Operating instructions

Table router

TF 50 E

TF 50 E

TF 50 E

Imprint

Product identification

Table router	Item number
TF 50 E	5901905

Manufacturer

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Indications regarding the copyright

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Subject to technical modifications and error.

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1 Introduction

Congratulations on purchasing your HOLZSTAR table router.

Please read the operating instructions carefully before commissioning.

They contain important information relating to proper commissioning, the intended use as well as the safe and efficient operation and maintenance of your table router.

The operating instructions form part of the table router. Always keep these operating instructions at the place where you use your table router. Please also observe the local accident prevention regulations and general safety regulations relating to the different application areas of your table router.

1.1 Copyright

The contents of these instructions are protected by copyright and are the sole property of Stürmer Maschinen GmbH.
Use of these instructions is permitted within the scope of machine use. An application beyond the described application is not allowed without written approval of the manufacturer.
Passing on as well as copying of this document, the use and distribution of its content are prohibited if not explicitly permitted.
Contraventions are liable to compensation.
We register trademark, patent and design rights to protect our products, insofar as this is possible in individual cases. We strongly oppose any infringement of our intellectual property

1.2 Customer service

Please contact your specialist dealer if you have questions about the table router or need technical assistance. They will help you with specialist information and expert advice.

Germany:
Stürmer Maschinen GmbH
Dr. Robert-Pfleger-Str. 26
D-96103 Hallstadt, Germany

Repair service:
Fax: 0049 (0)951 96555-111
Email: service@stuermer-maschinen.de
Internet: www.holzstar.de

Spare part order:
Fax: 0049 (0)951 96555-119
Email: ersatzteile@stuermer-maschinen.de

We are always interested in information and experiences that result from the application and can be valuable for the improvement of our products.

1.3 Limitation of liability

All information and notes in these operating instructions were summarised while taking applicable standards and rules, the state-of-the-art technology and our long-term knowledge and experiences into consideration.

In the following cases the manufacturer is not liable for damages:

- Non-observance of these operating instructions
- Inappropriate use
- Deployment of untrained staff
- Unauthorised modifications
- Technical changes
- Use of not allowed spare parts

The actual scope of delivery may deviate from the explanations and presentations described here in case of special models, when using additional ordering options or due to latest technical modifications.

The obligations agreed in the delivery contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations at the time of the conclusion of the contract are applicable.

2 Safety

This section gives an overview of all the important safety packages for protecting personnel and for safe, trouble-free operation. Other task-based safety notes are included in the individual chapters.

2.1 Symbol explanation

Safety instructions

The safety notes in these operating instructions are highlighted by symbols. The safety notes are introduced by signal words which express the concern of the risk.

DANGER!

This combination of symbol and signal word indicates an imminently hazardous situation which will result in death or serious injury if not avoided.

WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation that will result in death or serious injury if not avoided.

CAUTION!

This combination of symbol and signal word indicates a potentially hazardous situation which may result in minor or slight injury if not avoided.

ATTENTION!

This combination of symbol and signal word indicates a potentially hazardous situation which may result in damage to property and the environment if not avoided.

NOTE!

This combination of symbol and signal word indicates a potentially hazardous situation which may result in damage to property and the environment if not avoided.

Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for an efficient and trouble-free operation.

It is necessary to observe the safety notes quoted in these operating instructions in order to reduce the risks for personal injuries and damages to property.

2.2 Obligations of the operating company

The operating company or operator is the person who independently operates the machine for commercial reasons, or leaves it to a third party for use or application, and who bears the legal product responsibility for the protection of the user, the staff or for third parties.

Obligations of the operating company:

If the machine is used for commercial purposes, the operating company must comply with the legal working safety regulations. Therefore, the safety notes in this operating manual, as well as the safety, accident prevention and environment protection regulations applying for the area of application of the machine must be met. The following applies in particular:

- The operating company must be informed about the applicable industrial safety regulations and conduct a risk assessment to identify additional hazards resulting from the special working conditions at the machine's place of use.
  The company must include this information in operating manuals for operating the machine.
- Throughout the lifetime of the machine, the operating company must verify whether the operating manuals it has prepared correspond to the latest regulations, and adapt them, if necessary.
- The operating company must unambiguously regulate and determine the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operating company must ensure that all persons who work with the machine have read and understood this manual. Furthermore, the company must instruct the staff and inform them about hazards at regular intervals.
- The operator must provide the necessary protective equipment to the staff and order the use of the necessary protective equipment in a binding way.

Furthermore, the operating company is responsible for maintaining the machine in a technically flawless state. Thus, the following applies:

- The operator must ensure that the maintenance intervals described in this manual are observed.
- The operator must have all safety devices checked regularly for their good working order and their integrity.

2.3 Qualification of personnel

The different tasks described in this manual represent different requirements to the qualification of the persons entrusted with these tasks.

WARNING!

Danger in case of insufficient qualification of the staff!

Insufficiently qualified personnel are not capable of assessing the risks associated with machine use and may expose themselves and others to the risk of severe or fatal injuries.

- Have all works only performed by qualified persons.
- Keep insufficiently qualified persons out of the working area.

Only persons reliable working procedures can be expected from, are allowed to perform all works. Persons the responsiveness of which is affected by e. g. drugs, alcohol or medication, are not allowed to work with the machine.

The qualifications of the personnel for the different tasks are mentioned below:

Operator:

The operator is instructed by the operating company about the assigned tasks and possible risks in case of improper behaviour. Any tasks which need to be performed beyond the operation in the standard mode must only be performed by the operator if it is indicated in these instructions and if the operating company expressively commissioned the operator.

Electrical specialist:

With professional training, knowledge and experience as well as knowledge of respective standards and regulations, qualified electricians are able to perform work on the electrical system and recognise and avoid any possible dangers.

Qualified personnel:

Due to their professional training, knowledge and experience as well as their knowledge of relevant regulations the specialist staff is able to perform the assigned tasks and to recognise and avoid any possible dangers themselves.

Manufacturer:

Certain works may only be performed by specialist personnel of the manufacturer. Other personnel is not authorized to perform these works. Please contact our customer service for the execution of all arising work.

2.4 Personal protective equipment

The personal protective equipment serves to protect persons against impairments of safety and health while working. The staff member has to wear personal protective equipment while performing different tasks on and with the machine which are indicated in the individual paragraphs of these instructions. The personal protective equipment is explained in the following paragraph:

Head protection

The industrial helmet protects the head against falling objects and hitting on fixed objects.

Ear protection

The hearing protection protects against damages of hearing due to noise.

Safety goggles

The safety goggles are used to protect the eyes from flying parts.

Protective gloves

The protective gloves serve to protect the hands against sharp components as well as against friction, abrasions or deep injuries.

Safety boots

Safety boots protect the feet against crushing, falling parts and slipping over on slippery ground.

Protective work clothing

Protective work clothing is close-fitting work clothing, without protruding parts, with low tear resistance.

2.5 Safety markings on the table router

The following safety markings affixed to the table router (Fig. 1) must be observed and followed.

Fig. 1: 1 Mandatory sign (observe instructions for use / wear eye protection / wear ear protection / disconnect the plug) I 2 Prohibition sign (do not reach into machine / operation with loose clothing prohibited / operation with long hair prohibited) I 3 General warning sign I 4 Danger high voltage

The safety markings which are applied on the machine must not be removed. Damaged or missing safety markings may lead to errors, personal and material damages. Immediately replace them.

Decommission the machine if the security symbols cannot be recognised nor understood at the first glance, until the new security symbols are applied.

2.6 Safety devices

Motor protection switch

The table router is equipped with a thermal circuit breaker that switches off the motor automatically in the event of thermal overload.
The motor can be restarted once the cause of the overload has been rectified and the motor has cooled down completely.

Electromagnetic switch

The table router is equipped with an electromagnetic switch. If the power supply is interrupted, the switch moves to the OFF position. In order to start the motor, the green ON button must be pressed again.

2.7 Safety data sheets

Safety data sheets for hazardous materials can be obtained from your specialist dealer or by calling +49 (0)951/96555-0.

Specialist dealers can find safety data sheets in the download area of the partner portal.

2.8 General safety notes

This machine is equipped with various safety devices designed to protect both the operator and the machine. However, the devices cannot cover all safety aspects and absolve the operator of his responsibilities. Before operating the machine, you must have read and fully understood this chapter. The operator must also consider other aspects of the hazard relating to environmental conditions and the material.

Please observe the following points:

Before connecting the machine to the mains power supply, make sure that all the safety devices are placed in their active positions and are functioning correctly. Should you ever need to remove the protective covers, always switch off the machine and disconnect the plug beforehand.

- Always use the table router and tools in a dry environment and make sure that the working environment is clean. Operating the machine in explosive and highly flammable locations is prohibited.
- Provide for sufficient illumination.
- Protect the table router from environmental influences and do not leave exposed to direct sunlight or rain.
- Keep children and persons who are not familiar with the table router away from your working environment.
- Do not overload the machine! It works better and more safely within the specified power range.
- Wear close-fitting clothing and remove any objects from the body that may cause entanglement in the machine. If necessary, use a hairnet.
- Always wear the necessary safety equipment (safety goggles, protective clothing, safety shoes, ear protection, etc.). Wearing non-slip footwear is recommended when operating the machine.
- Wear a helmet when working in the vicinity of overhead obstacles.
- Always wear a protective mask when handling materials that will generate dust during the working process.
- Make sure that you are standing in a stable position.
- Do not pull the plug from the socket by the cable. Protect the cable against heat, oil and sharp edges.
- Operating the machine to process wood, wood-based materials and plastics in closed spaces is only permitted together with a suitable extraction system.
- When processing long workpieces, use an additional support (table, trestles, etc.) to prevent the machine from tipping over.
- Always press the workpiece firmly against the work surface and fence to prevent the workpiece from vibrating or twisting.

- Keep your cutting tools sharp and clean to ensure safer, more efficient working progress.
- Follow the lubrication and tool replacement instructions.
- Wiring can only be inspected and repaired by a person whose qualifications adequately meet the relevant regulations and standards.
- Keep handles dry, clean and free from oil and grease.
- Only remove loose splinters, chips or trapped pieces of wood when the router is stationary.
- If the cutter jams when cutting with an excessive feed pressure, switch off the device and disconnect it from the mains power supply. Remove the workpiece and make sure that the cutter can move freely. Turn on the power again and perform the cutting operation again with reduced feed pressure.
- Always switch off the machine when not in use and disconnect the plug.
- When working outdoors, always use approved extension cables that are marked accordingly.
- Always unwind a cable reel completely prior to use.
- In order to avoid operating errors, familiarise yourself with the location of the switches before turning on the machine. Memorise the location of the emergency stop button so that you can use it immediately whenever necessary.
- Never work under the influence of illnesses that affect concentration, drugs, alcohol or medication, or when suffering from fatigue.
- Before switching on the machine, make sure that any wrenches and adjustment tools have been removed.
- Before each use of the table router, make sure that no parts have been damaged. Immediately replace damaged parts in order to avoid sources of danger.
- Never touch a rotating tool with your hands.
- Do not modify the machine.
- Do not neglect to conduct regular inspections according to the instructions for use.
- The safety devices must not be soiled, damaged, modified or removed.

3 Intended use

The TF 50 E table router is used for cutting wooden boards and strips, and offers a wide range of angle adjustment options. The router is also suitable for machining solid wood, chipboard, panels and profiles. The machine is designed for private use and must always be operated together with a suitable extraction system.

The proper use also includes observing all indications in these operating instructions.

3.1 Reasonably foreseeable misuse

Any use beyond the proper use or any other use is regarded as misuse.

Possible misuse may include:

- Using the table router to machine materials other than wood (e.g. metal or plastic).
- Machining curved workpieces.
- Using the router with parameters that are not permitted for machining wood.
- Operating the table router without the relevant fully functional safety equipment.
- Bypassing or modifying the safety equipment.
- Failing to observe the maintenance instructions.
- Ignoring signs of wear and damage.
- Allowing untrained or unauthorised personnel to perform service work.
- Operating the table router with an incomplete copy of the operating instructions.
- Storing objects on the work surface.
- Performing maintenance work on an unsecured machine.
- Machining materials that are not secured or inadequately secured.
- Handling the table router irresponsibly or carelessly during operation.
- Installing spare parts and using accessories and equipment that have not been approved by the manufacturer.
- Machining several workpieces at a time in a single working step.
- Machining oversized workpieces.
- Modifying the machine or using modified tool systems.

Stürmer Maschinen GmbH is not liable for any design and technical modifications to the table router.

Any claims due to damages because of intended use are excluded.

3.2 Residual risks

Even if all safety regulations are observed and if the machine is operated properly, there are residual risks which are listed as follows:

- Risk of injury to hands and fingers from the rotating milling spindle.
- Risk of injury from contact with live components.
- Risk of injury from flying parts.
- Danger from inhaling wood dust.
- Risk of injury from the moving tool after switching on the machine.
- Damage to hearing if ear protection is damaged.

4 Technical data

Model	TF 50 E
Supply voltage	230 V / 50Hz
Drive motor Power Protection class Rated operation type	 1.5 kW IP20 S1
Spindle speed(s)	11500-24000 rpm
Working table length	610 mm
Working table width	360 mm
Table height	311 mm
Milling spindle stroke	40 mm
Spindle mandrel diameter	6 / 8 / 12 mm
Tool diameter	max. 50 mm
Height adjustment of spindle	40 mm
Suction nozzle diameter	100 mm
Dimensions [LxWxH]	1030x360x311 mm
Weight	21 kg

4.1 Type plate

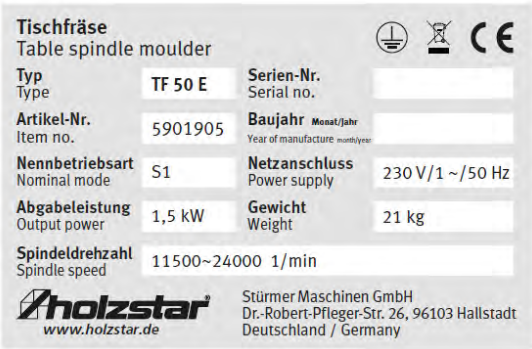

Fig. 2: TF 50 E type plate

5 Transport, packaging, storage

5.1 Delivery

After delivery, always check the table router for visible transport damage and completeness. If the table router shows any signs of damage or parts are missing, inform the carrier or distributor immediately.

5.2 Transport

CAUTION!

Risk of injury from devices falling over or falling from a forklift, pallet truck or transport vehicle.

Only use transport devices and load suspension gear that can hold the total weight of the load.

The improper transport of individual devices and packaged or unpackaged devices that are stacked on top of one another or next to one another unsecured, is liable to cause accidents and damage or malfunctions for which we cannot assume liability or provide any guarantee.

Transport the scope of delivery secured against shifting or tilting with a sufficiently dimensioned industrial truck to the installation site.

General risks during internal transport

CAUTION: DANGER OF TIPPING

The device may be lifted unsecured by a maximum of 2cm.

Employees must remain outside the danger zone and out of range of the load.

Warn employees and advise them of the hazard.

Loads may only be transported by authorised and qualified persons. Act responsibly during transport and always consider the consequences. Refrain from daring and risky actions.

Gradients and descents (e.g. driveways, ramps and the like) are particularly dangerous. If such passages are unavoidable, special caution is required.

Before starting the transport check the transport route for possible danger points, unevenness and disturbances as well as for sufficient strength and load capacity.

Danger points, unevenness and disturbance points must be inspected before transport. The removal of danger spots, unevenness, and disturbances by other employees at the time of transport presents a major risk.

Careful planning of internal transport is therefore essential.

Transport with a forklift/pallet truck:

The device is packaged in a wooden crate and delivered on a pallet so that it can be transported with a forklift or pallet truck.

CAUTION!

The machine must always be lifted and carried by two people at any one time. Hold the table router at the designated points. Lift and carry the device slowly and carefully.

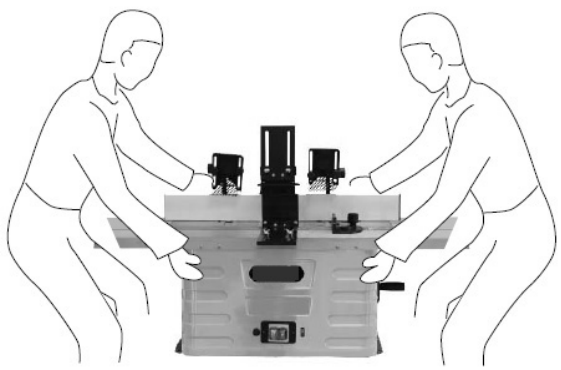

Fig. 3: Transport

5.3 Packaging

All packaging materials and packaging aids used for the table router are recyclable and must therefore always be recycled.

The delivery packaging is made of cardboard, so please dispose carefully by having it chopped up and given to the recycling collection.

The films are made of polyethylene (PE) and the upholstery parts are made of polystyrene (PS). Deliver these substances to a collection point for recyclable materials or to the waste disposal company which looks after your region.

5.4 Storage

The table router must be cleaned thoroughly prior to storage in a clean, dry, frost-free environment. Cover the machine with a protective tarpaulin.
Ambient temperature range: –25 °C to +55 °C.

6 Description of the device

6.1 Machine

Illustrations in these operating instructions may deviate from the original.

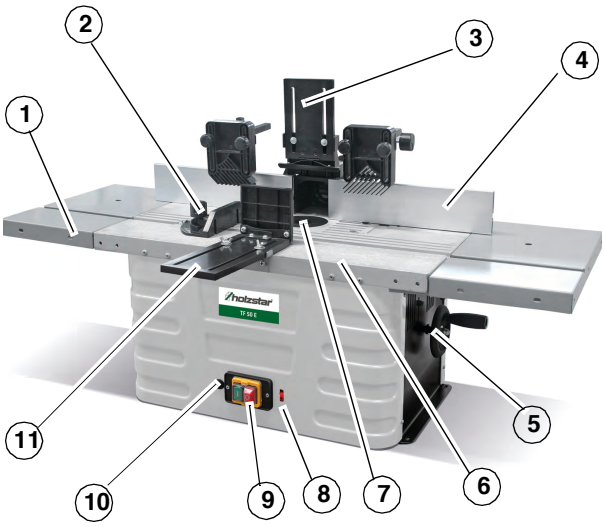

Fig. 4: Table router TF 50 E

1 Table extension

2 Angle fence

3 Top clamping bracket

4 Spindle fence

5 Height adjustment

6 Tabletop

7 Table rings

8 Speed control

9 ON/OFF switch

10 Overload protection switch

11 Side clamping bracket

6.2 Scope of delivery

- Miter fence
- Table extension
- Aluminum routing fence
- Assembly tool
- Collets for 6, 8, and 12 mm

7 Setting up and connecting

7.1 Installation site requirements

The installation site should meet the following criteria:

- The support surface must be level, firm and free of vibrations.
- The support surface must not be permeable to lubricants.
- The installation room or workspace must be dry and well ventilated.
- There must be sufficient space for operating personnel to work and handle materials as well as perform adjustment and maintenance tasks.
- There must be adequate lighting at the installation site.
- An extraction system must also be installed at the site!

7.2 Setting up the table router

CAUTION!

Risk of injury from an unstable machine!
Set up the machine on a stable surface and check that it is stable.
Pull out the mains plug before carrying out any adjustment or maintenance work!

Securing the machine

Prior to use, we recommend securing the machine to a workbench via the four holes.

Step 1: The mounting surface must be pre-drilled in accordance with the spacing of the two mounting holes.

Step 2: The machine must be secured in position using screws (not supplied). The screws must be a sufficient length: Take into account the thickness of the work surface on which the machine is mounted.

Step 3: Use the washers and nuts on the underside of the work surface to attach the bolts.

Step 4: The work surface must be large enough to prevent the machine from tipping over while working.

7.3 Installing the spindle fence

The spindle fence is dismantled on delivery. Before starting work, the fence must be assembled and mounted on the work table.

Spindle fence consisting of:
Main support (item A1, Fig. 5)
Attachment (item A2, Fig. 5)
Fence support (item B, Fig. 5)
Stop rails, 2 units (item C, Fig. 5)
Clamping bracket (item D, Fig. 5)
Suction nozzle (item E, Fig. 5)

Step 1: Assembly of parts A and B:
Push the fence support (item B, Fig. 5) into the groove on the main support (item A1, fig. 5). Then insert an M6x25 carriage bolt through the hole and screw a plastic flanged nut with washer onto it.

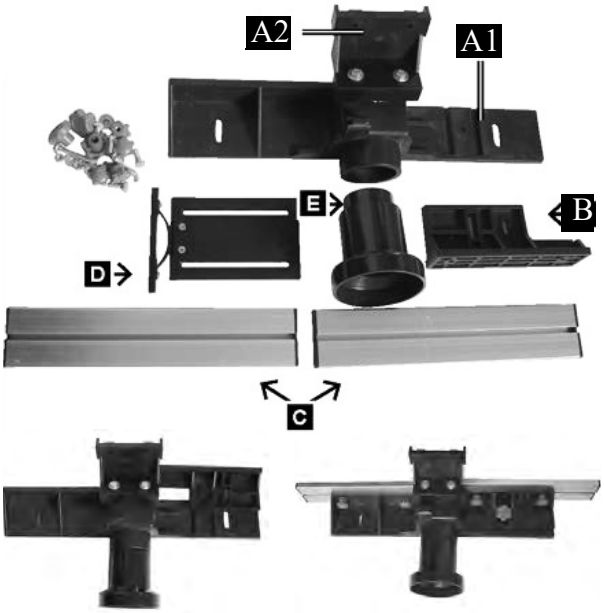

Fig. 5: Installing the spindle fence

Step 2: Install the stop rails (item C, Fig. 5). Insert two fillister screws into the mounting openings, fit with a washer a plastic cap nut, and tighten by hand. Then slide the stop rail with the groove onto the heads of the carriage bolts. Now tighten both plastic flanged nuts.
Carry out the same operation on the other side of the fence.
Make sure that the stop rails (item C, Fig. 5) are fitted in the right direction.
Make sure that the stop rails (item C, Fig. 5) are fitted at the same height as the main support and attachment (A1 and A2).

Step 3: Fit the clamping bracket (item D, Fig. 6) to the fence using 2 carriage bolts, 2 washers and 2 plastic flanged nuts.

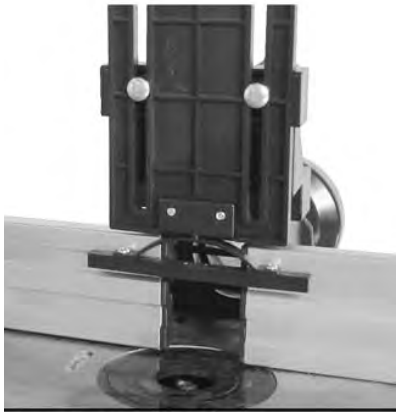

Fig. 6: Fitting the clamping bracket

7.4 Installing the pressure device

Insert the two square bolts (item H, Fig. 7) into the square tubes provided and secure using the two hexagon socket screws.
Secure the two clamps (item I, Fig. 7) on the square bolts (item H, Fig. 7) using two plastic screws. Then push the two support plates (item G, Fig. 7) through the openings in the clamps (item I, Fig. 7). Finally, screw the hold-down clamps (item F, Fig. 7) to the support plates (item G, Fig. 7) using 4 carriage bolts, 4 washers and 4 plastic nuts.

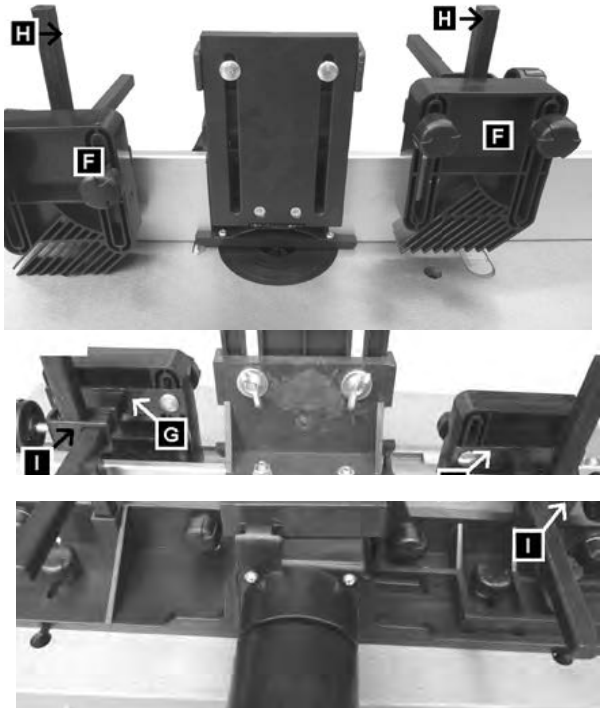

Fig. 7: Installing the pressure device

7.5 Fitting the spindle fence to the working table

Step 1: Fit the 2 screws with plastic heads together with the washers into the grooves on the spindle fence (Fig. 8).

Fig. 8: Installing the spindle fence

Step 2: Guide the heads on the plastic screws through the openings on the table grooves (Fig. 9).

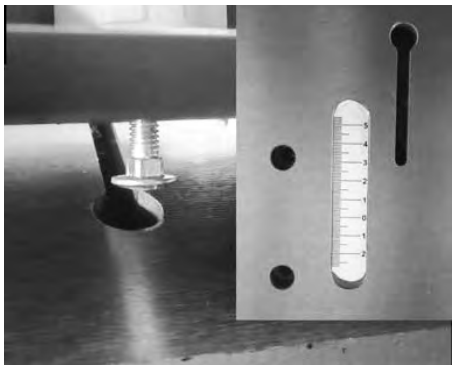

Fig. 9: Installing the spindle fence

Step 3: Adjust the router fence to the desired position and tighten the plastic head nuts (Fig. 10).

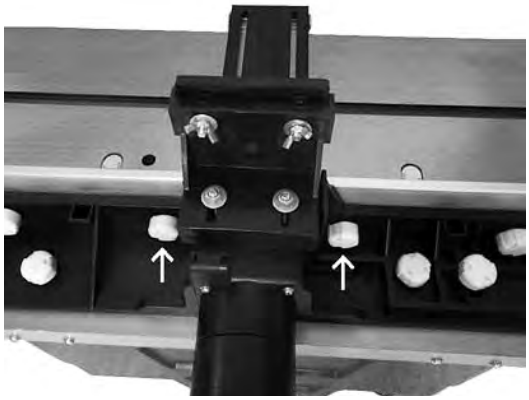

Fig. 10: Installing the spindle fence

7.6 Installing the kickback fence

Step 1: Secure the mounting bracket on the front of the machine using the two screws.

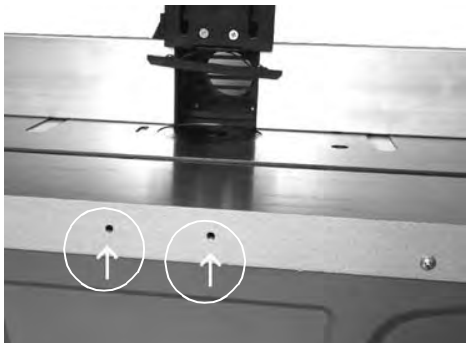

Fig. 11: Installing the kickback fence

Step 2: Insert the workpiece stop into the guide on the mounting bracket and secure with the two screws, washers and wing nuts.

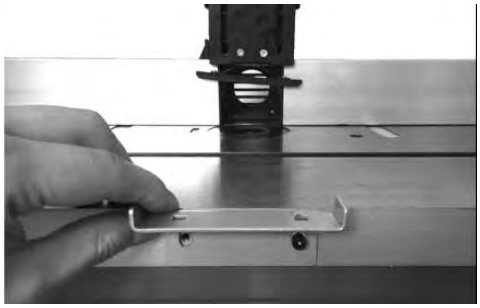

Fig. 12: Installing the kickback fence

Step 3: Loosen the two screws slightly to adjust the position of the workpiece stop. After adjusting the workpiece stop, tighten the screws again.

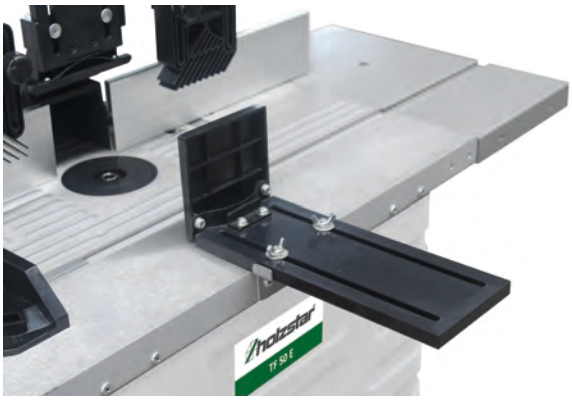

Fig. 13: Installing the kickback fence

7.7 Setting the working depth

Step 1: Turn the handle (item 6, Fig. 14) to adjust the spindle height and therefore the milling cutters to the required height.

Step 2: Secure the spindle in position by tightening the clamping screw (item 7, Fig. 14).
For your own safety, we highly recommend working with the cutters in the lowest possible position in relation to the table surface, whenever possible.

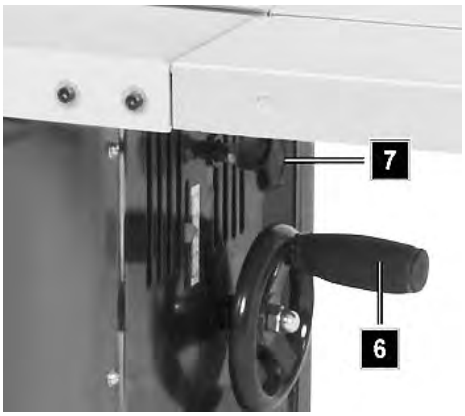

Fig. 14: Setting the working depth

7.8 Fitting table extensions

The table extensions increase the table surface to allow the user to machine larger workpieces and perform special milling tasks.

The extension table can be fitted at both the side and the front. Use the accompanying
mounting materials for this. Use four M5 x 20 screws to mount the extension on the side and four M5 x 12 screws to mount it on the front. Align the table securely in a level position and tighten all the screws.

7.9 Connecting the table router to the extraction system

A connection point is provided to connect the table router to an external extraction system (not supplied) for extracting dust and chips.

Push the suction hose on the extraction system onto the suction nozzle on the back of the spindle fence.
A conical adapter for hoses with a diameter of 100 mm is included with the machine.

Secure the suction hose using a hose clamp.

7.10 Electrical connection

ATTENTION!

Work on the electrical installation must always be carried out by a qualified electrician.

ATTENTION!

1. The machine may only be operated in combination with a residual-current device (RCD, max. residual current of 30mA).
2. If the table router is operated with an extension cable, make sure that the cross-section of the cable is correct.
Extension cables with a maximum length 25 m must have a cross-section of 1.5 mm^2, and extension cords > 25 m in length must have a cross-section of 2.5 mm^2.
3. Always unwind a cable reel completely.
Failure to do so can damage the cable reel or even cause a fire.

When connecting the cable to the power supply, make sure that the cable properties (voltage, mains frequency, fuse protection) match the information on the rating plate and for the motor.

Step 1: Check that the table router is switched off.

Step 2: Connect the machine to the mains power supply and check the rotational direction of the motor.

8 Start up

ATTENTION!

Before starting up the machine, check the electrical connection, cables and contacts.

ATTENTION!

The table router has one spindle that must be perpendicular to the horizontal surface of the table. The spindle is used to attach milling tools, discs and forming cutters.
Only cutters with a maximum diameter of 80 mm can be used on the table router. If larger diameters are required, we recommend working in
several steps and repeatedly adjusting the height using the adjustment knob, or gradually adjusting the fence.

Installing and changing the tool holder (item 3, Fig. 16)

Step 1: Before changing the tool holder, pull out the mains plug on your machine.

Step 2: Remove the table rings (Fig. 15).

Fig. 15: Installing and changing the tool holder

Step 3: Lock the spindle located below the tool holder using a wrench (item 1, Fig. 16).

Step 4: Loosen the tool holder lock nut (item 3, Fig. 16) in an anti-clockwise direction using a suitable wrench (item 2, Fig. 16).

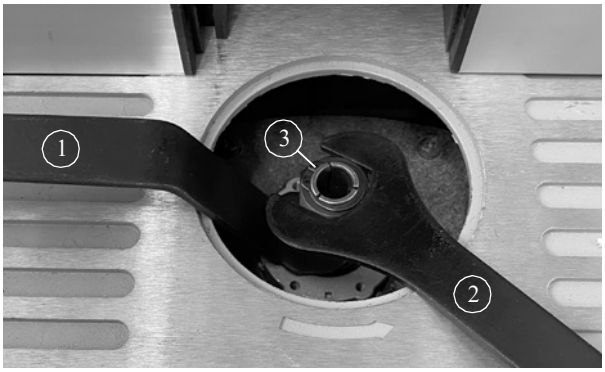

Fig. 16: Installing and changing the tool holder

Step 5: Select the correct tool holder that corresponds exactly to the diameter of the cutter and then insert.

Step 6: Tighten the nut on the tool holder in a clockwise direction
while securing the spindle in position
with the second wrench. Before using the machine, make sure that the milling element is securely attached to the end of the spindle.

Step 7: Return the table rings to their original position.

Step 8: Use the scale on the table to adjust the fence according to requirements.

Step 9: Connect the extraction system. We strongly recommend connecting an extraction system to keep the tool free of chips, cool the motor and make workpieces easier to feed into the machine.

Step 10: Reconnect the machine to the mains power supply.

Adjusting the spindle fence

Use of the fence is required.
Before starting each new application, check whether the safety devices have been correctly installed and adjusted.

Prior to each new work step, every pressure piece must be adjusted in relation to the fence.

Make sure that all screws are tightened securely before you begin milling.

Using the table rings

The table rings must be used to reduce the distance between the table and the spindle to a minimum. Before switching on the machine, carefully check that the rings are positioned correctly.

To ensure that the workpiece is guided smoothly, choose a ring suitable for the cutter and the position of the workpiece.

The table ring must fit as tightly as possible around the cutter.

9 Settings

Setting the speed

The speed (item 7, Fig. 4) of the machine can be adjusted to 6 different settings.
Determine the ideal speed by making a test cut in a piece of scrap wood.

Selecting the correct speed increases the service life of the cutter and also improves the finish quality of the workpiece.

Adjusting the fence

The stop must be adjusted to the size of the workpiece and the milling tool.

Loosen the two screws with plastic caps (item b, Fig. 17) on the back of the fence.

The fences and pressure devices should be adjusted in such a way that they ensure that the workpiece is guided safely into and out of the machine.

Step 1: Slide the fence to the required position. Use the scale (item d, Fig. 17) on the table to determine the distance between the fence and the centre of the cutter.

Step 2: Tighten the two screws with plastic heads (item b, Fig. 17) on the back to secure the fence in this position.

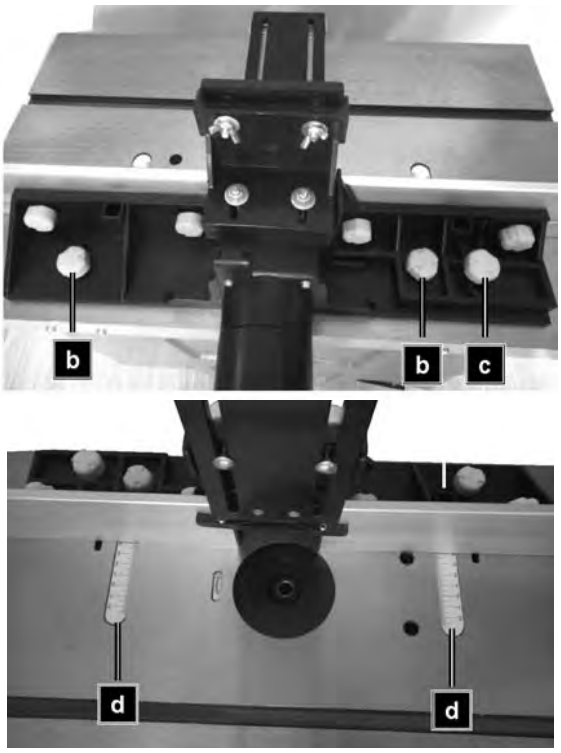

Fig. 17: Adjusting the fence

Adjusting the fence for edge milling

When milling the edges of workpieces, the workpiece will be narrower at the output end than the input end.

The stop rail must be adapted to the thinner material to ensure that the workpiece is guided smoothly and cut with precision. To do this, loosen the plastic screws (item b and item c, Fig. 17), move the fence forward by the dimension of the removed material and tighten the screws again.

Adjusting the clamping brackets

The clamping brackets (item 3 and item 10, Fig. 4) are designed to hold the workpiece in position and prevent kickbacks.

Step 1: Lower the cutter to its lowest position.

Step 2: Insert the workpiece you wish to machine and press the clamping bracket onto the workpiece with slight force.

Step 3: Remove the workpiece.

Step 4: Adjust the cutter to the required height (see: Setting the machining depth).

Adjusting the angle fence

The angle fence (item 2, Fig. 4) can be moved horizontally along the table. It is used to make edge and mitre cuts.

To adjust the angle fence to the desired angle, loosen the locking knob and turn the fence to the desired angle. Re-tighten the locking knob on the angle fence.

To make sure the settings are correct, make a test cut in a piece of scrap wood.

Switching on/off

Press the on/off button on the device to switch the device on and off.

0 - Switch off

I - Switch on

10 Operating the table router

Always observe the safety instructions and comply with the relevant regulations.

DANGER!

Risk of death from electric shock!

There is a danger of life in case of contact with current running through components. Switched on electrical components can execute uncontrolled movements and lead to severe injuries.

- Disconnect the mains plug before you start setting the machine.

The following personal protective equipment must be worn while working on the device:

Chapter 2.4 "Personal protective equipment" includes an explanation of the pictograms.

Working procedure

Step 1: Insert a suitable cutter into the tool holder and secure by tightening the nut (item 3, Fig. 16) on the tool holder.

Step 2: Adjust the speed, workpiece fence and angle fence.

Step 3: Make sure the fence on the workpiece feeder is adjusted to support the uncut material. Adjust the fence at the output point to support the workpiece you are cutting while compensating for the material being removed.

Step 4: Switch on the extraction system and the table router.
Make sure that the workpiece is pressed firmly against the fence.

Step 5: Gently slide the workpiece from right to left against the rotational direction of the tool. Maintain a constant feed rate. Pushing the workpiece too quickly will decrease the operating speed of the motor excessively and may result in a poor quality cut. If could also damage the milling cutter or the motor.
Pushing too slowly could cause the workpiece to burn. When making large cuts in particularly hard wood, you may have to perform more than one work step to remove all the necessary material. The correct feed speed depends on the cutter size, the type of workpiece material and the depth of cut. Practice first with a piece of scrap material to ascertain the correct feed rate and amount of material to be removed.

Step 6: Switch off the machine.

11 Care, maintenance and overhaul/ repair

DANGER!

Risk of death from electric shock!

Connections and repairs of the electrical equipment may only be carried out by specialized electrical staff.

11.1 Care at the end of work

Use protective gloves!

NOTE!

Never use strong cleaning agents in order to clean the device. Such cleaning agents might damage or destroy the device.
Never spray the device with water!

Step 1: Disconnect the mains plug from the socket.

Step 2: Empty and clean the extraction system.

Step 3: Clean any chips and milling dust from the machine using compressed air (caution: wear safety goggles and a dust mask!) and/or a dry cloth.

Step 4: Spray all unpainted metal surfaces with a little anti-rust spray or lubricate accordingly.

Step 5: Check the machine for damage to the safety devices and cutter. If necessary, carry out or arrange for repairs to be carried out according to the safety instructions.

Step 6: Remove any dust and dirt from safety equipment, ventilation slits and motor housings.

Step 7: Check the machine regularly for the following:

- Correct voltage,
- Loose screws, bolts and nuts,
- Worn or damaged switches,
- A worn or damaged cutter.

Cutting tool

Resin must be cleaned from the cutter, milling cutter, and cutter holder on a regular basis. Clean these parts using a suitable resin remover.

11.2 Maintenance and repair

Maintenance and repair works must only be performed by specialists.

If the table router does not work properly, please contact your specialist dealer.

Immediately reassemble all protective and safety equipment after completing repair and maintenance work on the device.

11.2.1 Extraction

Check the functional efficiency of the extraction system on a daily basis. If the extraction system does not work or only works to a limited extent, it must be repaired.

11.2.2 Lubrication

Lubricate the gears, bearings and guides regularly. Lubricate the slide rails with grease and oil the shafts.

12 Troubleshooting

Failures	Possible cause	Elimination
Machine does not switch on.	1. No mains voltage, Connection cable is defective. 2. Motor protection switch has triggered. 3. Carbon brushes worn.	1. Have the power connection checked by qualified personnel. 2. Leave the motor to cool and then attempt to start it again. 3. Take the machine to a customer service workshop.
The machine switches off automatically during operation.	Power failure.	1. Check the fuse. 2. The integral undervoltage protection prevents the machine from restarting automatically, so it must be switched on again manually when the voltage returns.
The machine stops while machining the workpiece.	Safety device has triggered due to a blunt blade or excessive feed rate.	Before continuing work, replace the cutter or wait for the motor to cool down.
The speed decreases while the workpiece is being machined.	1. Excessive chip removal rate. 2. Excessive feed rate. 3. Blunt cutter. 4. Power failure, faulty fuses.	1. Reduce the chip removal volume. 2. Decrease the feed rate. 3. Replace the cutter. 4. Check the fuses. Have qualified personnel replace the faulty fuses.
Milling pattern is not clean.	1. Blunt cutter. 2. Workpiece fed in erratically.	1. Replace the cutter. 2. Machine the workpiece with a constant pressure and at a reduced feed rate.
Chip discharge point clogged (no extraction).	1. Excessive chip removal rate. 2. Blunt cutter. Wood is too wet.	1. Reduce the chip removal volume. 2. Replace the cutter.

13 Disposal, recycling of used devices

In your own interest and for the benefit of the environment, please always dispose of any machine components at designated and approved facilities.

13.1 Decommissioning

Immediately decommission used machines in order to avoid later misuse and endangering of the environment or of persons.

Step 1: Eliminate all environmentally hazardous operating materials from the used device.

Step 2: If required, disassemble the machine into easy-to-handle and usable components and parts.

Step 3: Supply the machine components and operating materials to the provided disposal routes.

13.2 Disposing of electrical devices

Please note that electrical devices contain a large number of recyclable materials as well as environmentally hazardous components.

Please ensure that these components are disposed of separately and professionally. In case of doubt, please contact your local municipal waste management authority.

For the recycling process, please request the assistance of a specialized waste disposal centre if required.

13.3 Disposal of lubricants

The manufacturer of the lubricant makes the disposal instructions for the used lubricants available. If necessary, request the product-specific data sheets.

13.4 Disposal via municipal collection facilities

Disposal of used electrical and electronic components (Applicable in the countries of the European Union and other European countries with a separate collecting system for those devices).

The sign on the product or on its packing indicates that the product must not be handled as common household waste, but that is needs to be disposed of at a central collection point for recycling. Your contribution to the correct disposal of this product will protect the environment and the health of your fellow humans. Incorrect disposal constitutes a risk to the environment and public health. Recycling of material will help reduce the consumption of raw materials. For further information about the recycling of this product, please contact your District Office, municipal waste collection centre or the shop where you purchased the product.

14 Spare parts

DANGER!

Danger of injury by the use of wrong spare parts!

Dangers may result for the user and damages as well as malfunctions may be caused by using wrong or damaged spare parts.

- Only use original spare parts of the manufacturer or spare parts admitted by the manufacturer.
- Always contact the manufacturer in case of uncertainties.

Tips and recommendations

The use of non-approved spare parts will void the manufacturer's warranty.

14.1 Ordering spare parts

Spare parts can be purchased from authorised dealers.

Indicate the following basic information for requests or orders of spare parts:

- Type of device
- Item No.
- Position No.
- Year of construction:
- Quantity
- Required mode of dispatch (mail, freight, sea, air, express)
- Address of dispatch

Spare part orders which do not include the above indications may not be taken into consideration. If the indications regarding the mode of dispatch are missing, the product is dispatched at the discretion of the supplier.

Refer to the rating plate on the machine for information on the device type, item number, and year of manufacture.

Example

You wish to order a motor for table router TF 50 E.
The number of the motor is 5 in the spare parts drawing.

When ordering spare parts, send a copy of the spare parts drawing with marked component (motor) and marked item number (5) to the authorised dealer together with the following information:

- Type of device: **Table router TF 50 E**
- Item number: **5901905**
- Position No.: **5**

In case of service, the following drawing shall help to identify the necessary spare parts.

14.2 Spare parts drawings TF 50 E

General view

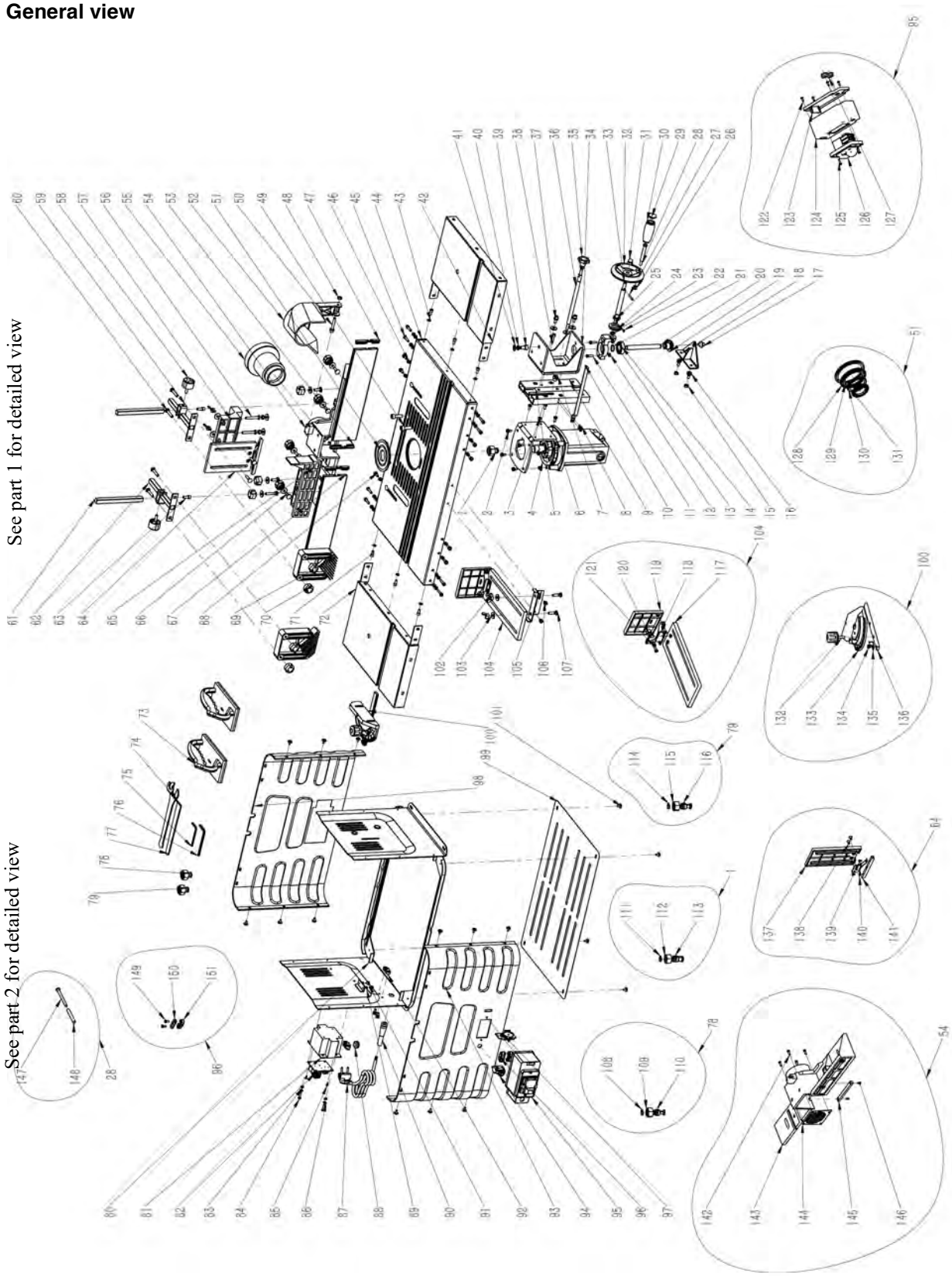

Fig. 18: Spare parts drawing Table router TF 50 E - General view

Spare parts drawing, part 1

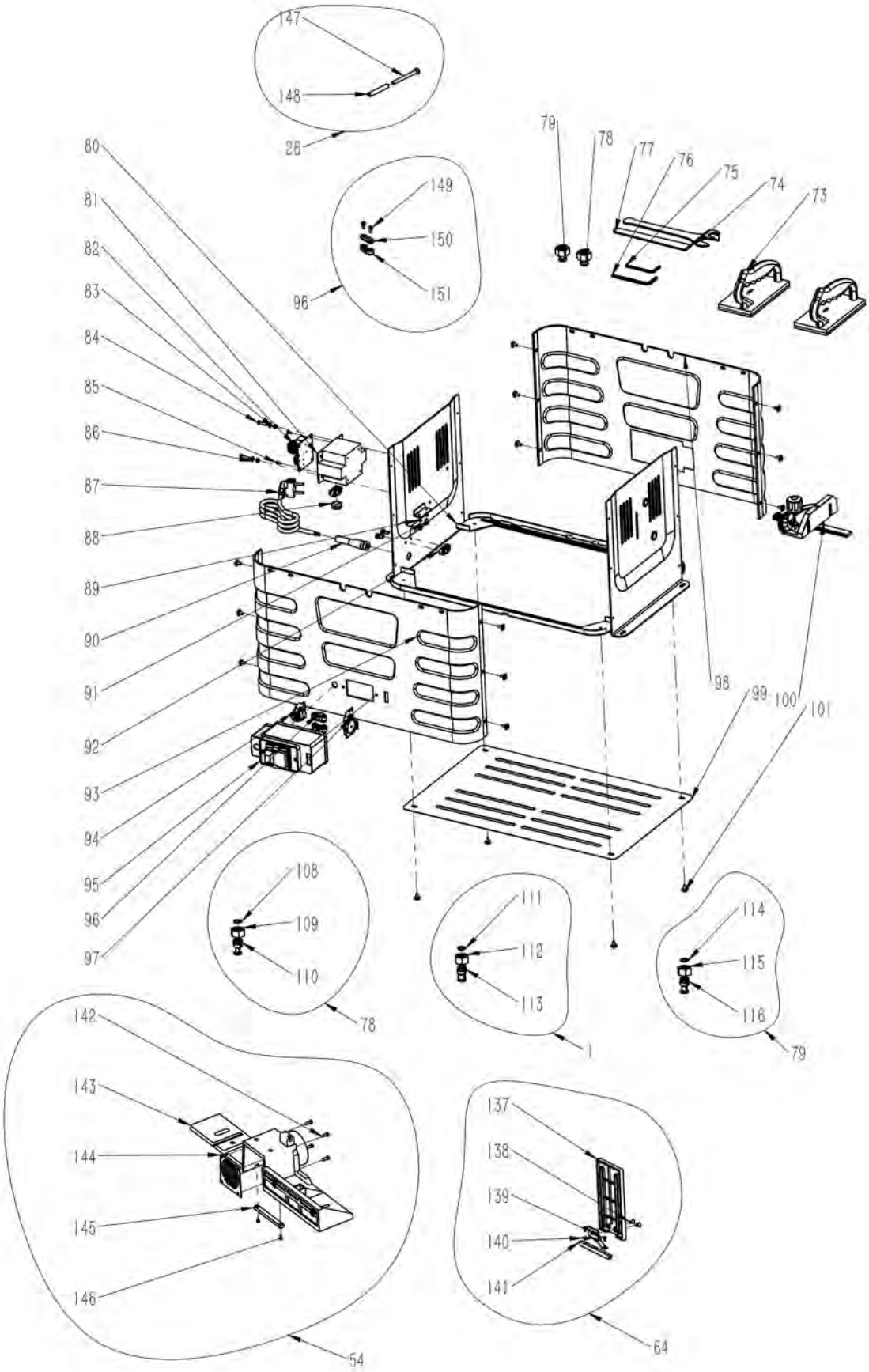

Fig. 19: Spare parts drawing, part 1