

## CONTACTS

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# uni-max

## TRANSLATION OF THE ORIGINAL MANUAL

### DRILL PRESS S-2 5A



### DPS25A

Dear Customer, thank you for purchasing a product from UNI-MAX.

Our company is ready to provide you with its services – before, during and after you purchase a product. Should you have any questions, suggestions or recommendations, please contact our place of business. We will endeavour to consider and respond to your suggestion to the highest extent possible.

**It is a legal requirement, within the sense of this user's manual, that the user confirms of their own free will that they have thoroughly studied the operating instructions, fully understand their meaning and are familiar with all the risks before the first use of the equipment.**

**ATTENTION! Do not attempt to put into operation (or use) the equipment before you are completely familiarised with the entire user's manual. Keep this user's manual for future reference.**

**Attention should be especially paid to occupational safety guidelines. Non-compliance or inaccurate implementation of these instructions may lead to injuries to the operator or other persons, or it may cause damage to equipment or the processed material.**

**Pay special attention to the safety instructions provided on the equipment's labels. Do not remove or damage these labels.**

In order to facilitate possible communication, transcribe the number from the invoice or proof of purchase here.

## DESCRIPTION

8-speed drill press equipped with a mechanical 4-gear transmission controlled using levers; range increased with 2-speed toggle switch. Drive unit with spindle and table are height-adjustable, spindle sliding mechanism is equipped with an adjustable limit stop.

## TECHNICAL DATA

Voltage .....	~ 400 V/50 Hz
Power input .....	900 W
Nominal idle speed .....	100 – 2 900 min. <sup>-1</sup>
Speeds .....	8
Max. drilling diameter .....	25 mm
Table dimensions .....	500 × 350 mm
Total height .....	1 710 mm
Spindle cone .....	3 Mk
Spindle insertion .....	255 mm
Max. distance of spindle from table .....	905 mm
Max. distance of spindle from base .....	1 210 mm
Column diameter .....	100 mm
Spindle lift .....	135 mm
Gross weight .....	180 kg

Text, graphs and data are correct at the time of printing. Due to our continuous product development process, the specifications contained in this manual are subject to change without prior notice.

## Column

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	2W07802	Base plate	10.	2IS1203	Worm gear shaft
2.	4X08300	Column L = 1 500	11.	2D20008	Spacer ring
3.	2X08723	Table arm assembly	12.	2HS1201	Cogged gear
4.	2WS1231	Table	13.	2AS1202	Shaft
5.	2X08445	Cogged rack	14.	3S04444	Stop bolt SK6SS8 × 8
6.	2T07146	Pin	15.	3R00014	Lock handle
7.	2Y08723	Table arm	16.	2N00186	Bottom ring
	2X08720-1	Worm gear assembly	17.	2103598	Cogged rack
8.	2RS1182	Handle	18.	2N03668	Top ring
9.	3R01106	Handle			

## Worm gearbox assembly

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	2N08720	Worm gear box	6.	3L00021	Washer
2.	2AS1202	Shaft	7.	2RS1182	Handle
3.	2HS1201	Cogged gear	8.	3R01106	Handle
4.	2D20008	Spacer ring 20 × 8	9.	3S04444	Bolt SK6SS8 × 8
5.	2IS1203	Worm gear shaft			

## Sliding mechanism shaft

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	4T08715	Spring bush	4.	4S04211	Bolt
2.	4C03026	Spring	5.	2E08722	Sliding mechanism lever
3.	2108708	Sliding mechanism shaft	6.	3R02003	Handle

## Spindle sleeve

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	3M06005	Nut KM5	9.	2T08386	Wedge
2.	4B00155	Lock washer MB	10.	2A08418-1	Spindle
3.	3L11005	Ball bearing 6205	11.	2T08593	Spacer ring
4.	2G08709	Spindle sleeve	12.	3B06003	Washer
5.	2108420	Cogged rack	13.	4T08547	Stopper
6.	4B03769	Washer	14.	3S08622	Bolt 16 × 25
7.	3L51006	Conical bearing 30206	15.	4T08714	Collet
8.	2TS1106	Cylindrical bearing cover			

## Electrical box

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	4U08705	Electric box cover	8.	3T18003	Rubber belt 15 × 8
2.	2L08712	Clamping bar	9.	3E06016	Commutator
3.	3E10604	Motor protection 380/50	10.	3E19088	Nut 1816
4.	2E08713	Electrical box spacer bush	11.	3E19493	Fitting
5.	4L08706	Clamping plate	12.	2T08735	Protective tube
6.	4L08711-3	Electrical box board	13.	3E10614	Undervoltage circuit breaker
7.	3E16227	Emergency shut-off switch			

## PARTS LIST

### Drill head

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	2X08700	Spindle box	8.	4U08705	Electrical box cover
2.	2X08404	Gearbox	9.	3R00014	Retaining lever
3.	2X08719	Spindle sleeve	10.	3S02556	Bolt M12 × 120
4.	2X08740-5	Sliding mechanism shaft assembly	11.	3S02558	Bolt M12 × 130
5.	2X08720	Worm gear unit	12.	3M09122	Lock nut M12
6.	2X08702	Front cover	13.	3B04178	Washer 13 × 24 × 4

### Gearbox

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.		Rotor shaft assembly	7.	2X08536	Gear selection arm
2.	2X08404-2	Second shaft assembly	8.	4RS0653-1	Gear lever
3.	2X08404-3	Third shaft assembly	9.	4C02921	Cogged gear
4.	2X08422	Gear box assembly	10.	3T04028	Metal ball
5.	4B00174	Ring	13.	4T04168	Gear changing pin
6.	4B00173	Ring			

### Rotor shaft, Motor

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	4B00137	Washer	10.	3K00187	Spring 5 × 5 × 20
2.	3L11003	Ball bearing 6203	11.	2X08405	Rotor
3.	2H07969	Cogged gear 15 – 1.5	12.	4F06203	Washer FB 6203
4.	2D17014	Spacer ring 17 × 14	13.	3L11003	Ball bearing 6203
5.	2H07972	Cogged gear 39 – 1.5	14.	2N01889	Bearing cover B – 1889
6.	2D17002	Spacer ring 17 × 2	15.	4B00175	Fan B – 175
7.	3L11003	Ball bearing 6203	16.	2B03449	Washer C – 3449
8.	4B00137	Washer	17.	4B01890	Fan cover C – 1890
9.	3K00184	Spring 5 × 5 × 14	18.	3E80103	Stator 80/2-4-70 (380 – 440)

### Second shaft

Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	4B00138	Washer C – 138	9.	3K00187	Spring 5 × 5 × 20
2.	3L11003	Ball bearing 6203	10.	2T06615	Spring C – 6615
3.	2D00009	Spacer ring 17 × 3.5	11.	2X08408	Complete gear 64 – 1.5
4.	2H07971	Cogged gear 32 – 2	12.	2T04254	Clutch C – 4254
5.	2D17038	Spacer ring 17 × 38	13.	2X08406	Complete gear 40 – 1.5
6.	2H07970	Cogged gear 15 – 2	14.	2D00009	Spacer ring 17 × 3.5
7.	2D17005	Spacer ring 17 × 5	15.	3L11003	Ball bearing 6203
8.	2A04871	Second shaft C – 4871	16.	4B00138	Cover C – 138

### Third shaft


Pos.	Cat. no.	Description	Pos.	Cat. no.	Description
1.	4B00138	Cover C – 138	7.	2X08411	Complete gear 49 – 2
2.	3L16002	Ball bearing 6302	8.	2D00006	Spacer ring 17 × 31.5
3.	3D15002	Spacer ring 15 × 2	9.	3L11003	Ball bearing 6203
4.	3C01117	Retainer ring SqA 15	10.	4B00137	Cover C – 137
5.	2X08413	Complete gear 32 – 2	11.	2T06615	Spring C – 6615
6.	2T04254	Clutch C 4254	12.	2A08410	Third shaft B – 8410

## SAFETY PRECAUTIONS

- The equipment may only be operated by persons over 18 years of age, duly qualified, informed about and trained in the principles of safety and occupational health and safety.
- The operator must be issued with a medical permit from a doctor in order to work with this equipment.

We recommend equipping the workplace with safe workplace fundamentals charts:

- "Prevent most common injuries" – DRILLS

 Symbols used in these instructions

Attention!

Indicates a risk of injury or significant material damage.

 Risk of entanglement!

Beware of injury caused by the entanglement of clothing or body parts by rotating parts.










 Warning!

Risk of damage

 Note:

Additional information

Meanings of stickers with safety symbols:

- |  |   |   |                              |
|--|---|---|------------------------------|
|   | Do not use water or foam fire extinguishers   |  | Read the manual before use   |
|   | The tool must not be used when it is wet and the tool must not be used in a wet environment |  | Use a protective face shield |
|   | Attention electrical equipment  |  | Use protective footwear      |
|   | Danger of cutting off fingers   |  | Use protective garments      |
|  | Close the protective cover before starting the machine                                      |   |                              |

Sticker markings located on the surfaces of the equipment, which are under all circumstances visible to the operator of the machine prior to it being started and while it is running.

### ! Generally

- Plastic bags used for packaging can be hazardous to children and animals.
- Familiarize yourself with the equipment, its controls, operation, elements of this equipment and possible risks associated with its incorrect use.
- Ensure that the user of the equipment has been thoroughly familiarised with the controls, operation, elements of this equipment and possible hazards resulting from its use.
- Always adhere to the safety instructions provided on labels. Do not remove or damage these labels. Contact the supplier in the event of damaged or illegible labels.
- Keep the workplace clean and in order. Untidiness in the workplace may lead to an accident.
- Never work in cramped or poorly lit areas. Always make sure that the floor is stable and there is good access for performing work tasks. Always maintain a stable posture.
- Continuously observe the workflow and use all your senses. Do not continue working if you cannot maintain full concentration.
- Take care of your tools and keep them clean.
- Handles and switches must be kept dry and free from oil and grease.

- Prevent access to animals, children and unauthorised persons.
- Do not place feet or hands into the working area.
- Never leave the equipment unattended whilst it is in operation.
- Do not use the equipment for any purpose other than that for which it is intended.
- Use personal protective equipment during work (e.g. goggles, earmuffs, respirator, safety footwear, etc.).
- Do not overexert yourself, always use both hands.
- Never operate the equipment under the influence of alcohol and drugs.
- Do not operate the equipment if you suffer from dizziness, weakness or fainting.
- No modifications to the equipment are permitted. DO NOT USE it if you discover bent parts, cracks or other damage.
- Never carry out maintenance on the equipment while it is running.
- If unusual sounds or other unusual phenomena occur, immediately stop the equipment and stop working.
- Remove any Allen keys and screwdrivers from the machine after use.
- Make sure that all bolts are tightened before use.
- Ensure proper maintenance of the equipment. Check the equipment for damage before using it.
- Only use original spare parts for maintenance and repair.
- The use of additional equipment or accessories not approved by the manufacturer may lead to injuries.
- Select suitable devices for specific work. Do not attempt to overload low-power devices or accessories with work that requires larger mechanical equipment.
- Do not overload the equipment. Organise workflow to enable effortless work at optimal speed. Any damage caused by overloading the equipment is not covered by the warranty.
- Protect the equipment against excessive heat and sunlight.
- The equipment is not designed for work under water or in a wet environment.
- When not using the equipment, store it in a dry, safe place away from children.
- Before starting the equipment, check that all safety elements are working smoothly and efficiently. Make sure that all moving parts are in good condition.
- Check whether any parts are broken or stuck, make sure that all components are properly mounted. Also check all other conditions, which may affect the operation of the equipment.
- Unless otherwise stated in this manual, any damaged parts or safety elements must be repaired or replaced.

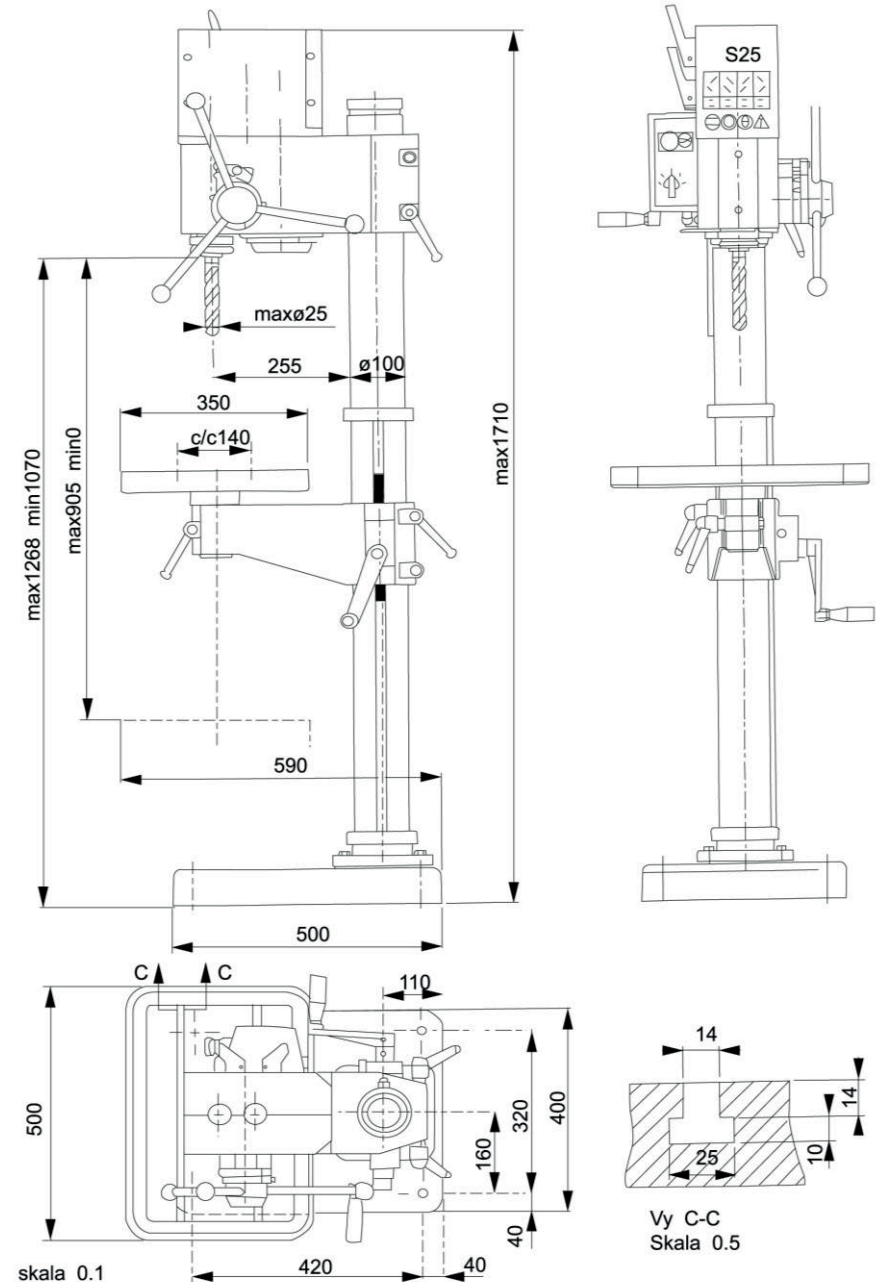
### ! Configurations

- Do not use the equipment if it has not been completely assembled according to instructions contained in the manual.

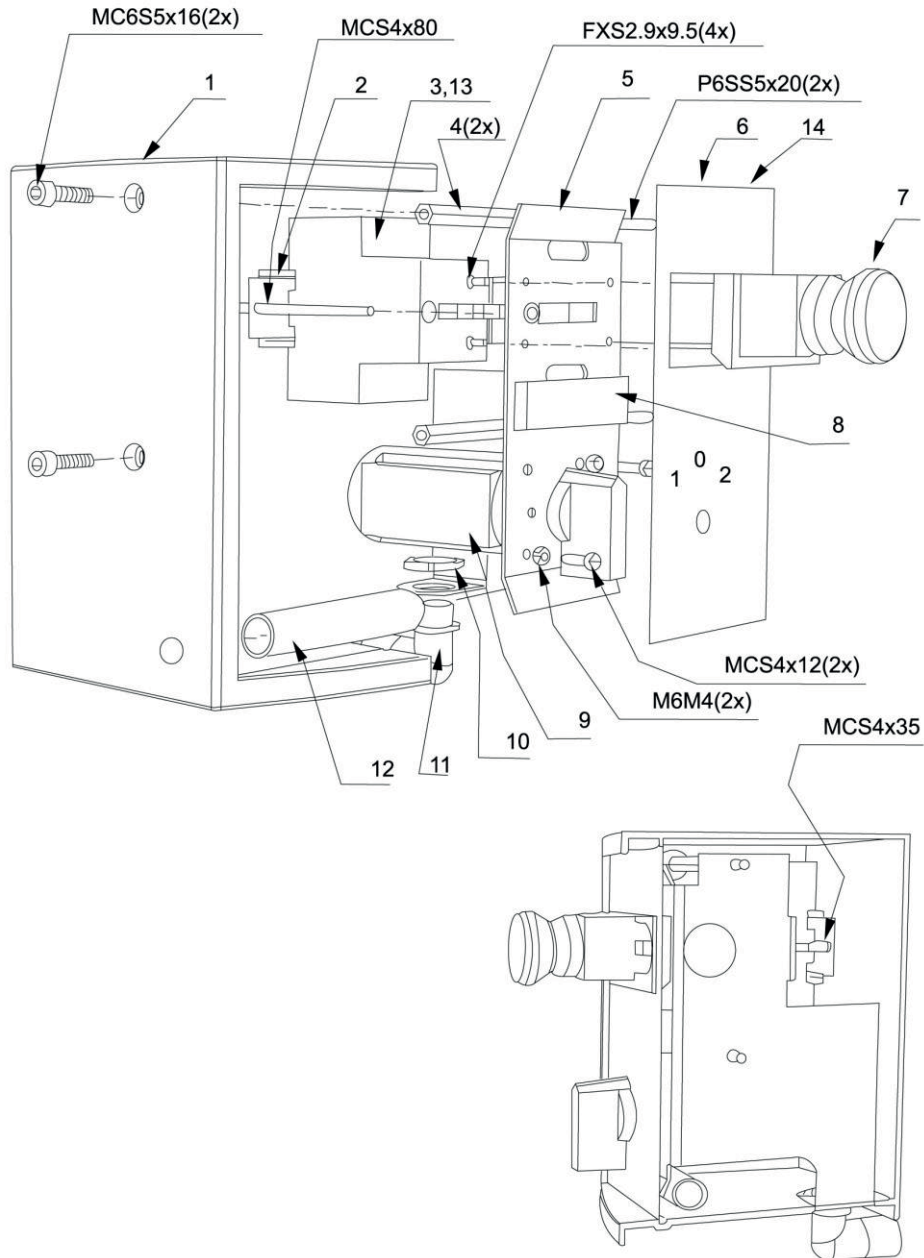
### ! Electrical equipment

- You should always follow the basic safety precautions when using electrical equipment, including the following, so that the risk of fire, electrical shock and injury to persons is reduced to a minimum. Before putting this product into operation, read these instructions and remember them.
- Ensure that the power plug is connected to a correctly fused and grounded power socket. To prevent the motor from overheating or burning up, and to avoid insufficient performance, the mains voltage must correspond to the voltage on the rating label.
- Before connecting to the mains power supply, make sure that the main switch is set to the OFF position. In the event that the equipment is not fitted with a power switch, then this function is performed using the power plug instead. After finishing work, pull the power plug out of the mains power socket.
- Never carry electrical equipment by the power cord. Do not use the power cord to pull the plug out of the power socket.
- Protect the power cord against high temperatures, oil, solvents and sharp edges.
- Regularly inspect the power cord, and in the event of its damage, have it repaired by a professional. Regularly inspect all extension cords and in the event of their damage, replace them.
- When necessary, always use quality extension cords with corresponding power parameters, fully unwound. Regularly inspect it for damage. A faulty power cord must be replaced or repaired.
- Prior to starting maintenance, installation, replacement of parts or other similar tasks, turn off the main switch and pull the plug out of the power socket.
- Take care that the equipment is prevented from starting spontaneously. Keep fingers away from the starting mechanism unless it is unconditionally necessary.
- If the equipment is to be installed on a workbench, after completing the installation, release the safety button.

### Total dimensions of the drill



## Electrical box



- Do not operate the equipment in an explosive environment (during varnishing, when working with flammable liquids, etc.).
- Do not use it in a wet environment or when the equipment is wet. The electrics are constructed for use in normal environments at ambient temperatures of +5°C to +40°C, at a relative humidity not exceeding 50% at a temperature of +40°C.
- Electrical equipment is subject to regular technical inspections at set intervals.



### ! Rotary tools

- Always wear suitable work clothing (e.g. do not wear loose clothing, ties, jewellery etc., tie up long hair behind the head, protect the feet and do not wear worn-out footwear. Shirt sleeves must be buttoned up or rolled up). Risk of getting caught or winding on to rotating parts.
- Do not remove safety covers and ensure that maximum protection is provided to the operator.
- Avoid coming into contact with moving parts during work. Keep hands away from rotating parts.

### ! Drilling

- Make sure that the workpiece being drilled is properly secured against rotation by fastening it to the drilling table.
- Prior to turning on the machine, make sure that the speed and rotation direction correspond to the tool that is used.
- Ensure that the workpiece is securely fastened to the work table. Never hold the workpiece with hands.
- When changing work tools or when cleaning the machine, check that the main switch is in position 0 (off).
- Never brush away splinters while the machine is running.
- Use flawless work tools, correct speed and the correct sliding mechanism of the work tool. Ensure that the selected work tool is appropriate for the performed task.
- Before starting the machine, check that the drill head and the drill table are securely clamped in place.

### ! Fire safety instructions

- Do not work in the vicinity of flammable compounds
-   Do not smoke or handle an open flame during work.
- In the event that there is a risk of deflected fragments or splashing of cooling fluid, always use protective glasses. Adhere to valid local regulations.

## INSTALLATION

- Before throwing away the equipment packaging, ensure that no parts remain inside it. If so, find the part in the parts list or on the assembly diagram and install the relevant part.

### Installation

- Do not install the machine in a damp, dirty and poorly illuminated location.
- Check that the machine is equipped with all essential protective elements.
- Electrical connections must be performed by a qualified electrician.
- Check that the machine is located in a stable position.
- This machine must be installed on rigid foundations.
- The base plate must be levelled using washers on the base bolts to prevent excessive stress load when tightening nuts.

### Using the machine

- Never use this machine unless it is equipped with all essential protective elements.
- Adhere to valid regulations for machine use related to personal protective products.
- Do not operate this machine in the event that you are wearing loose clothing or jewellery. If necessary, use a hairnet.
- Never reach across the machine when it is running.
- Never walk away from a machine that is running.
- Always stop the machine when it is not being used.



### Power grid connection:

The connection is made directly to a thermal overload circuit breaker or in the case of multiple spindle machines to an electrical junction box that is common for all drilling heads.

### Pay attention to the earthing bolt!

(See attached electrical connection diagram.)

### Basic instructions:

PRIOR TO PERFORMING ANY DISASSEMBLY, IT SHOULD BE STANDARD PRACTICE TO DISCONNECT THE MACHINE FROM THE POWER VOLTAGE. DURING ASSEMBLY, ENSURE THAT ALL SURFACES ARE CLEAN AND THAT ALL FLASHES (DEBRIS) CREATED DURING DISASSEMBLY IS REMOVED AS SOON AS POSSIBLE.

### Gearbox:

#### THE GEAR BOX MUST NOT BE FILLED WITH OIL.

AVOID EXCESSIVE LUBRICATION BECAUSE EXCESS OIL COULD DRIP INTO THE MOTOR AND COULD DAMAGE ITS INSULATION.

In the event that the gearbox must be disassembled:

- Screw out the four bolts that hold the gearbox to the spindle bush box. Then remove the fan cover and remove the fan from the spindle bush box. The gearbox can be taken off after gently tapping the spindle of the rotor. The gearbox which consists of two halves can be disassembled by screwing out four bolts. Now all the spindles can be taken out, which can then be further disassembled.
- When reassembling the gearbox, make sure that the gear shift pins are correctly seated in the grooves of the transmission. When installing the gearbox back on to the spindle bush box, you must check that the springs are back in their place on the spindle and that these springs properly fit into the corresponding grooves on the output shaft of the gearbox.

### Spindle:

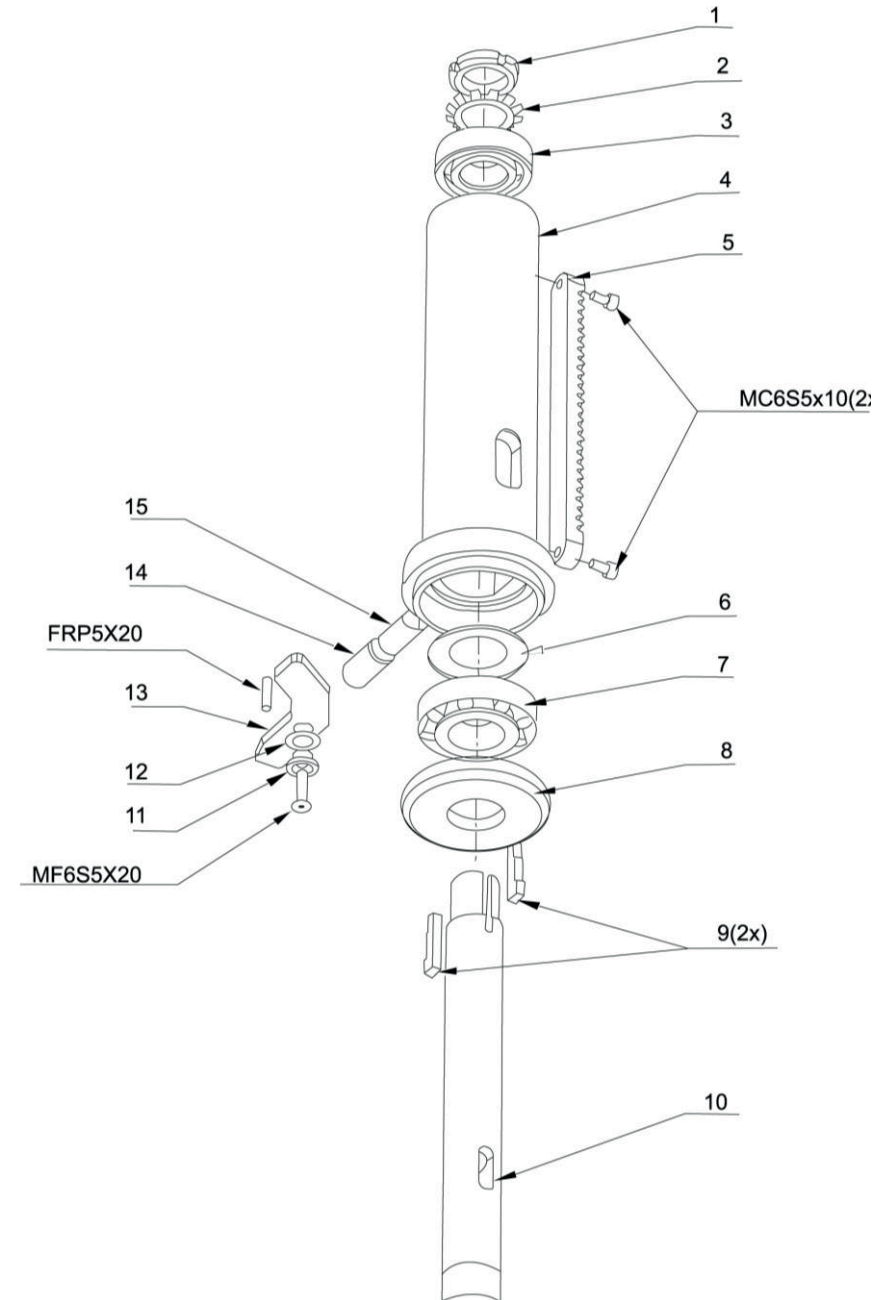
- The spindle is seated in the bottom part of the bush in a conical bearing and in the top part of the bush in a radial ball bearing. In the top part of the spindle there is a nut that is used to set the 'give' of the conical bearing. Access to this nut is gained after removing the spindle bush from the machine.
- Secure the spring bush in the middle of the box using a hex key and loosen the bolt. Allow the pressure acting on the spring to be released. The spindle bush will then automatically be lowered to the lowest position.
- Remove the limit stop and loosen the bolt that is securing the position of the shaft of the sliding mechanism.
- With one hand grasp the spindle bush and push the shaft of the sliding mechanism as far to the right as possible so that the cogs of the gear rack of the spindle bush are released. Then remove the spindle bush.
- During reassembly, the springs on the spindle must be properly seated in the grooves of the shaft of the spindle. Take care not to damage the springs when sliding on the spindle bush.

### Balancing:

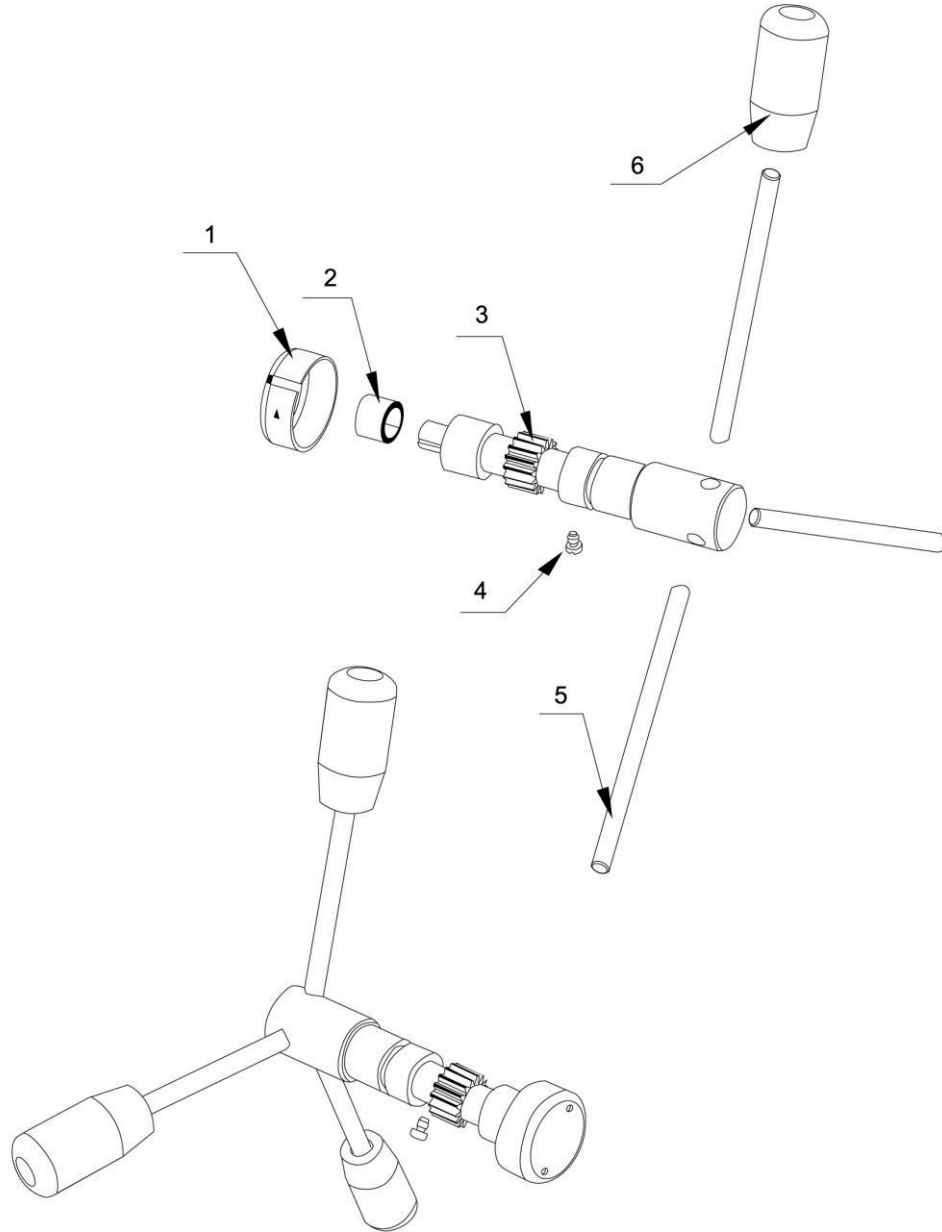
Removal of the spindle balancing spring bush is performed as follows:

- Secure the spring bush using a hex key and concurrently loosen the bolt that is securing it in place. Allow the bush to turn in order to release the pressure of the spring and then turn the spring bush clockwise until the spring is released from the bolt by means of which the spring is attached to the shaft of the sliding mechanism. Now the spring bush can be removed.
- During reassembly, push down the bush with the spring in the intended location and turn this assembly anticlockwise until the spring is seated on the bolt on the shaft of the sliding mechanism. Then turn the spring bush farther anticlockwise until you achieve the correct balance of the spindle. Then secure the bush in place using a bolt.

### Spindle sleeve



## Sliding mechanism shaft



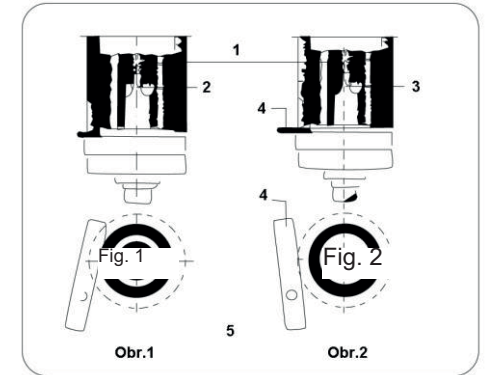
## Motor:

In the event that you need to disassemble the stator, proceed as follows:

- **DISCONNECT THE POWER CORD FROM THE MAINS POWER SUPPLY!**
- According to the instructions provided above, remove the gearbox, the spindle bush and the shaft of the sliding mechanism. Electrical conductors and the motor must be disconnected from the commutator switch. Secure the spindle bush box using the lifting mechanism. Loosen the bolt and lift the spindle bush box. Then remove the lifting mechanism for the drill head.
- The two screws located on the left part of the spindle bush box, which secure the position of the stator, are removed and the position of the stator is marked in the box. After lightly tapping the bottom part of the spindle bush box against a suitable surface, the stator will slide out of the box. Then the new stator is pressed into the box from the bottom side into the same position as the original stator.

## 'Tell' type drill drift key

- **This drill is equipped with a built in drill drift key. The mechanism and instructions for its use are described below.**
- In the event that you wish to remove a drill bit with a conical cylindrical clamping shank or chuck, pushing down the short projecting part will turn the rotating finger limit stop in the direction away from the spindle as shown in fig. 2. This enables the spindle bush unit to be raised by another 6.5 mm (1/4"). After a light tug on the sliding mechanism lever, the drill bit or chuck will be ejected from the spindle. The rotating finger limit stop is in the "IN" position, as shown in the mentioned fig. 1. In this position, the spindle bush is prevented from fully returning into the spindle bush box. In this way, during standard operation, the contact between the tang on the clamping stem of the drill bit and the drill drift key is prevented.
- It sometimes occurs, that the clamping stem of the drill bit or the tang becomes jammed in the conical clamping bush, which causes problems with their release. Do not use great force to loosen them since this could damage the spindle shaft and bearings.
- If this happens, use a standard type of drift key (driver) and during this task, lower the spindle and the spindle bush so that the groove for drifting (knocking out) is located underneath the spindle bush box.
- For the effective function of the built-in drill drift key, it is essential that the clamping stems of drill bits and chucks are fitted with standard cones and tangs. In the event that the tang is too short, the drill bit can be removed by simply using the drift key according to the method described above. In the event that the tang is too long, the drill bit can be removed even in the case where the rotating finger limit stop is in the "IN" position. This can, nevertheless, be simply remedied by grinding down the head of the tang to enable its release from the drift key.



- 1- Drift key
- 2- Clamped clamping stem of a drill bit
- 3- Released clamping stem of a drill bit
- 4- Limit stop
- 5- Drill bit drift key

## OPERATION

### User instructions

These are your instructions for operation and a list of spare parts for your drill. These materials have been prepared for persons using this drill and for persons responsible for its maintenance and servicing, and thus must be easily accessible for all specified persons.

Prior to installing and starting the machine, carefully read the entire user's manual. The machine has a simple construction and a robust design. However, we cannot guarantee its perfect operation when it is incorrectly operated.

Therefore, it is essential that you thoroughly acquaint yourself with its function and perform practical tests of the various parts of the control system and various machine settings. After you have mastered these, the features of the machine can be utilised to the maximum extent and the maximum operating lifetime of its components can be guaranteed.

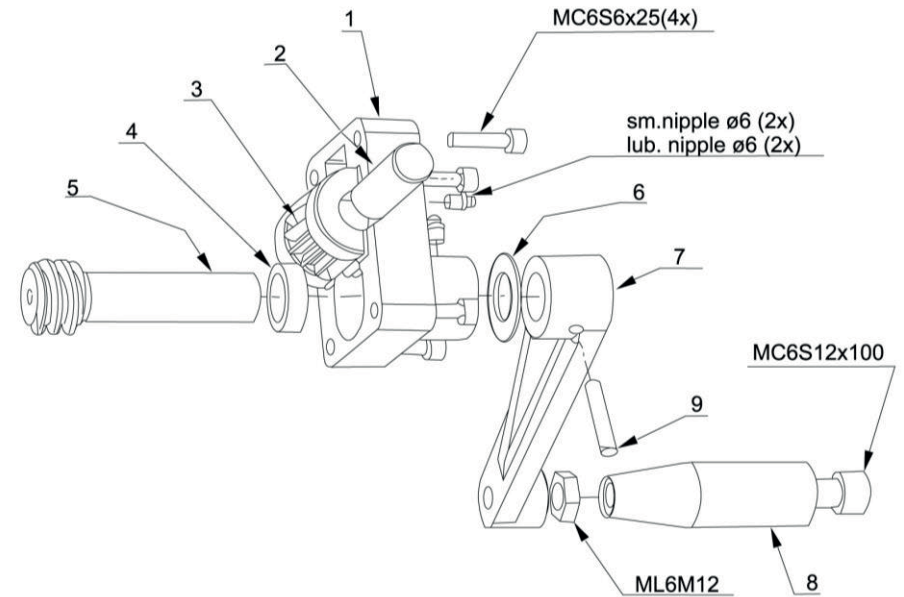
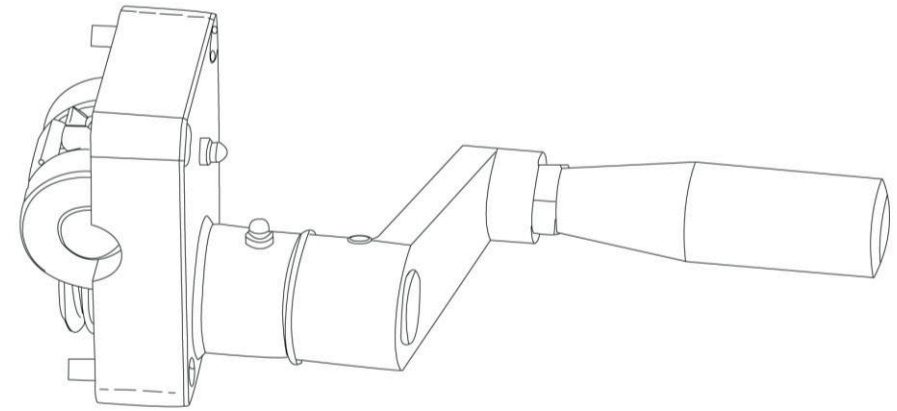
The precision and performance of each machine is tested at the factory. Experienced personnel control the mechanical and electrical functions according to a standardised program, which means that we can guarantee the highest level and quality of workmanship.

Following our instructions and your own good judgement gives us confidence that your new machine will provide you with the maximum level of satisfaction. If, nevertheless, any problem does occur, please do not hesitate to contact an authorised vendor or us directly.

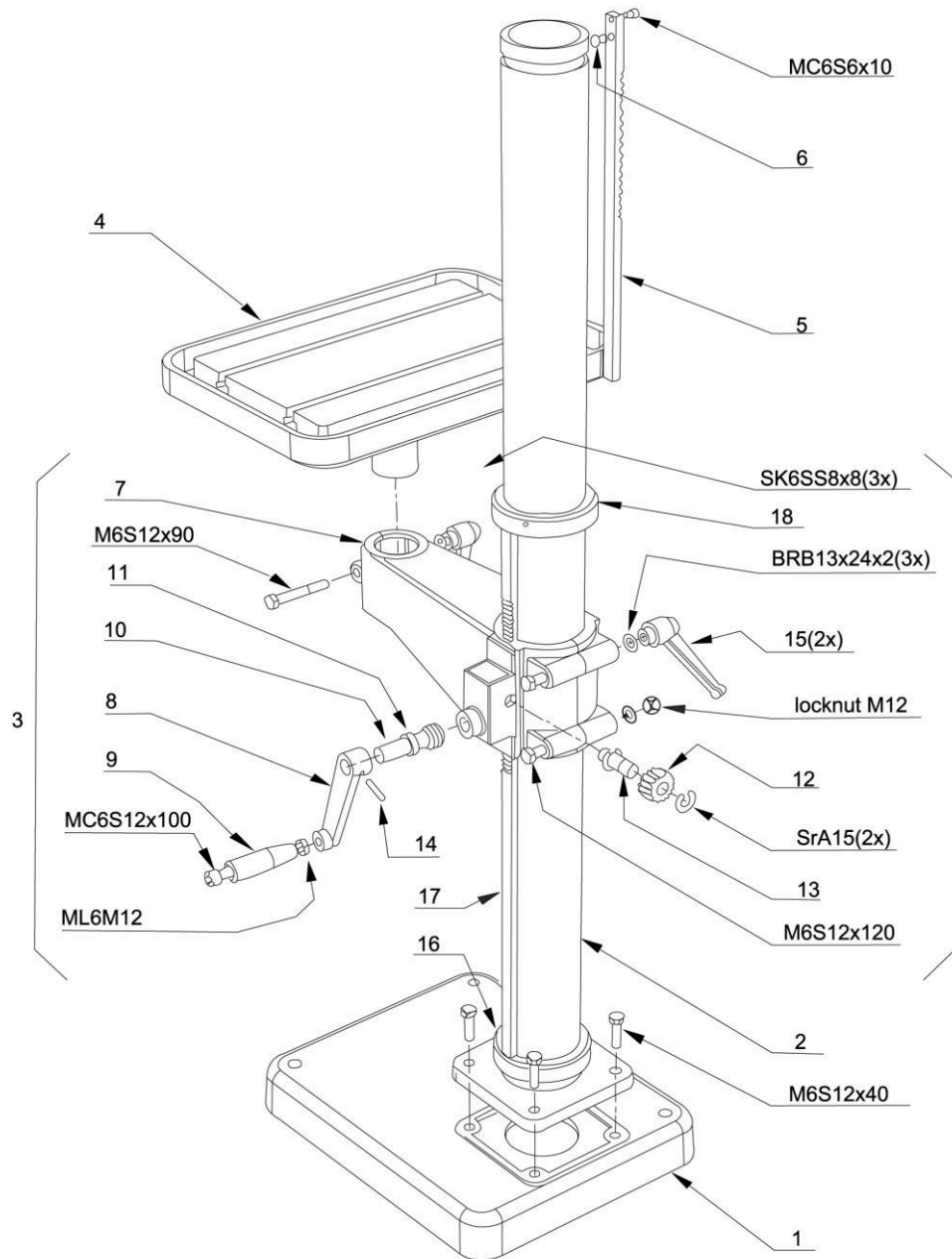
### Selecting a spindle speed:

The selection of various spindle speeds according to the label on the front part of the drive gearbox is performed using the levers on the left side of the gearbox and also using the motor's commutator switch.

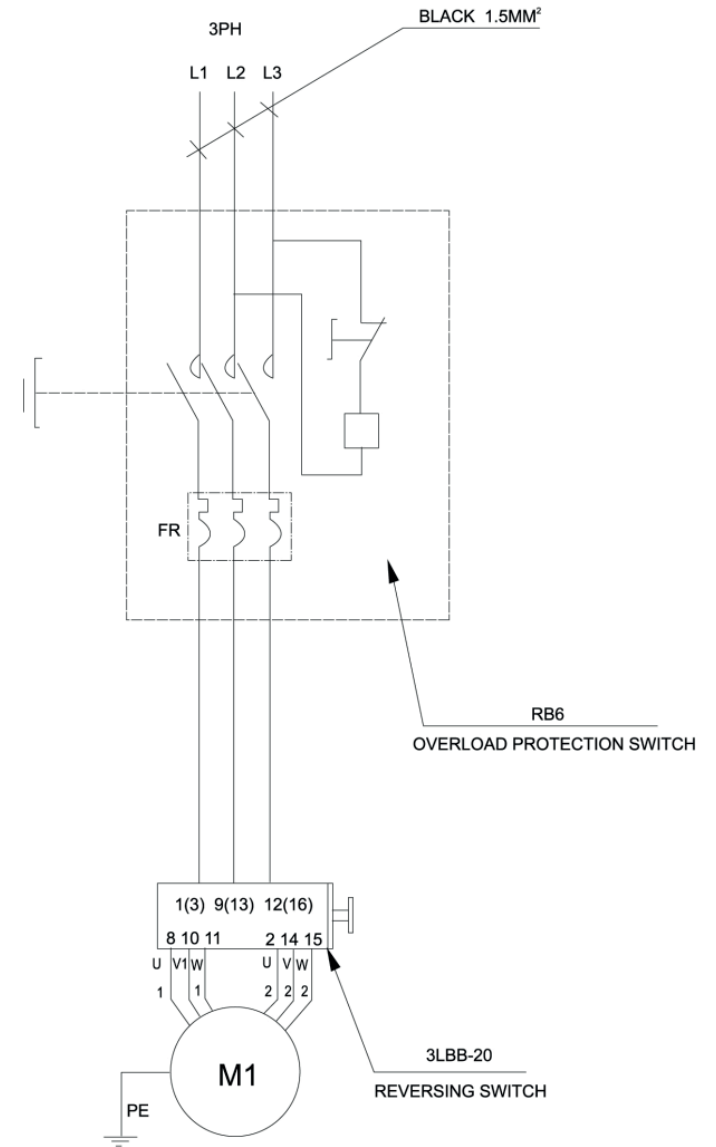
### Worm gearbox assembly







EL. WIRING DIAGRAM



## MAINTENANCE

- Always keep tools clean. Foreign material entering the tool mechanism may cause damage to the tool.
- Do not use any aggressive cleaning agents and solvents for cleaning.
- We recommend wiping plastic parts with a rag dipped in soapy water.
- Wipe metal surfaces with a rag dipped in kerosene.
- Store the unused equipment in a preserved state in a dry place where it will not corrode.
- All maintenance work must be performed only when the power plug is disconnected from the mains power supply.
- Always follow the instructions provided in this user's manual.
- Do not perform modifications to this machine without contacting the vendor.
- All maintenance works may only be performed by professional personnel.
- Only use original spare parts for repairs.

### Cleaning:

All polished parts of the machine are treated with an anti-corrosive agent. Do not use excessively aggressive cleaning products, this will ensure that it is not removed. If this were to happen, the surface coating could be damaged.

**i** **Brushes, drill bits are in terms of the legal warranty provided on goods considered to be consumables in the sense of the law.**

### Lubrication

All high-speed shafts and cogged gears are seated in ball or cylindrical bearings, and thus the machine requires only very limited lubrication.

## DISPOSAL

It is necessary to dispose of the product at the end of its service life in accordance with the applicable legislation. The product is made of metal and plastic parts that are recycled after separation.

1. Disassemble all parts of the machine.
2. Sort all parts according to the material (metals, rubber, plastics, etc.).  
Hand over the sorted material for further use.
3. Electrical and electronic waste (used electrical power tools, electrical motors, charging power supplies, electronics, batteries, ...).

Dear customer, in terms of valid waste regulations, electrical and electronic waste is considered to constitute hazardous waste the disposal of which is subject to special provisions.

It is forbidden to throw electrical and electronic waste into containers intended for the collection of communal waste.

Likewise, it is possible to hand the machine over at electrical waste disposal points. Information on collection points is available at your local city office or on the internet.

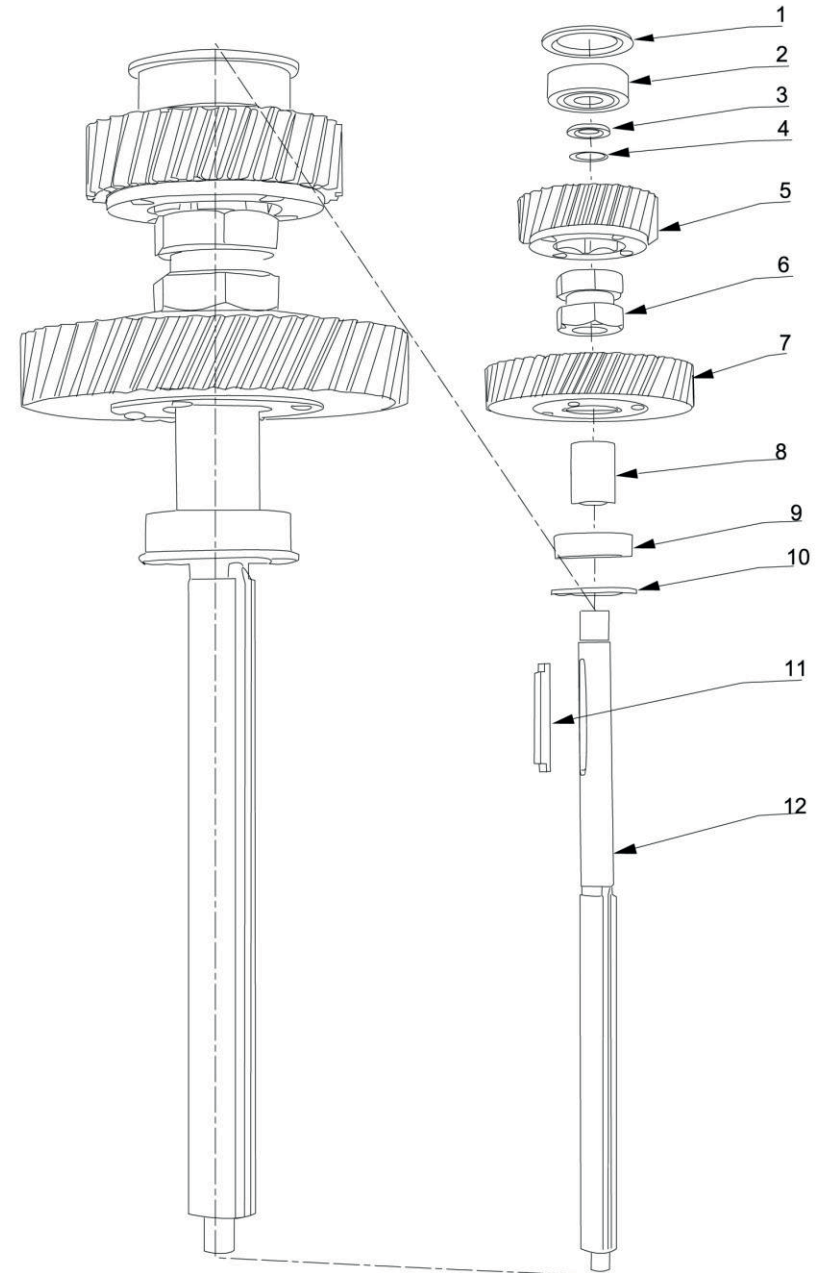
## ATTENTION

In the event of a malfunction, send the equipment to the vendor's address so that the repair can be carried out as soon as possible. A brief description of the fault will shorten troubleshooting and repair time. Include the warranty card and proof of purchase with the equipment within the warranty period. We will repair your equipment for a reasonable price after the warranty period expires.

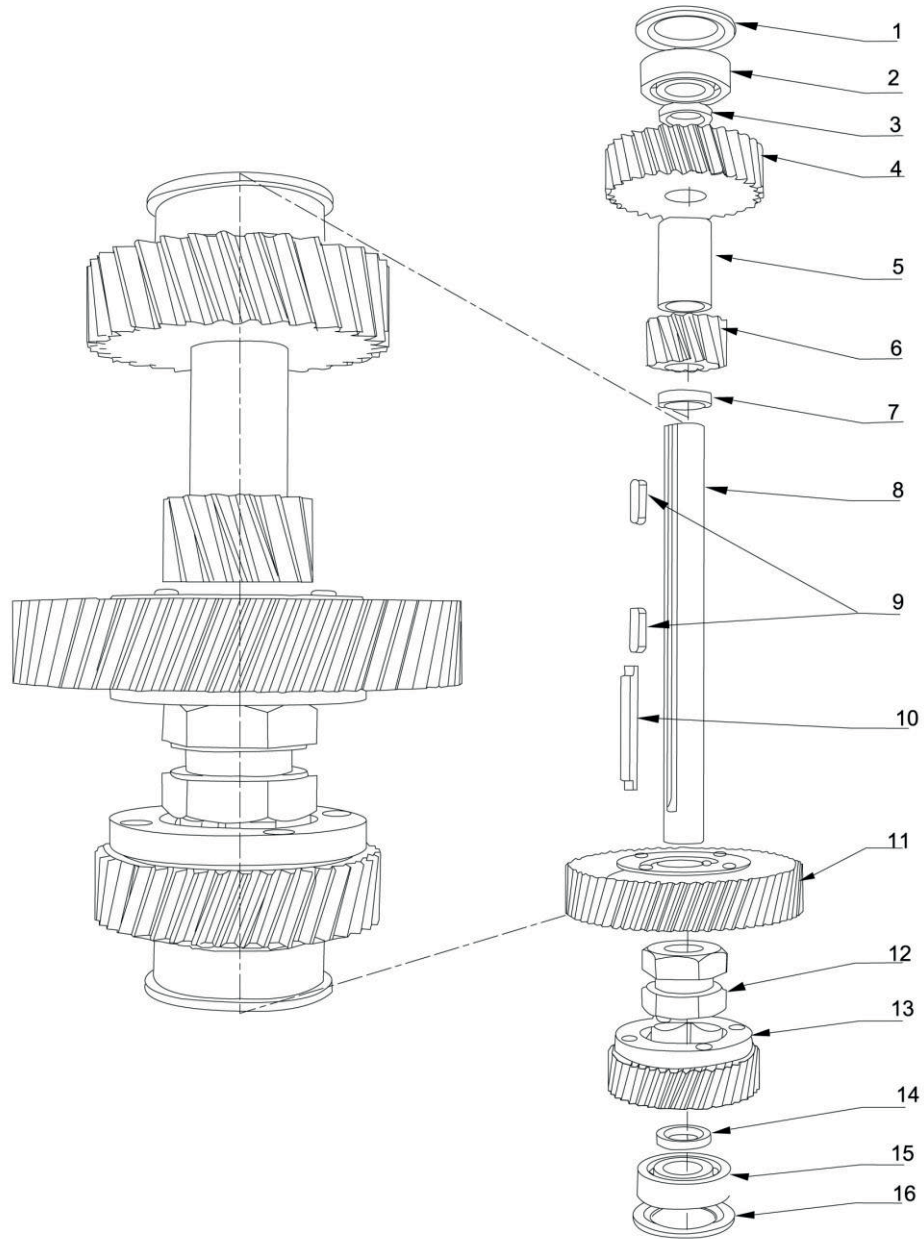
To prevent damage to the equipment during transport, pack it securely and use the original packaging. We are not liable for any damage during transit and any claims with the shipping service depends on the level of packaging and protection against damage.

Note: The illustrations may differ from the product delivered and the extent and type of accessories supplied can also vary. This is a result of development, and such differences have no impact on the product's correct functionality.

## Third shaft

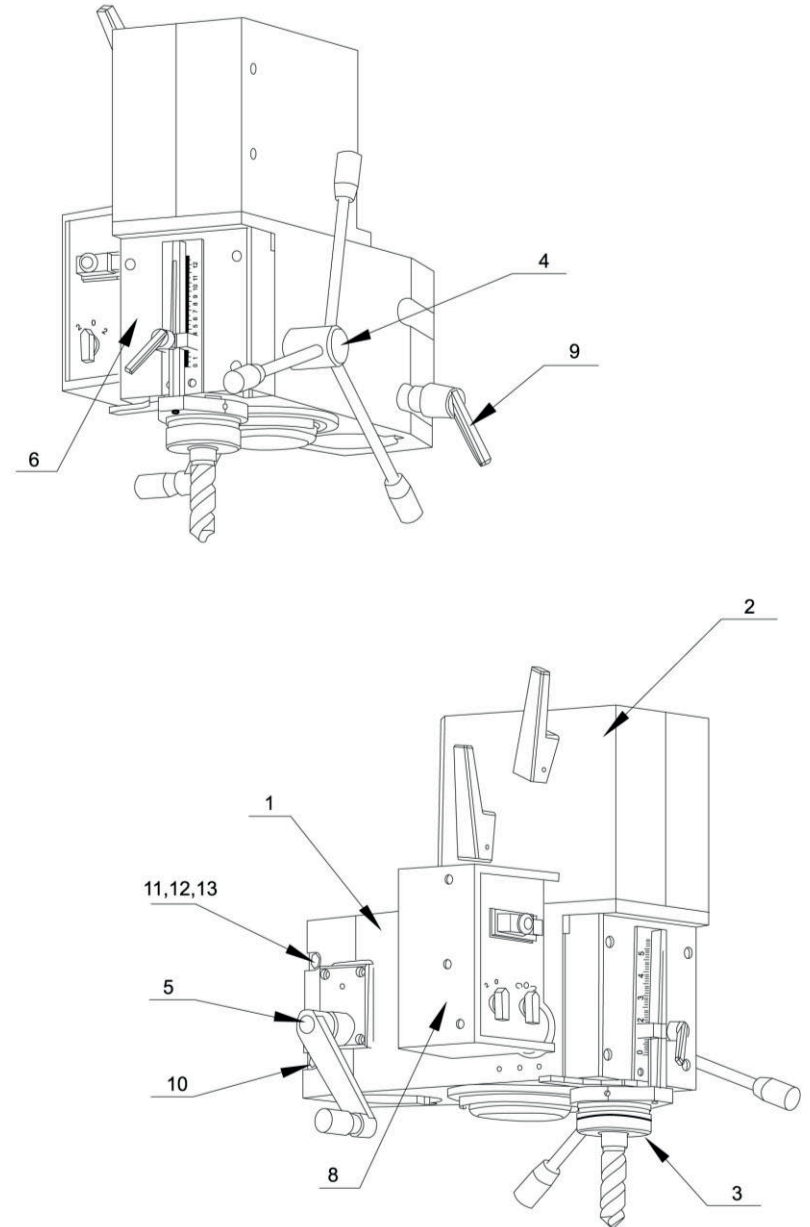


## Second shaft

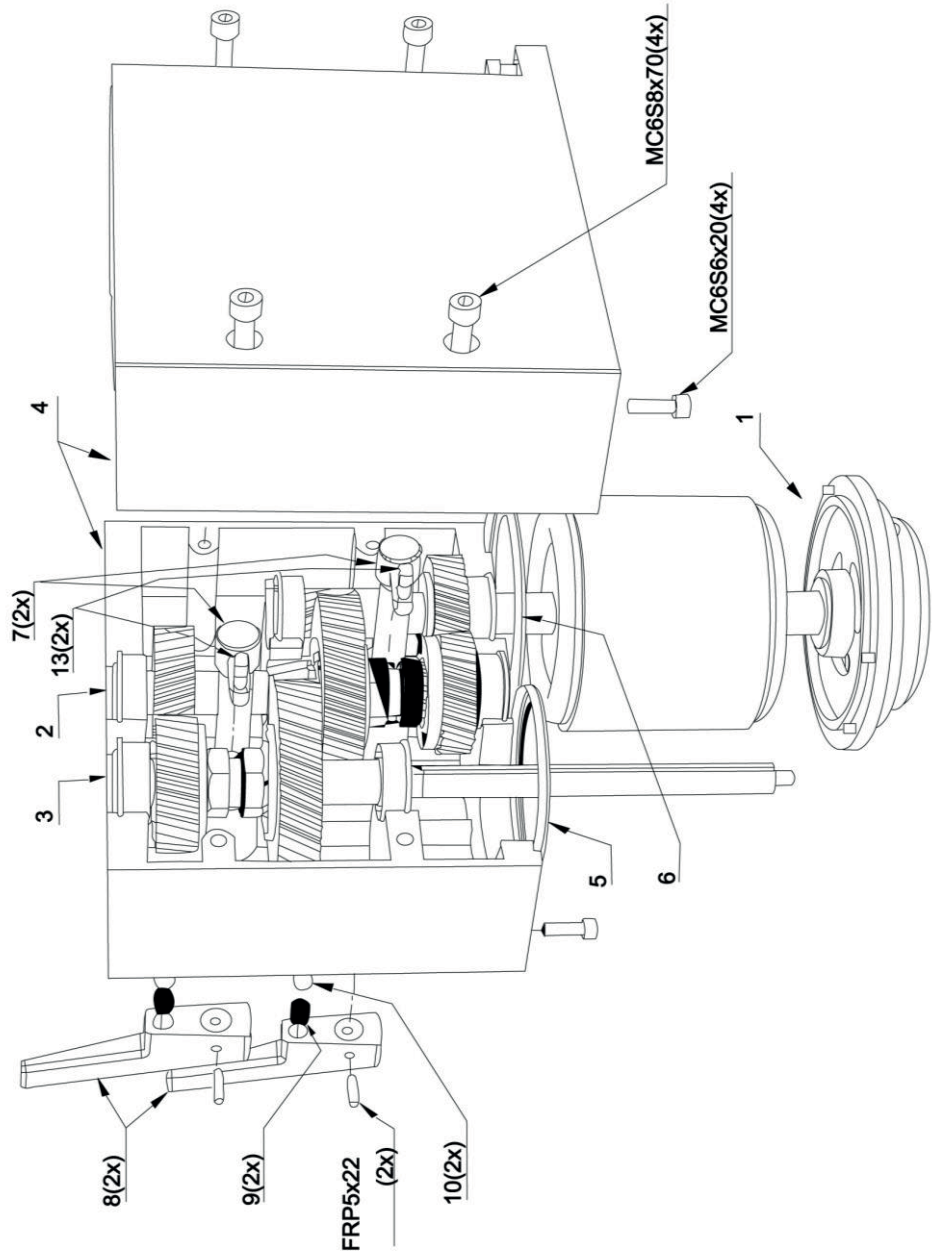


## PARTS DESCRIPTION DRAWING

### Drill head



**Gearbox**



**Rotor shaft, Motor**

