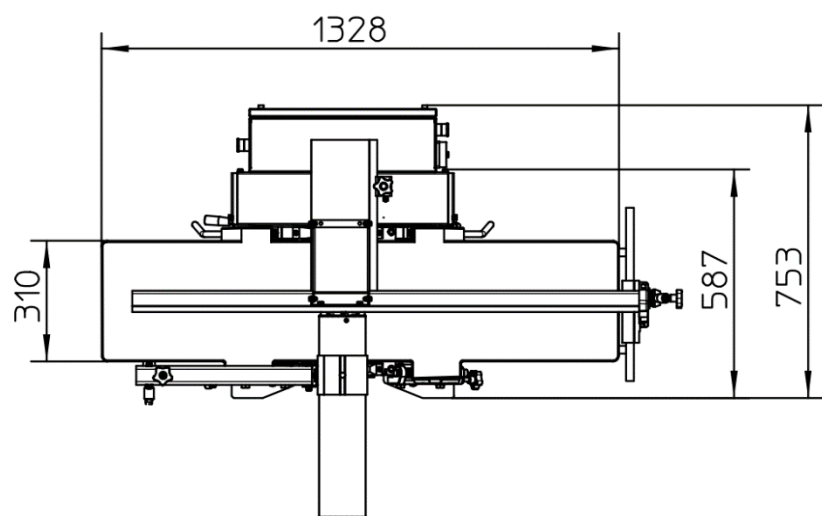
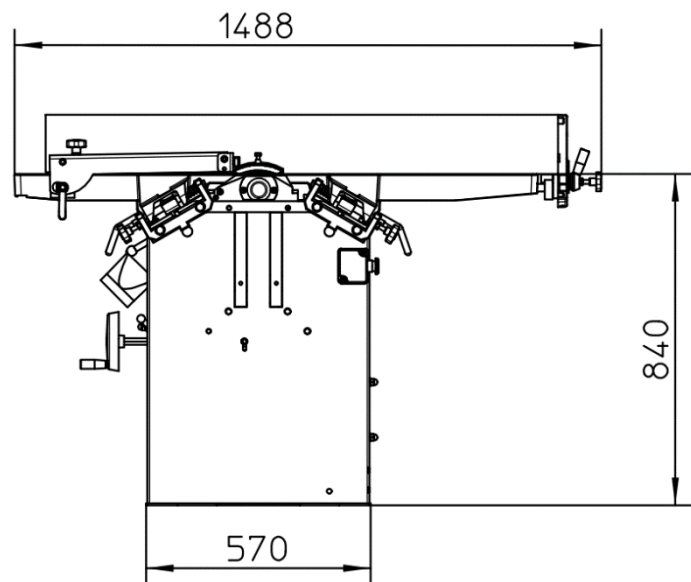
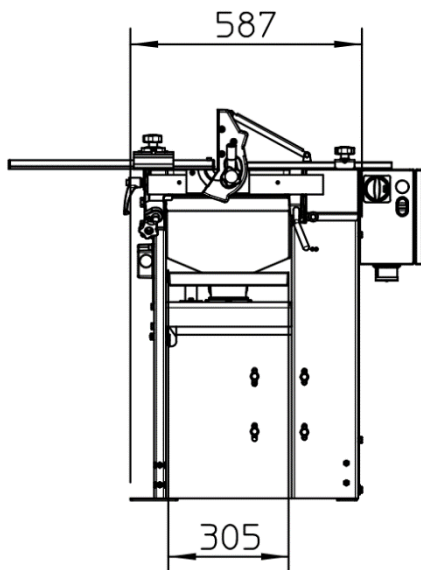
## **DUST EMISSION VALUES**

The machine produces dust and should therefore always be connected to a vacuum system.

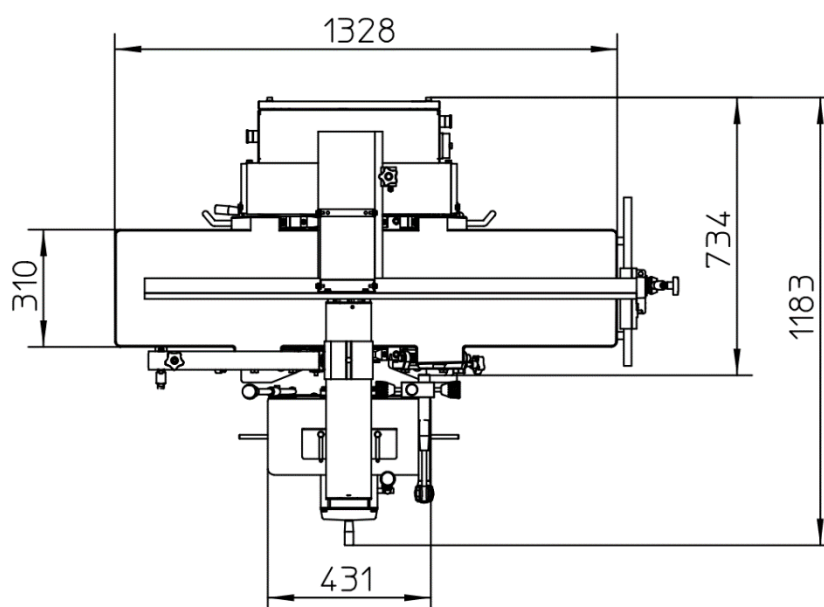
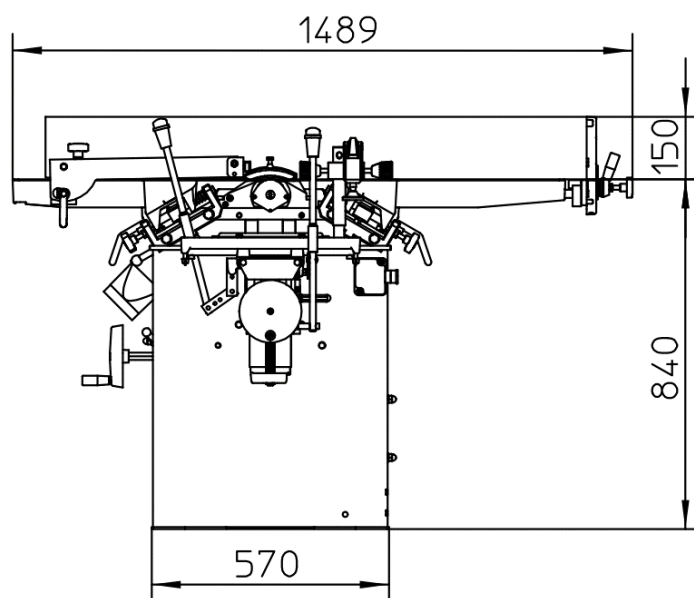
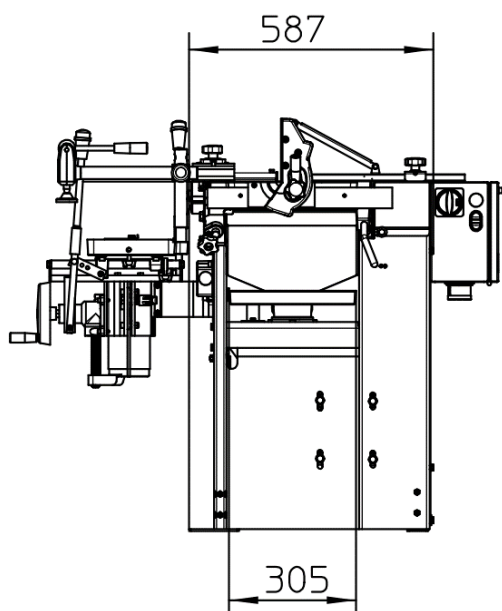
The pressure drop between the inlet of all collection devices and the connection to the chip and dust extraction system must not exceed 1500 Pa (taking into account an air velocity in the ducts of 20 m/s).

To ensure that chips and dust extracted from the point of origin are transported to the collection system, the design of hoods and ducts should be based on a transport rate of the air exhausted in the duct of 20m/s for dry chips and 28m/s for wet chips (degree of moisture 18% or more).

# Dimensions - RDJ 310



# Dimensions - RDJ 310 with mortising machine (Option)

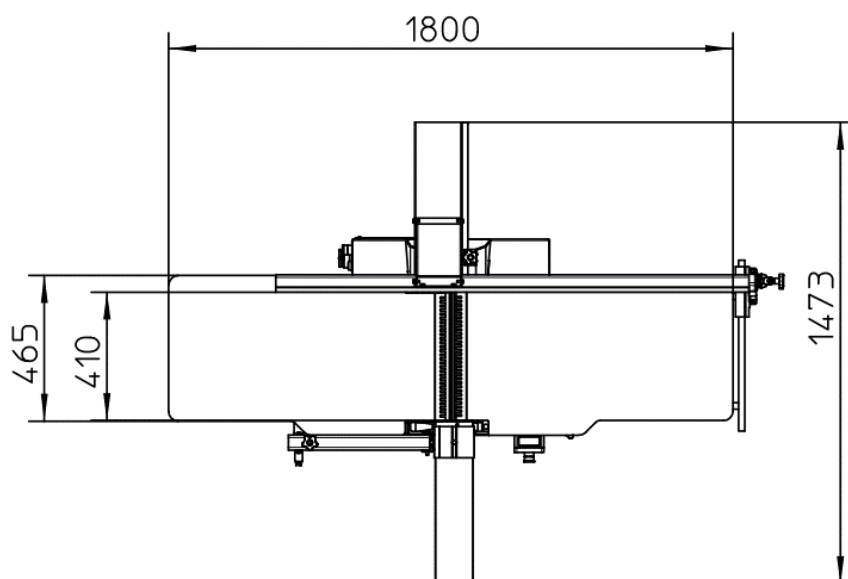
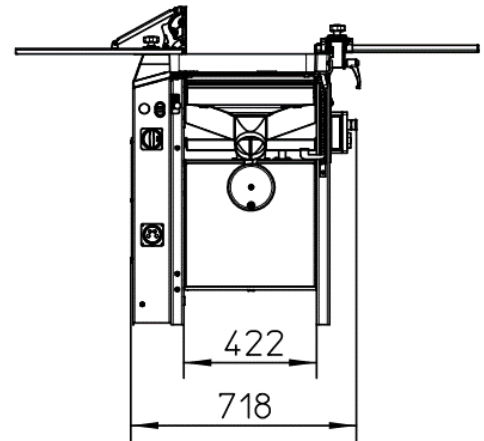
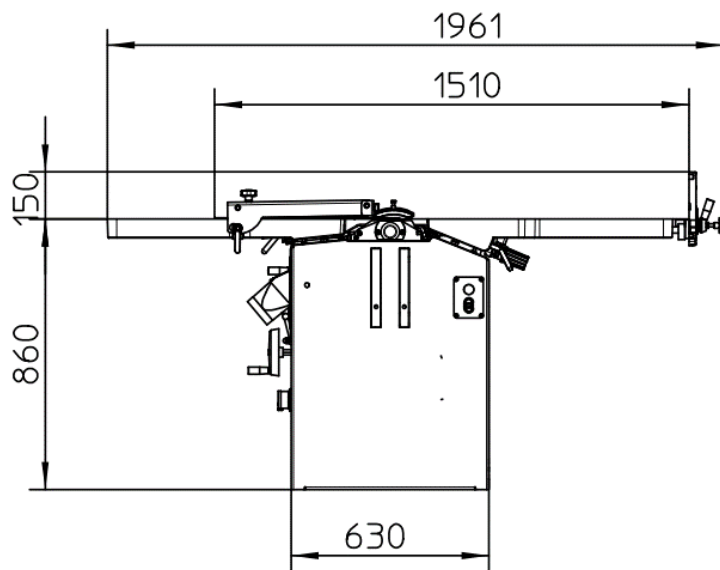




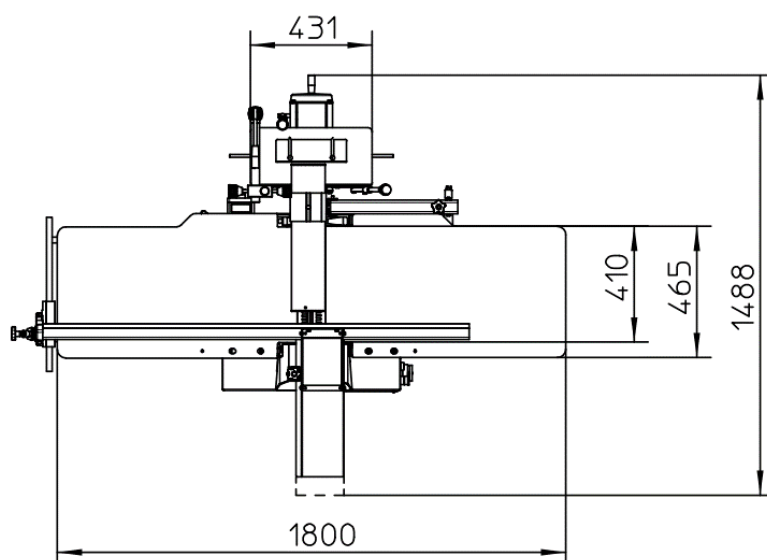
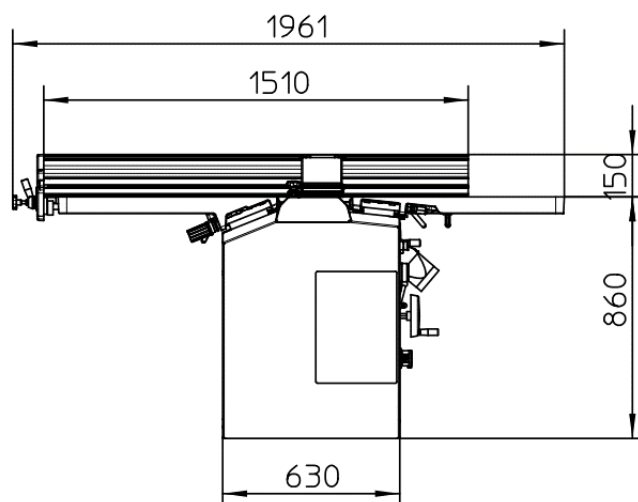
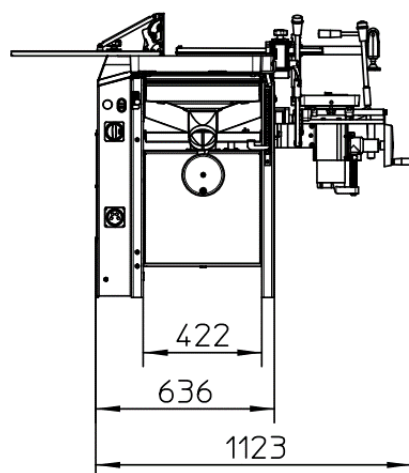
# Technical data - RDJ 310

Voltage	230 V (single phase) 400 V (three phase)
Weight	280 kg
<b>Surface planer</b>	
Working width	310 mm
Total length of the tables	1328 mm
Shaft diameter	70 mm
Knives	3
Dimensions of the blades	310 x 25 x 3 mm
Shaft speed	5500 RPM
Planer fence dimensions	1300 x 150 mm
Planer fence tilt angle	90° - 45°.
Maximum removal	4 mm
Motor power	3.7 kW S6 (three phase) 2.2 kW S6 (single phase)
<b>Planer</b>	
Table dimensions	430 x 310 mm
Passage height	230 mm
Diameter of drive rollers	30 mm
Drive speed	6 m/min.
<b>Mortising machine (optional)</b>	
Chuck	0 - 16 mm
Travels	165 x 140 x 85 mm

# Dimensions - RDJ 410



# Dimensions - RDJ 410 with mortising machine (Option)



# Technical data - RDJ 410

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Voltage	230 V (single phase) 400 V (three-phase)
Weight	320 kg
<b>Surface planer</b>	
Working width	410 mm
Total length of the tables	1800 mm
Shaft diameter	70 mm
Knives (quantity)	3
Dimensions of the blades	410 x 25 x 3 mm
Rotation speed	5500 RPM
Planer fence dimensions	1500 x 150 mm
Planer fence tilt angle	90° - 45°.
Maximum removal	4 mm
Motor power	4.4 kW S6 (three phase) 2.2 kW S6 (single phase)
<b>Planer</b>	
Table dimensions	600 x 410 mm
Passage height	230 mm
Diameter of drive rollers	30 mm
Drive speed	6 m/min.
<b>Mortising machine (optional)</b>	
Chuck	0 - 16 mm
Travels	165 x 140 x 85 mm

# Transport and commissioning

Depending on the mode of transport or shipping method, the machine will be delivered either in a box or on transport blocks. The panel packaging and wooden beams can be recycled. Remove the sides of the box as well as the paperboard and other items attached to the bottom of the box. Use the NX0122 accessory (Fig. 1.1) when using a pallet truck.

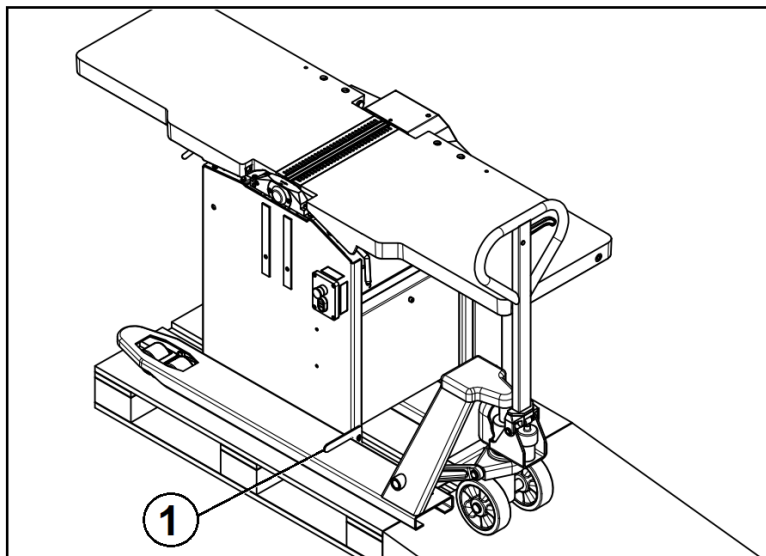


Fig 1

DO NOT lift the machine from the pallet using the lifting straps. Otherwise, THE ALIGNMENT OF THE TABLES WILL BE LOST.

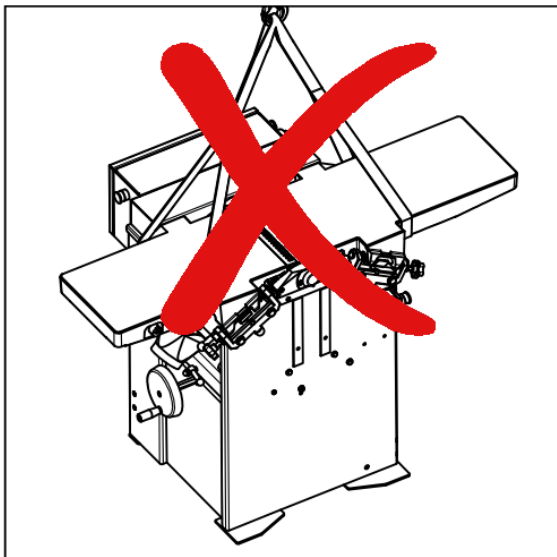


Fig 2A

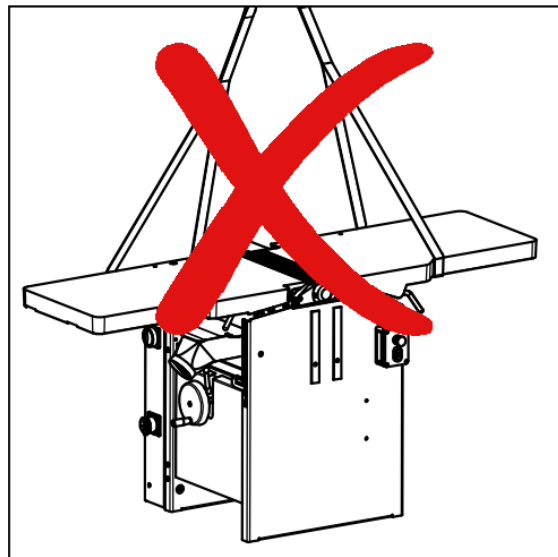


Fig 2B

## CAUTION:

If you have no choice but to use a lifting block (hoist), make sure it has sufficient load capacity, and position the lifting straps so that there is no too much pressure applied on the tables. Raise the machine a few centimetres to remove the bottom of the box.

## COMMISSIONING

After unpacking, check if the machine was damaged during transport or unloading. Place the machine in a stable position on a solid surface and ensure that there is enough space around the machine to work safely.

# Electrical connection

All electric connections must be made by a qualified electrician.

- Check that the mains voltage of your machine complies with the mains voltage of your workplace.
- Ensure that the machine is connected to a 300-mA differential.
- Remove the plug (Fig. 3) to fasten the connection cable.
- Connect the 3 phases to the terminals marked L1, L2, L3 (Fig. 4) for a 3-phase motor. (RED BLOCK)

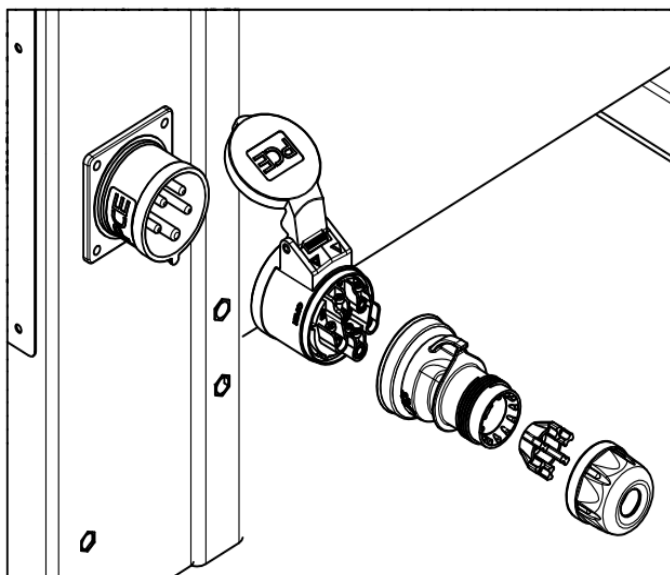


Fig. 3

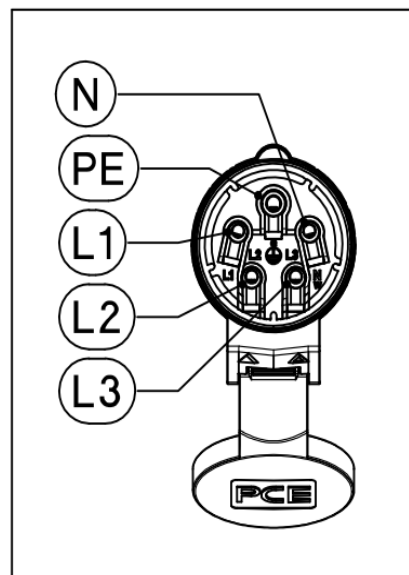


Fig. 4

- Connect the 2 phases to the terminals marked L1, L2 (Fig. 6) for single phase motors. (BLUE PLUG)

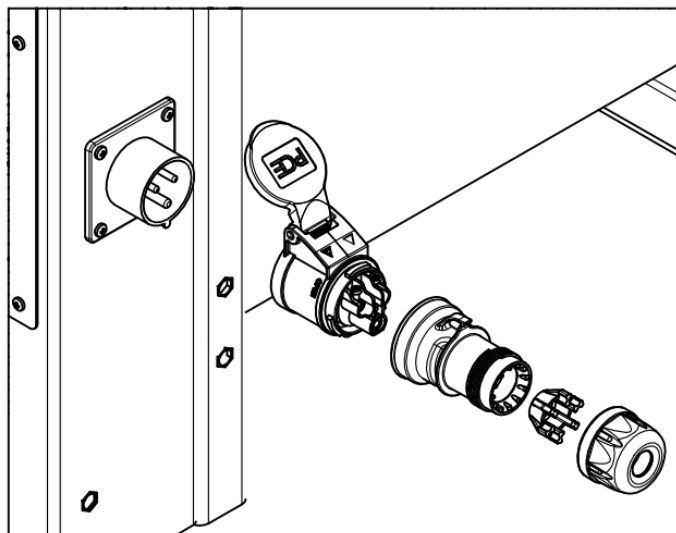


Fig. 5

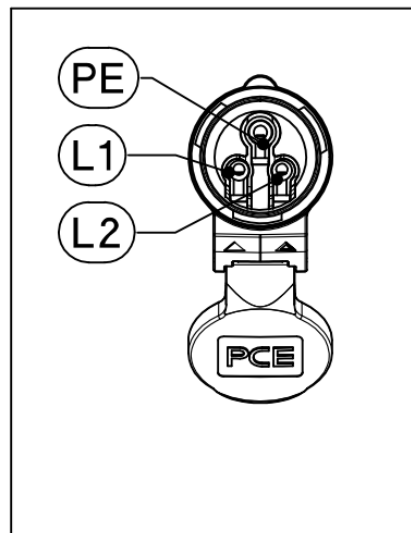


Fig. 6

If the power cable has a neutral conductor (blue), it is connected to the N terminal.

Always ensure proper earth connection and connect it to the terminal marked with the earthing symbol (the earthing conductor is yellow - green).

Before starting, make sure all axes can turn freely.

Check the direction of rotation of the motor.

The direction of rotation of this motor must be counter-clockwise. If the direction of rotation is incorrect, the L1 and L2 wires must be interchanged.

**Caution: test the direction of rotation of the shaft without tools in their holders**

**Comments:**

- Protection against short circuits of the electrical circuit parts is provided by fuses positioned between the main switch of the machine and the different current paths (see diagrams and parts list).
- Motors are protected against overload. If the motor is stopped by this protection, you must wait until the machine has cooled down completely before proceeding to a restart.
- Always check the direction of rotation of the shaft before each use of the machine, especially when:
  - The machine is moved and reconnected to the mains cable.
  - The power cord has been removed from the machine and reconnected.
  - The power cable has been removed from the electrical cabinet.

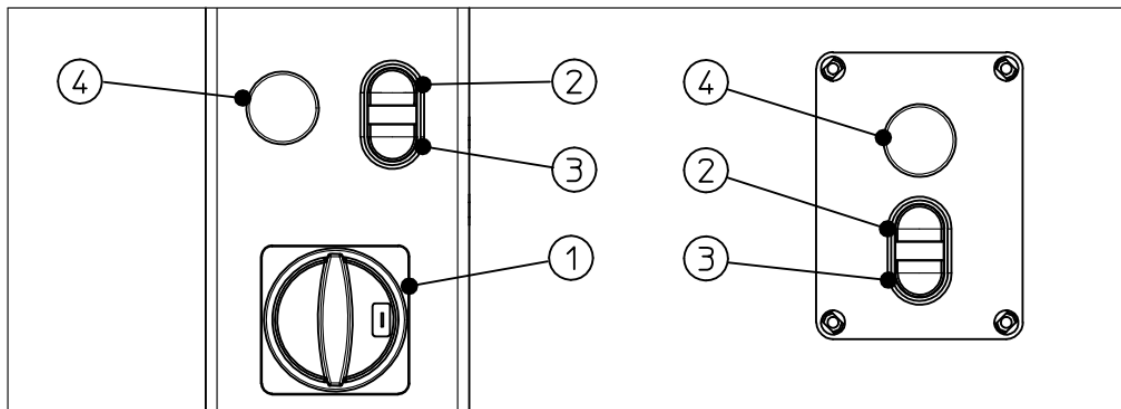


Fig 5

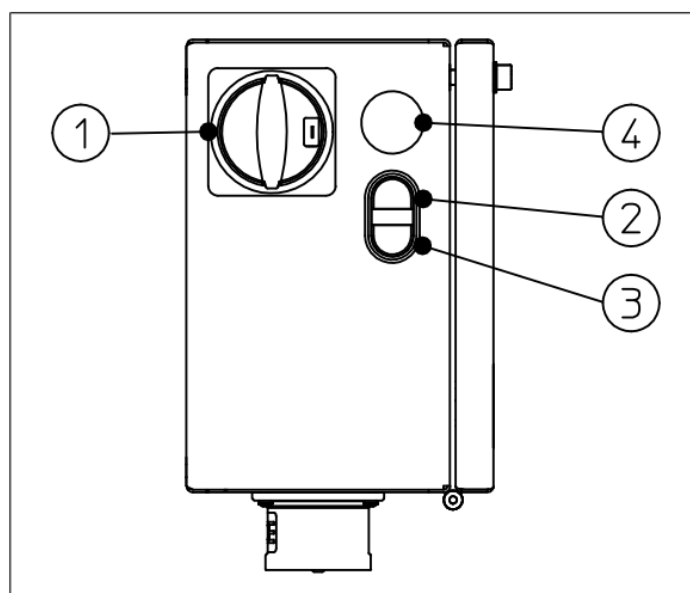


Fig. 7

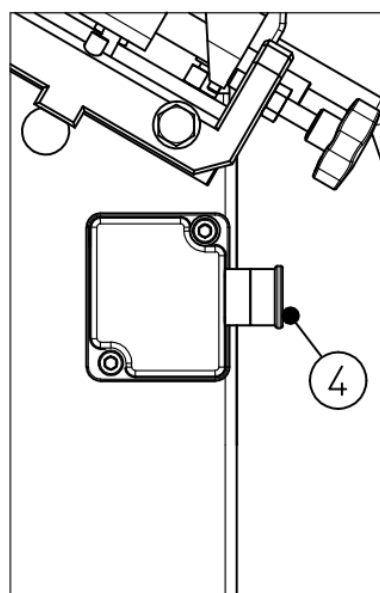


Fig 8

- 1 Main switch
- 2 Start button
- 3 Stop button
- 4 Emergency stop

# Surface planer/Thicknesser - Mortiser

## ***Safety precautions must be taken***

1. Make sure that no drill bit is left in the drill head.
2. Check that the planing knives are in the right position and correctly tensioned. It is of utmost importance that the planing knives are tightened accurately and firmly. Otherwise, the knives will inevitably be thrown off the planer shaft when the machine is started.

## ***Changing and adjusting the blades***

1. Open both surface planing tables and remove the old blades after releasing the locking bolts (Fig. 9.1).
2. Clean the clamping surfaces of the planer shaft. Make sure that the springs (Fig. 9.2) under the blades are not jammed in the bores.
3. The height of a sharpened blade (Fig. 9.3) should be at least 20 mm.
4. Adjust the cleaned blades (Fig. 9.3) using the adjustment template provided (Fig. 9.4) (Part No. X428).
5. Tighten the locking screws (Fig. 9.1) with the supplied spanner, starting from the centre of the shaft and working outwards.
6. Start the machine for a test run, then tighten the blades fully.

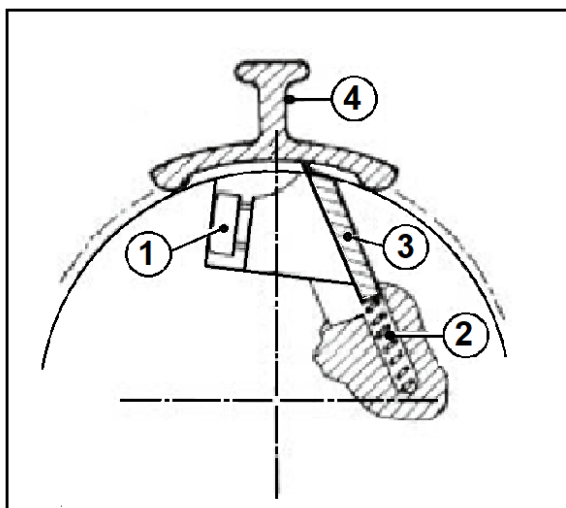


Fig 9

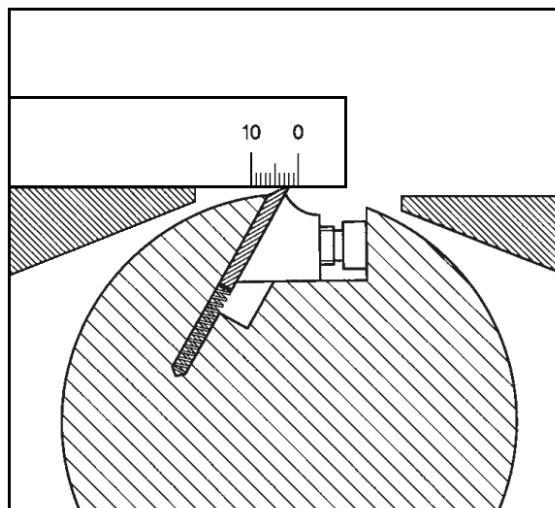


Fig 10

## ***Table adjustment***

- 1 The planing outfeed table should be set at the same height as the blades.
- 2 To do this, use a wooden batten placed on the outfeed table just above a blade. Both tables have a clamping lever (Fig. 11.1) and an adjusting screw (Fig. 11.2). To adjust the height, the table must be set correctly using the adjusting screw.
- 3 During this adjustment, manually turn the planer shaft until the knives are just in contact with the underside of the batten.
- 4 Once the height has been set, the table must be locked again.
- 5 Chip removal is controlled by adjusting the height of the feed table and should not exceed 4 mm.
- 6 Lock the table once the chip removal rate has been set.
- 7 The tables are opened by releasing the clamping levers and opening the tables.
- 8 Before closing the infeed and outfeed tables, keep in mind that the safety latch must be pulled down (Fig. 11.3). (Fig 14)
- 9 When unfolded, both tables are protected against unintentional closing by this safety device.

## ***Locking of the surface planing tables on RDJ 310***

**Both planing tables lock automatically when tilted to the open position for thicknessing.**

- 1 Swing the guard/evacuation device onto the planer shaft (Fig. 12+13) and secure it with the locking



- pin (Fig. 11).
- 2 To close the tables: Swing the suction/guard cover back over the planer shaft. Pull the clamp (Fig. 13) and tilt the cover. (Fig. 12.4) onto the planer spindle.
  - 3 Then pull down the hinge locking pins (Fig. 11.3 + Fig. 14) to close the tables.

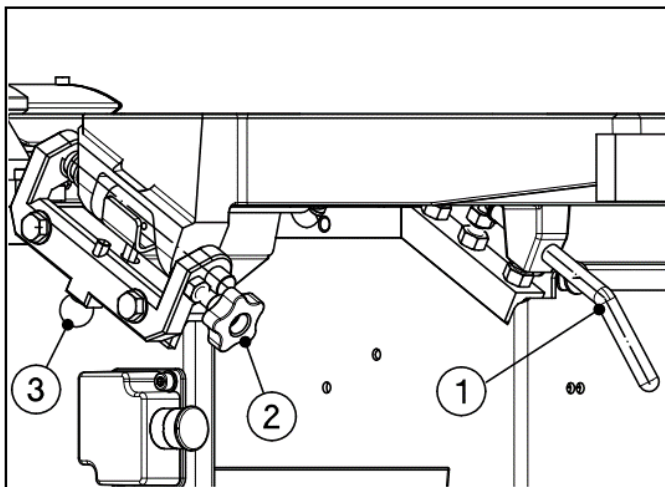


Fig 11

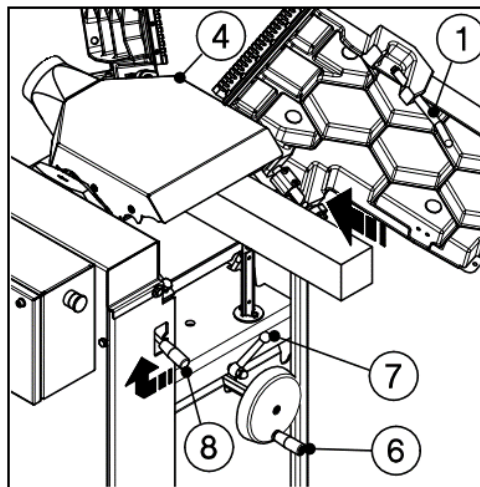


Fig 12

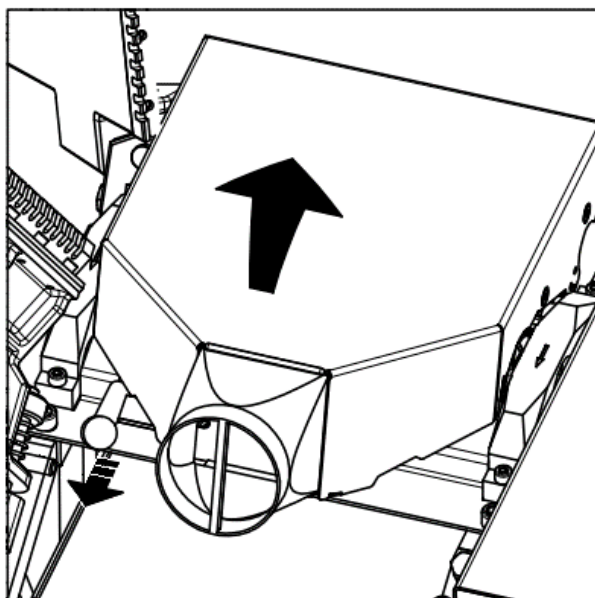


Fig 13

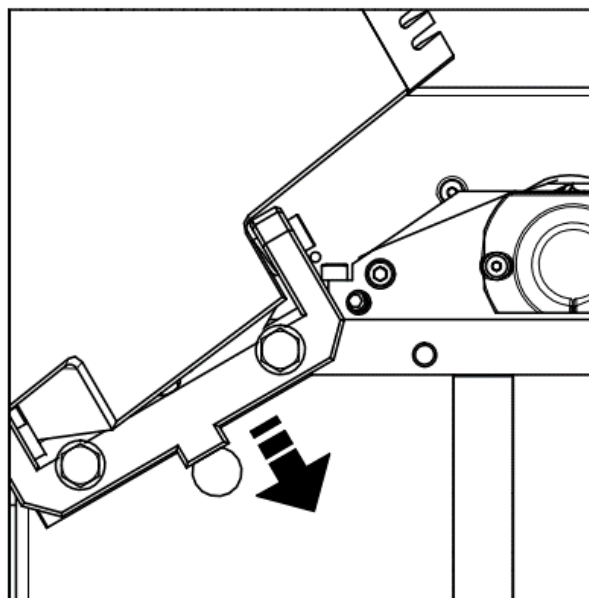


Fig 14

### Locking of the surface planing tables on RDJ 410

Chip removal is controlled by adjusting the height of the feed table and should not exceed 4 mm. After setting the chip removal rate (Fig. 16.2), lock the table.

The tables are opened by releasing the clamping levers (Fig. 15.1) and opening the tables.

Before closing the tables, do not forget to turn the safety lock (Fig. 16.3) upwards. When unfolded, both tables are protected against unintentional closing by this safety device.

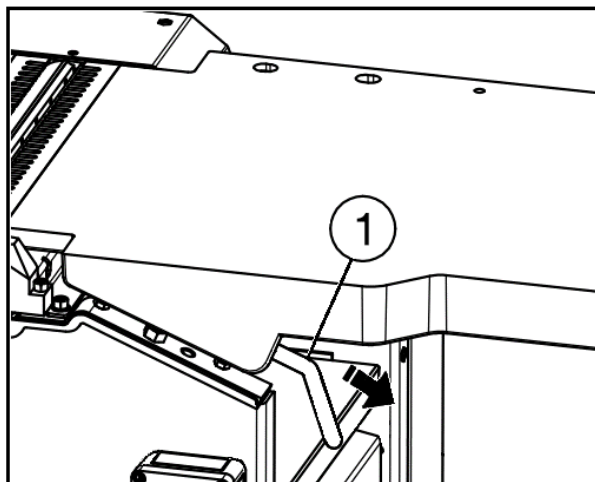
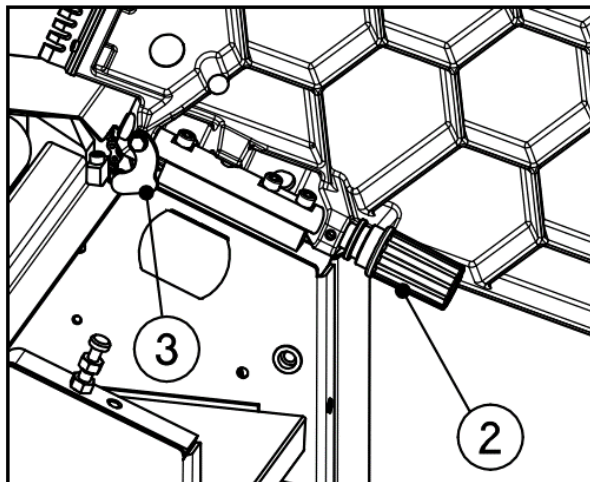


Fig. 15Fig



. 16

### Optional helical shaft with inserts

The helical shaft with inserts (Fig 17) is designed with a shear cut. The carbide blades are positioned slantwise along spiral grooves. The helical shaft reduces pull-out, produces smaller chips and is less noisy than a conventional cutting tool. When the cutting edge of a knife is dull or nicked, just turn 90°, in a few seconds, so that the cutting head is like new again. This enables to significantly reduce downtimes. Only replace the inserts when all four edges are dull. You don't have to replace all the blades at once as you would with a conventional straight blade.

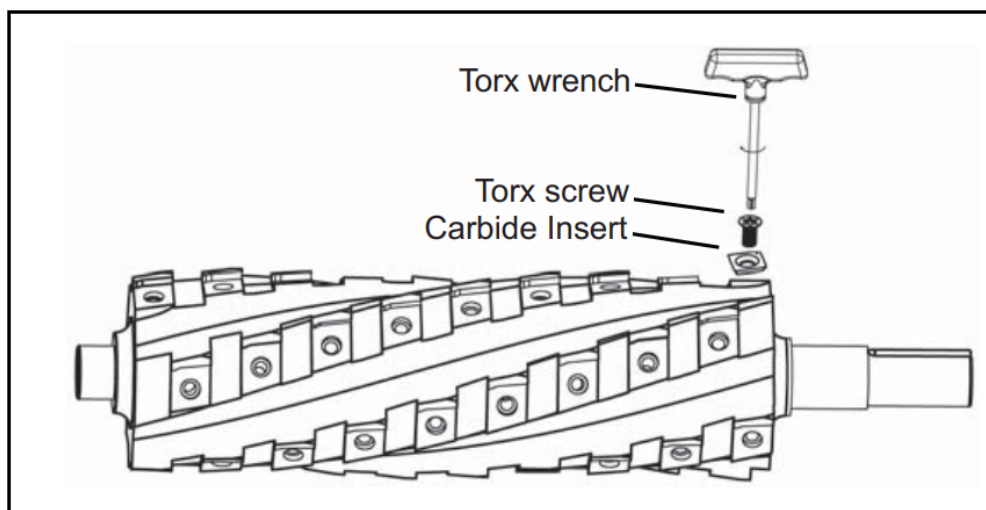


Fig 17

The use of carbide blades extends the life of the tool and considerably reduces the noise level. To ensure good performance, clean the blade holders when changing blades. The positioning accuracy is determined by the care provided when cleaning. The HM inserts have 4 sharp sides, and their dimensions are 15x15x2.5 with reduced tolerance to ensure maximum positioning accuracy.

### Relevant information

- 1 A helical shaft with inserts uses only a fraction of the shaft length at all times, whereas a conventional planer shaft uses the entire length at once. This technology makes the helical planer shaft more efficient than other types.
- 2 Although helical shafts with inserts offer some advantages over other types of planer shafts, sanding is required to achieve an even surface finish.
- 3 Cutting speed, feed rate and cutting thickness vary according to the material used. Therefore, we recommend to test a few samples first before starting a mass production.
- 4 Notched, chipped or unevenly installed carbide inserts produce raised lines, ridges or high spots on workpieces. Rotate or replace the carbide insert(s) as necessary.
- 5 Inspect the edges of the carbide inserts regularly. If the cutting surface is rough or not as good as before, turn all the inserts to get new edges.

### Installing and replacing inserts on the helical shaft (Fig. 18-19)

- 1 First, make sure the machine is unplugged from the mains; do not just turn it off.
- 2 Blow or remove wood chips or sawdust from the screw heads.
- 3 Turn the spanner counter-clockwise, remove the screw, lubricate the thread with a light machine oil.
4. Brush or blow off any chips or dust from the insert seat. Seats should be as clean as possible to avoid a breakage of the insert or cutting edges.
- 4 Turn the insert 90 degrees clockwise or insert a new carbide insert at the "start" position (Fig 19). Place the screw in the hole, turn the screw downwards with your finger.
- 5 Press the carbide insert lightly against the seat base with your finger, turn the spanner clockwise, tighten the screw, the carbide insert can be pushed towards the backrest.
- 6 Visually inspect and ensure that the insert is in place and that there is no gap between the insert and the shaft body (Fig 18).
- 7 Tighten the screws with an optional torque spanner set to 5.7 Nm (or 48-50 in pounds/inch) to achieve an even tightening.
- 8 Check the carbide inserts regularly. Replace broken inserts immediately, otherwise the planer shaft will not be balanced. Broken inserts constitute a safety hazard which may result in damaging your work.
- 9 Check the screws regularly and ensure that they are all tight.

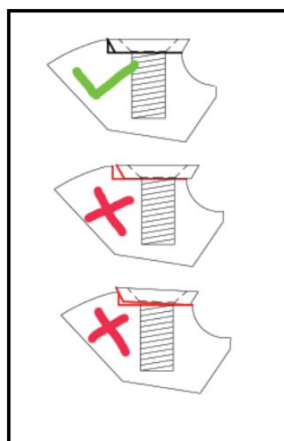


Fig 18

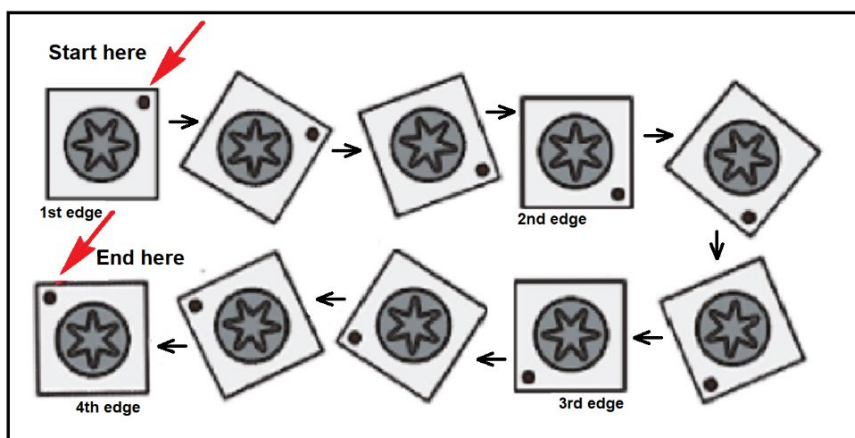


Fig 19

## Planer fence

- 1 The width position of the planer fence can be adjusted after loosening the handle (fig. 20.1 - fig. 21.1).
- 2 After releasing two handles (Fig. 20.1 - Fig. 20.2), the planer fence can be set at any desired angle ranging between 90° and 45°.

The 90° position adjustment screw is located at the bottom of the clamping plates (Fig. 20.3). The 45° position adjustment screw is located at the top of the gripper plates (Fig. 20.4).

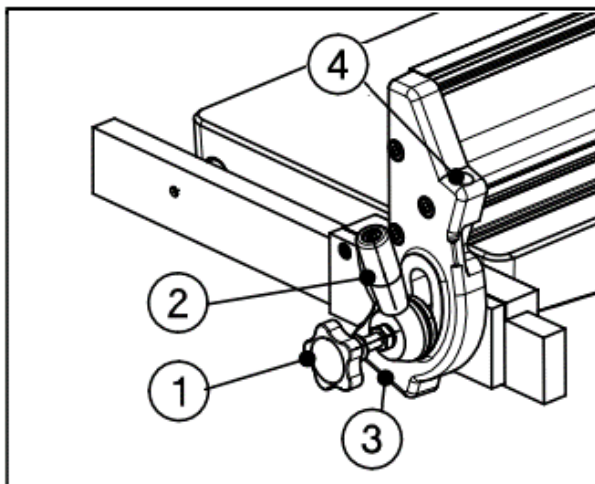


Fig. 20

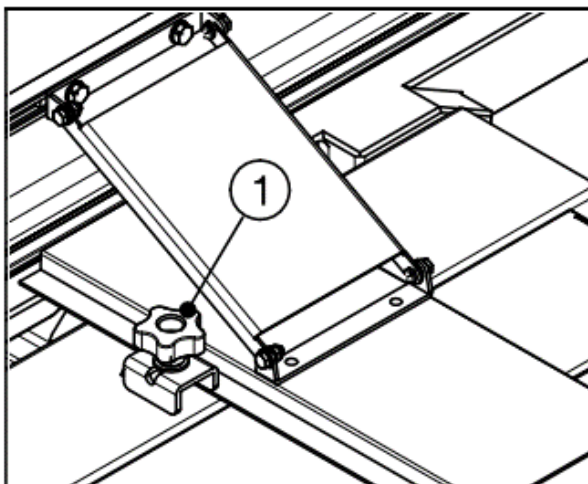


Fig 21

## Surface planing protection

The surface protection device consists mainly of an aluminium bridge, which can bear large loads and is parallel to the tables at a height of at least 100 mm. For flat planing, the height of the bridge can be adjusted in a single process using the knob (Fig. 24.1). This positioning is not inflexible. The flattened shape of the bridge enables the workpiece to be pushed onto the planer shaft (Fig. 24) with the left hand in a smooth movement, thus avoiding marks due to a repositioning of the workpiece.

The bridge is moved sideways by loosening the knob (Fig. 24.3). To plane straight workpieces at 90° or 45°, the guard is placed on the surface table and the bridge is moved along the longitudinal axis of the spindle axis and along the width of the workpiece. For specific operations or to open the surface tables, it may be necessary to fold the guard under the table. To do this, loosen the lever (Fig. 24.2) and fold down the complete guard (1). They must always be replaced when planing!

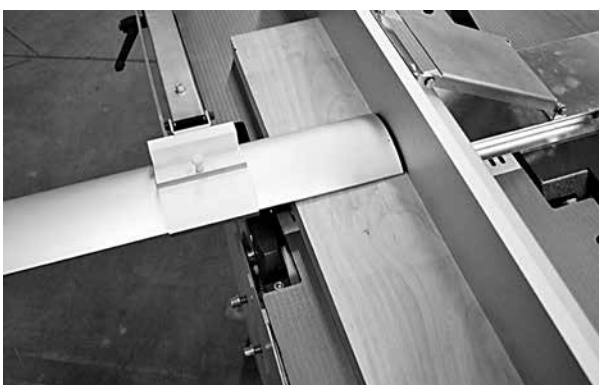


Fig. 22

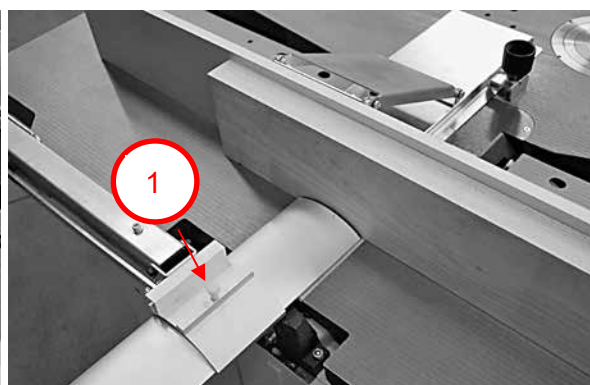


Fig. 23



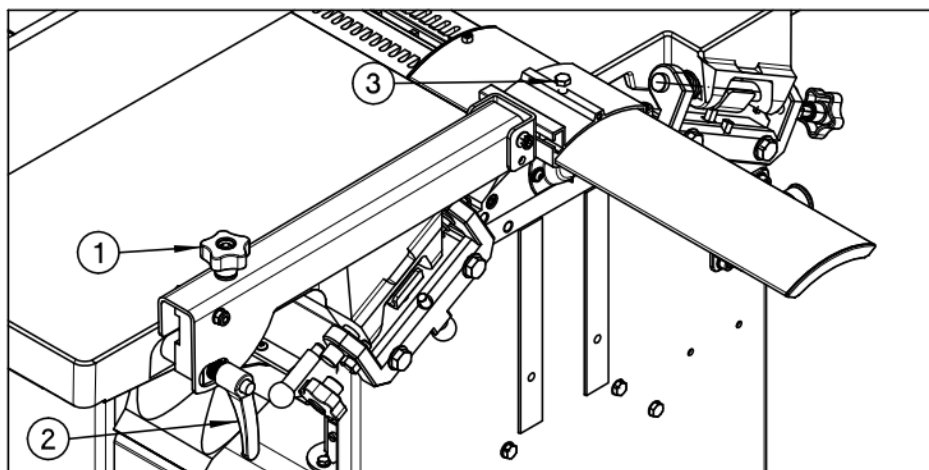


Fig.24

### Thicknesser

If present, remove the bit from the mortising head and check that the planing blades are correctly positioned and engaged.

Unlock the tables by turning the lever (Fig. 11.1) half a turn and pulling it backwards, thus tilting the tables. This process will open the table.

Turn the protective cover over so that it covers the planer shaft and the feed rollers (Fig. 25).

### Setting the thickness to be planed (Fig. 25)

1. Set the planing thickness using the handwheel (Fig. 25.1) and lock the table with the lever (Fig. 25.2) which is the handwheel.  
If, after repeated use, this lever is in such a position that it cannot be tightened, loosen the cap nut, pull the lever back, turn it one-sixth of a turn to the left and retighten the nut.
2. The table height should be adjusted so that there is a maximum gap of 1 mm between the top of the workpiece and the connecting rod between the two ball bearing housings.
3. The thicknesser is equipped with a kickback protection.
4. The feed rollers can be engaged by pushing the lever (fig. 25.4) to the left. The drive wheel is then pressed against the planer shaft by a spring.
5. In case of overload, stop the feed rollers and the planer motor as soon as possible. Reduce the material intake before restarting the motor.
6. The thickness is read using the gauge (Fig 25.3).

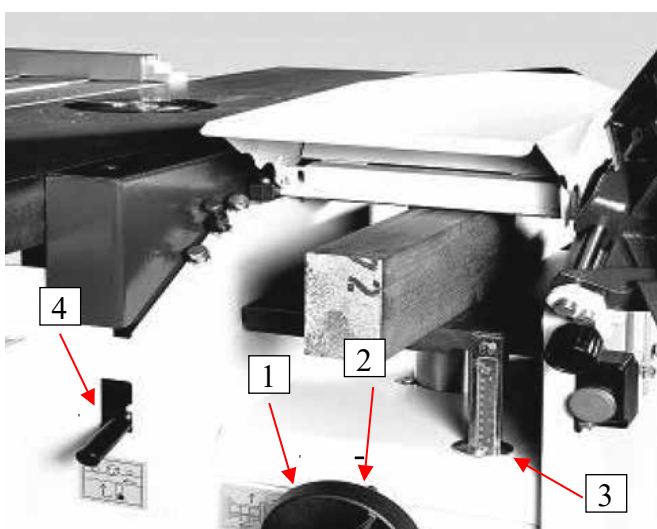


Fig 25

### Important

A smooth table surface is necessary to ensure the smooth operation of the thickness planer. Therefore, rub the planer tables at regular intervals with a silicone or paraffin-based product. Use a stand to support long pieces of wood.

# Mortiser (available as an option)

## Precautions to be observed

1. Always place the guard on the planer shaft.
2. Use only left-handed flat mortise bits, preferably short bits.
3. Always tighten firmly.
4. Always secure the workpiece to the drill table using the wood clamp (1).
5. An additional adjustable stop (2) can be placed behind the workpiece.

## Installing the mortiser (fig. 26)

- 1 Clean the 2 mounting surfaces (1) on the side of the frame.
- 2 Clean the mounting surfaces of the bracket (2).
- 3 Mount the bracket (2) on the mounting surfaces and on the bolts with their washers and springs (3).
- 4 Check that the mortiser is correctly positioned on the bolts, then tighten it.

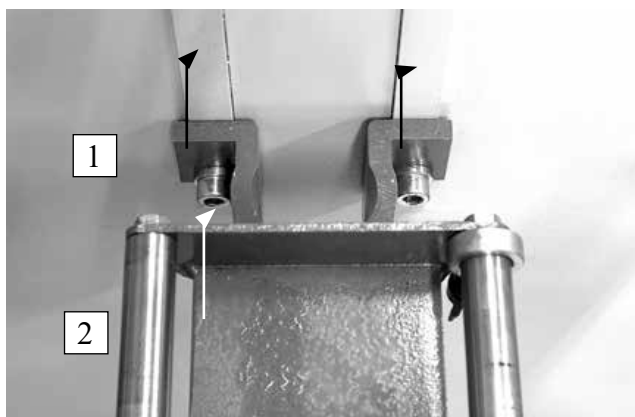


Fig. 26

## Height adjustment (fig. 27)

- 1 The height of the mortising machine can be adjusted using the handwheel (1). Lock the table with the lever (2). One rotation is equivalent to a 4mm adjustment.
- 2 Two levers located on the table enable to move the table in all directions.
- 3 The longitudinal travel is achieved with the lever (3), the crosswise travel with the lever (4).
- 4 The lever can constitute a major difficulty when processing large sheets. Therefore, this lever can be removed very easily.
- 5 The depth stop (5) and both length stops (6) enable several identical holes to be made.
- 6 When drilling deep holes, it is recommended never to drill straight through, but to work stepwise (e.g., every 10 mm); this will give a better and safer result.
- 7 When drilling longitudinal holes, first drill the necessary holes side by side to the correct depth. When moving the table crosswise, do not drill directly to the full depth, but work stepwise.

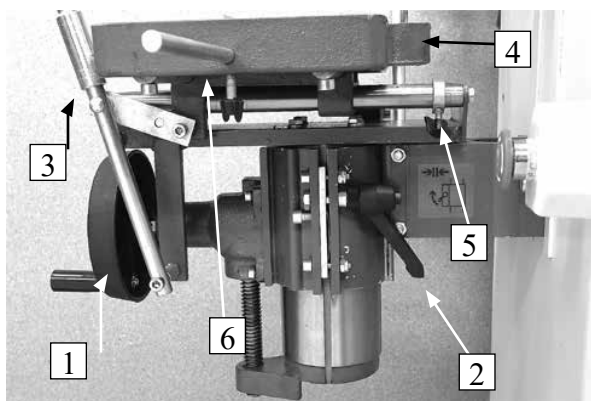


Fig 27

## Protecting the planer shaft during drilling (fig. 28)

The shaft guard mounted on the machine protects the operator during drilling. Always make sure that the hand guard is folded down to prevent hands from coming into contact with the rotating tool. The

planer fence can also be fully slid to the drill head so that the shaft is completely covered with the protective plate which is located at the back of the planer fence.

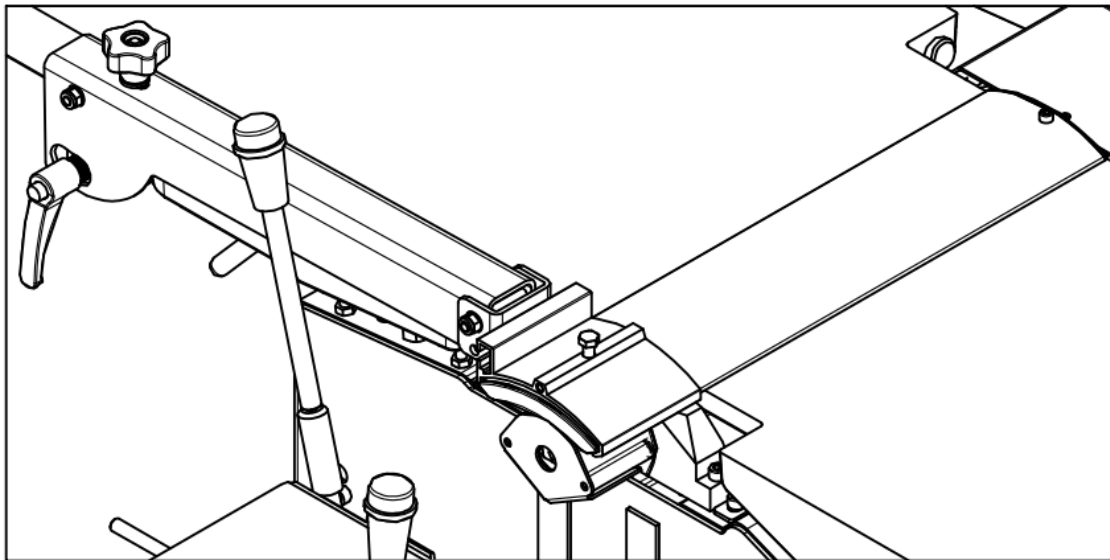


Fig. 28

### ***Installing the planer shaft during drilling (Fig. 29)***

Make sure that the threads of the drill head and the threads of the planer shaft are perfectly clean before installing them.

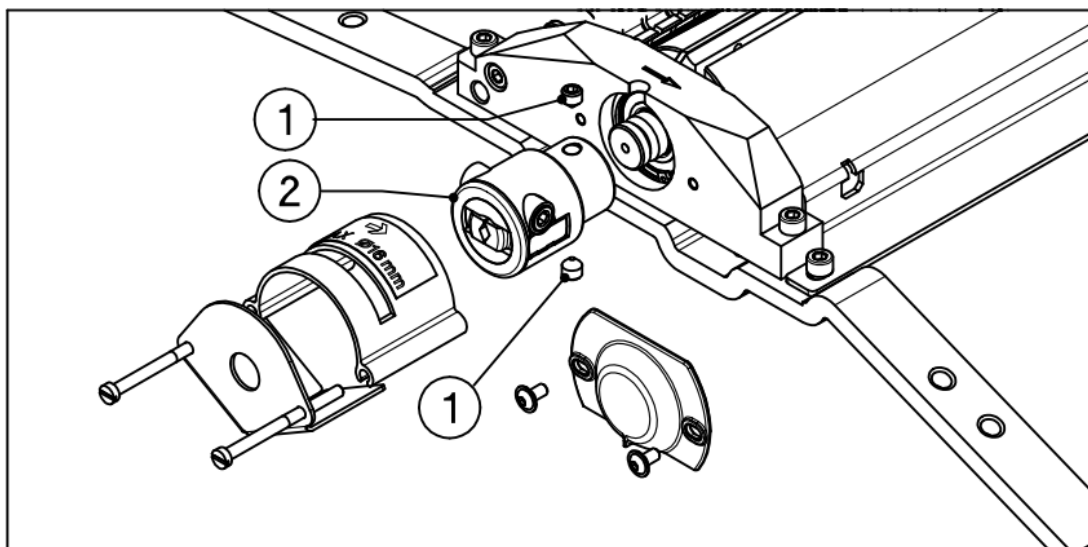


Fig. 29

**Caution:** the mortising head has a left-hand thread M24 x 1.5!

Screw the drill head completely onto the planer spindle, then position the 2 pressure screws (fig. 29.1) using the Allen key supplied with the machine. These pressure screws must be well positioned in the spindle groove to prevent the drill head (fig. 29.2) from accidentally coming off.

# Maintenance

## **General maintenance**

The planing and thickening tables should be cleaned regularly with a silicone-based product.

At regular intervals, blow out the dust that accumulates between the cooling fins of the motor. To do this, simply remove the plate under the electrical control panel to access the motor.

## **Maintenance of the drive system (Fig. 30-31)**

In the case of frequent use, it may be necessary to adjust the tension of the drive belts. The tension of the 2 drive belts of the planer motor can be adjusted by loosening the 4 motor fixing screws. The weight of the motor is lowered and the belts are tightened.

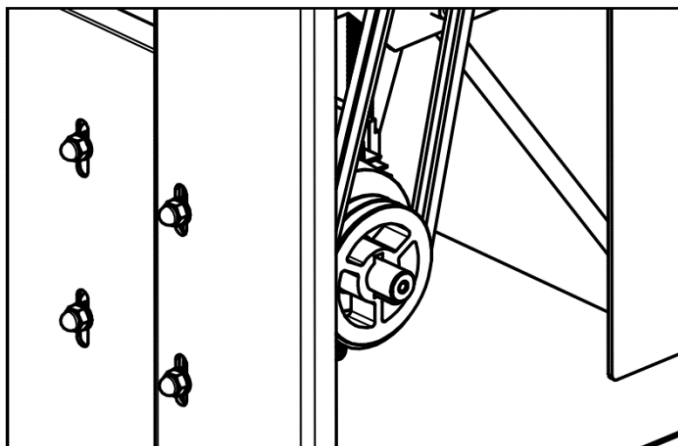


Fig 30



Fig. 31



## Lubrication

1. The machine is equipped with 2RS-type ball bearings (with double rubber seals). They are therefore dust-tight, which means that they can get slightly warmer than conventional ball bearings. This is however not a problem.
2. To ensure proper operation of the machine and to inhibit rust formation and thus moving parts from getting jammed, the following parts must be lubricated regularly:
  - the axes of the planing and thicknessing tables;
  - the drill table screw and sliding surfaces for crosswise, longitudinal and vertical travels;
  - the chains of the drive system (to reach them, remove the protective plate in which the electrical control panel is mounted).

Use SAE 30 type oil for lubrication. Chains should be lubricated at least once a year. All other parts should be lubricated once a month.

Note: When working with wet wood, the machine must be very well lubricated and maintained.

## Problems

### Causes and solutions

#### 1 The machine does not start after pressing the start button:

- The switch is incorrectly positioned: check and move it to the correct position.

#### 2 The main fuse is blown:

- Motor overload due to dull tools, excessive chip removal or to the fact that wood was pushed through the tool too fast: sharpen the tool, reduce chip removal, slow down slightly.
- Blocked component: check and clear.
- Lack of power and/or power failure: check the electrical installation.
- Defective fuses: replace the fuses.

#### 3 Speed decrease during operation:

- Belt tension: Tighten the belt. - Blunt tools: Grinding.

#### 4 Vibrations with the tools installed:

- Unbalanced blade: balance the blade.

#### 5 The planer shaft does not turn in the right direction (3 phase machine):

- Incorrect electrical connection: reverse 2 of the 3 feed wires (see Section "Electrical connection").

Please contact your dealer if you cannot solve the problem yourself or if the problem is not listed above.