PEUGEOT PROFESSIONNELS

WARRANTY 2+2 YEARS

Get a free 2-year warranty

BENCH DRILL

PPE20

IN GOOD HANDS

TRANSLATION OF ORIGINAL INSTRUCTION MANUAL

DE / FR / PT / SP

WHO ARE WE?

Peugeot Professional Tools was born out of several obvious considerations.

The first was to combine the know-how of **Peugeot**, which has mastered the art of cutting since 1810, with the expertise of **Tivoly**, a metalworker since 1917, in order to create a wide range of machines and tools for construction and maintenance professionals.

It was also a natural step to want to serve craftsmen and small businesses driven by strong family and heritage values.

For these professionals, **Peugeot Outils Professionnels** offers machines and tools designed specifically for their needs. **These tools are reliable, durable,** and **can be repaired in France** and in countries under distribution agreements by local industrial and family partners.

Trustworthy equipment with a longer warranty, logistics, and **French after-sales service.** The assurance of dealing with the people who assembled these tools and know every part that goes into them inside out.

From exceptional projects to everyday work, these tools are designed to withstand the most demanding conditions and stand the test of time.

Peugeot Professional Tools was born out of one obvious fact: that our tools are in good hands. The hands of those who work behind the scenes and give their all to satisfy their customers.

Since 1810, many things have changed, but the hands have remained the same. The hands of enthusiasts, craftsmen, dedicated technicians and installers, workers who are proud of themselves and their achievements.

Peugeot Professional Tools: tools in good hands.

THANK YOU FOR YOUR PURCHASE.

We are delighted that you have chosen Peugeot Professional Tools. Every detail has been designed to offer you an exceptional experience, and we hope you enjoy using it as much as we enjoyed creating it for you.

Your trust is essential to us, and we are delighted to accompany you every step of the way in your experience with the Peugeot Professional Tools brand.

Your purchase comes with a 2-year warranty, extendable to an additional 2 years.

To benefit from this, register at www.peugeot-outils-pro.com

If you have any questions or need assistance, our team is available to provide you with the best possible service.

To contact our after-sales service, visit , call , or email .
+33(0)4.79.89.59.00

Thank you for choosing Peugeot Professional Tools. Your satisfaction is our priority.

CONTENTS

1 INTRODUCTION

For safety reasons, read these instructions carefully before using this machine.
Failure to follow the instructions will result in damage to persons and/or the machine.

This instruction manual is intended for the operator, adjuster, and maintenance technician.

This instruction manual is an important part of your equipment. It provides rules and guidelines that will help you use this machine safely and efficiently. You must familiarize yourself with the functions and operation by reading this instruction manual carefully. For your safety, it is particularly important that you read and observe all recommendations on the machine and in this instruction manual.
These recommendations must be strictly followed at all times when using and maintaining the machine. Failure to follow the safety guidelines and warnings in the instruction manual and on the machine and/or use other than that recommended in the instruction manual may result in machine failure and/or injury.

Please keep this instruction manual with the machine or in a place that is easily accessible at all times for future reference. Ensure that all personnel involved in the use of this machine can consult it periodically.

If the instruction manual is lost or damaged, please contact us or your dealer to obtain a new copy.

Always use PEUGEOT OUTILS PROFESSIONNELS components and parts. Replacing components or parts other than PEUGEOT OUTILS PROFESSIONNELS may cause damage to the machine and endanger the operator.

This manual describes the safety instructions to be followed by the user. It is the responsibility of the employer or user, in accordance with Article L.4122-1 of the Labor Code, to take care of their health and safety and that of other persons affected by their actions or omissions, in accordance, in particular, with the instructions given to them.
The employer must carry out an assessment of the specific risks associated with their activity, must train workers in the use of the machine and in the prevention of these risks, and must appropriately inform workers responsible for the use or maintenance of work equipment of the instructions or guidelines that apply to them.

2 PICTOGRAMS

2.1 MACHINE SAFETY PICTOGRAMS

Meaning of safety pictograms affixed to the machine (keep them clean and replace them when they are illegible or detached):


Safety footwear must be worn.


Safety glasses must be worn.


Do not wear protective gloves during machining.


Do not stop the tool by hand.
Do not touch the tool while it is moving.
Keep your hands away from the machining areas when the machine is in operation.


Do not open until the pulleys have stopped.


Electrical presence.


Hearing protection must be worn.


Read the instruction manual carefully.

Spindle rotation direction.


Do not wear loose clothing, wide sleeves, bracelets, watches, wedding rings, jewelry, ties, scarves, or any other items that could get caught in the moving parts of the machine.
Wear hair nets for long hair.

Wait until the spindle has come to a complete stop before opening the pulley cover.


Ground connection for metal parts.

2.2 PICTOGRAMS USED IN THIS INSTRUCTION MANUAL

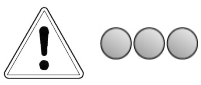

Direct danger to persons and damage to the machine


Wear protective gloves when changing tools and cleaning

✓ Note


Possible damage to the machine or its surroundings

Technical skill level: operator, user
Technical skill level: adjuster, maintenance
Technical skill level: maintenance technician


Electrical operations must be performed by personnel who are qualified and authorized to perform low-voltage electrical work.

3 SAFETY

3.1 GENERAL SAFETY REQUIREMENTS

To reduce the risk of fire, electric shock, mechanical shock, and personal injury when using power tools, follow basic safety precautions.

This instruction manual only takes into account reasonably foreseeable behavior.

Our machines are designed and manufactured with operator safety in mind.
We accept no liability for damage caused by inexperience, incorrect use of the machine and/or damage to it and/or failure to comply with the instructions and safety rules contained in this instruction manual.
As a general rule, accidents always occur as a result of misuse or failure to read the instruction manual.
We remind you that any modification to the machine will result in our disengagement.
Check the presence, condition, and operation of all guards before starting work.
Ensure that moving parts are working properly, that there are no damaged components, and that the machine is in perfect working order during start-up.
Only competent and authorized personnel are permitted to repair or replace damaged parts.

Keep the work area clean and tidy.
Ensure that the entire work area is visible from the work position.
Cluttered work areas and workbenches are a potential source of injury.
Do not use the machine outdoors, in very humid conditions, or in the presence of flammable liquids or gases.
Position the machine in a sufficiently lit work area.
The machine must not be used by young workers under the age of eighteen.
Do not allow unauthorized persons, especially children or animals, to enter the work area, touch tools or electrical cables, and keep them away from the work area.
Never leave the machine unattended while it is running. Always disconnect the power supply. Only leave the machine when it has come to a complete stop.


Do not force the tool; it will perform better and be safer at the speed for which it is designed.
Do not force small tools to do the work of larger tools.
Do not use tools for jobs for which they are not intended.


Do not damage the power cord.
Never pull on the power cord to remove it from the electrical outlet.
Keep the power cord away from heat sources, greasy areas, and/or sharp edges.
Protect the power cord from moisture and any potential damage.
Check the power cord periodically and, if damaged, have it repaired by an authorized repairer.
A defective switch must be replaced by an authorized service center.
Do not use the machine if the switch does not control the stop or start functions.


Do not overestimate your strength.
Always maintain a stable position and good balance.
Pay attention to what you are doing, use common sense, and do not use the machine when tired.
Always use both hands to operate this machine.

The use of any accessories other than those described in the instruction manual may present a risk of injury to persons.

The user is responsible for their machine and must ensure that:
The reel is used by people who have read the instructions and are authorized to do so.
Safety rules are followed.
Users have been informed of the safety rules.
Users have read and understood the instruction manual.
Responsibilities for maintenance and any repairs have been assigned and observed.
Defects or malfunctions have been immediately reported to an authorized repairer or your dealer.
The reel must be used in the areas of application described in this manual.
Any use other than that indicated in these instructions may constitute a hazard.
Mechanical and/or electrical guards must not be removed or bypassed.
No modifications and/or conversions should be made.

PEUGEOT OUTILS PROFESSIONNELS declines all responsibility for damage caused to persons, animals, or objects as a result of failure to comply with the instructions and safety rules contained in this instruction manual.

3.2 SPECIAL SAFETY REQUIREMENTS

Special safety requirements for bench drills.

Before use, the machine must be correctly assembled.
Secure the machine to a base or workbench that is sufficiently flat, level, smooth, and non-slip, so that the machine is as stable as possible.
Secure the base or workbench to a sufficiently flat and non-slip floor so that the base or workbench is as stable as possible.
Use a base or workbench with sufficient capacity.
Do not use if the unit is not placed on a flat, stable surface that is free of obstacles and well lit.
Do not operate the machine when the safety guards are removed.
Do not use the machine without the pulley cover.
Adjust the chuck guard to prevent access to the non-working part of the tool.
Fit a tool that complies with the machine's recommendations.
Ensure that the tool is firmly locked in the chuck or spindle.
Do not use damaged or deformed tools.
Ensure that the choice and rotation speed of the tool are appropriate for the material to be drilled.
Use appropriate machining speeds. The speed must be selected when the drill is not running.
Check that the pulleys are correctly aligned.
Check that the belts are correctly positioned.
Check that the belts are correctly tensioned.
Use original belts to ensure correct tension.
Do not touch the tool while it is moving.
Do not stop the tool by hand.
Always keep the tool clean.
Do not clean the tool while it is moving.
The tool can become very hot during operation. Wait for the tool to cool down before replacing it.
Always keep the work table clean and uncluttered.
Do not add additional accessories for operations for which they are not designed.
Using an inappropriate accessory can lead to accidents.
Keep hands away from machining areas when the machine is in operation.
It is not advisable to wear gloves during machining.
Reserve them for cleaning operations, when the machine is stopped, and for all operations involving a risk of cuts, burns, or pinching.
Never hold materials to be drilled by hand; secure them carefully using appropriate tools such as vices and clamping systems.
Secure a vise or the material to the table using a set of clamps.
Thin sheets of metal are the most dangerous:

- Their thinness makes them sharp.
- The tool tends to plunge when breaking through.
- Offset holes increase the risk because the material describes a circle as it rotates. Fingers, wrists, forearms, and even the chest are particularly exposed.

Use mounts and clamps:

- Support for uneven and flexible material.
- Guide for drilling small holes in a thin sleeve.

Do not start machining against the material.
Do not strike the tool against the material to be drilled, but apply gradual pressure.
Adjust the table or machining depth setting so as not to drill through the table.
Manually apply cutting fluid to cool the tool. The service life of the tool and the machining performance depend on this.
An optional lubrication system can be installed.
It is very important to prevent cutting fluid from spilling onto the surrounding area, creating a slipping hazard.
Always work in a stable position and maintain your balance.
Always wear safety glasses.
Ensure that no one is in the path of debris caused by machining.
Always keep the work area clean and uncluttered.
In all cases, remain focused on the task at hand.
For all operations involving a risk of cutting, burning, pinching, snagging, entanglement, or crushing, including loading and unloading materials to be drilled, changing tools, and handling the table, vise, clamps, and material to be drilled, stop the machine and wear protective gloves.
Rushing rarely saves time: the tool heats up, becomes blunt, and needs to be resharpened. The work is poorly done. The risk of accidents is increased.
Wear hearing protection.
If necessary, wear respiratory protection to reduce the risk of inhaling hazardous dust.
Keep the motor fan cover clean and uncovered to ensure the machine operates correctly.
Before changing the material to be drilled, a tool, or before performing any operation to position or remove material waste, stop the machine.
Disconnect the power supply for any major operations (maintenance, servicing).
Replace the table when it is worn.
Keep the machine clean and in good condition.
Remove chips regularly.
When cleaning, remove chips that may be sharp and hot while wearing protective goggles and gloves, with the machine turned off, and collect them in bins. Avoid using an air gun; instead, use a clean, dry cloth, brush, long-handled brush, hook, magnetic collector, or vacuum cleaner.
Do not immerse the machine in water or wash it with a pressurized water jet, as this may cause water to penetrate the electrical components.
Do not use solvents or aggressive detergents for cleaning.
Disconnect the machine and check that the moving parts are locked when transporting the drill.
Store the machine in a dry place out of the reach of children.

Accidents are generally the result of:

- Lack of accessories to hold the material securely in place.
- Disorder: accessories, if available, are not stored away and the operator cannot find them, so does without them.
- Inappropriate or dangerous operating procedures.
- Insufficient training, learning, and/or experience of operators in using the machine.
- Absence of protective covers during machine use.
- Ill-fitting clothing, lack of safety glasses for certain tasks.

3.3 OPERATOR PROTECTION

For operator safety, ensure that non-working parts are always covered by a protective guard.

This machine is designed for a single operator.
The operator must wear appropriate personal protective equipment:

- During use:
  - Safety shoes.
  - Safety glasses.
  - Hearing protection.
  - Respiratory protection.
- When cleaning the machine or changing tools:
  - Safety shoes.
  - Safety glasses.
  - Protective gloves.

The operator must wear close-fitting clothing and, if necessary, hair coverings for long hair.
The operator must not wear, for example:

- Loose-fitting clothing with wide sleeves.
- Bracelets, watches, wedding rings, jewelry, ties, scarves.
- Any other objects that could become caught in the moving parts of the machine.

4 DESCRIPTION AND OPERATION

4.1 INTENDED USE OF THE MACHINE

The PPE20 bench drill is a machine designed and manufactured solely for regular use (3-5 hours/day) for dry drilling operations, with vertical movement, in ferrous metals (steel, iron, cast iron) and non-ferrous metals (stainless steel, aluminum, copper, lead, zinc, tin, brass, etc.), plastics, and wood (optional lubrication system).

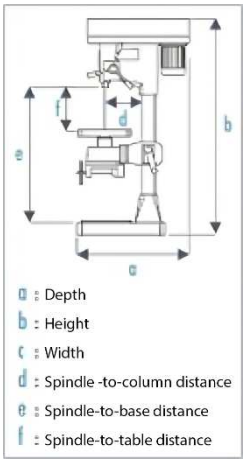
The manufacturer declines all responsibility in the event of misuse or machining of materials not recommended for the machine.
Under proper conditions of use and maintenance, safe operation and performance are guaranteed for several years.
To do this, explore the machine's various functions.

4.2 FEATURES

- Cast steel column.
- Transmission via toothed belts and steel pulleys.
- Spindle mounted on ball bearings.
- On/off switch equipped with a low voltage coil.
- Locking punch stop.
- Removable polycarbonate chuck guard.
- Square table tilting up to 45°, with cutting fluid collector.
- Table movement via rack and pinion.
- Digital display for drilling depth.
- Digital display of spindle speed.
- Laser guide for drilling position.
- LED lighting.
- Pulley cover equipped with an electric safety lock.
- Spindle return adjustable by return spring.
- Supplied as standard with:
  - 1 to 16 mm self-tightening chuck – B18;
  - CM2 chuck tail – B18;
  - cone puller;
  - screw clamp + set of flanges;
  - service keys.

Capacity of Maximum max (mm)	Chuck chuck	Ø column (mm)	Stroke of Spindle (mm)	Number of speeds	Gears of (rpm) (rpm)	Dimensions (a x b x c) (mm)	Power engine (kW)	Power	Weight (kg)
20	CM2	72	85	16	210 – 2880	660 x 980 x 430	0.55	230 V single-phase	49

d (mm)	e (mm)	f (mm)	Dimensions table (mm)	Grooving table (mm)	Dimensions Base (L x W x H) (mm)
160	630	440	285 x 285	14	410 x 245 x 50



4.3 DESCRIPTION OF THE MACHINE

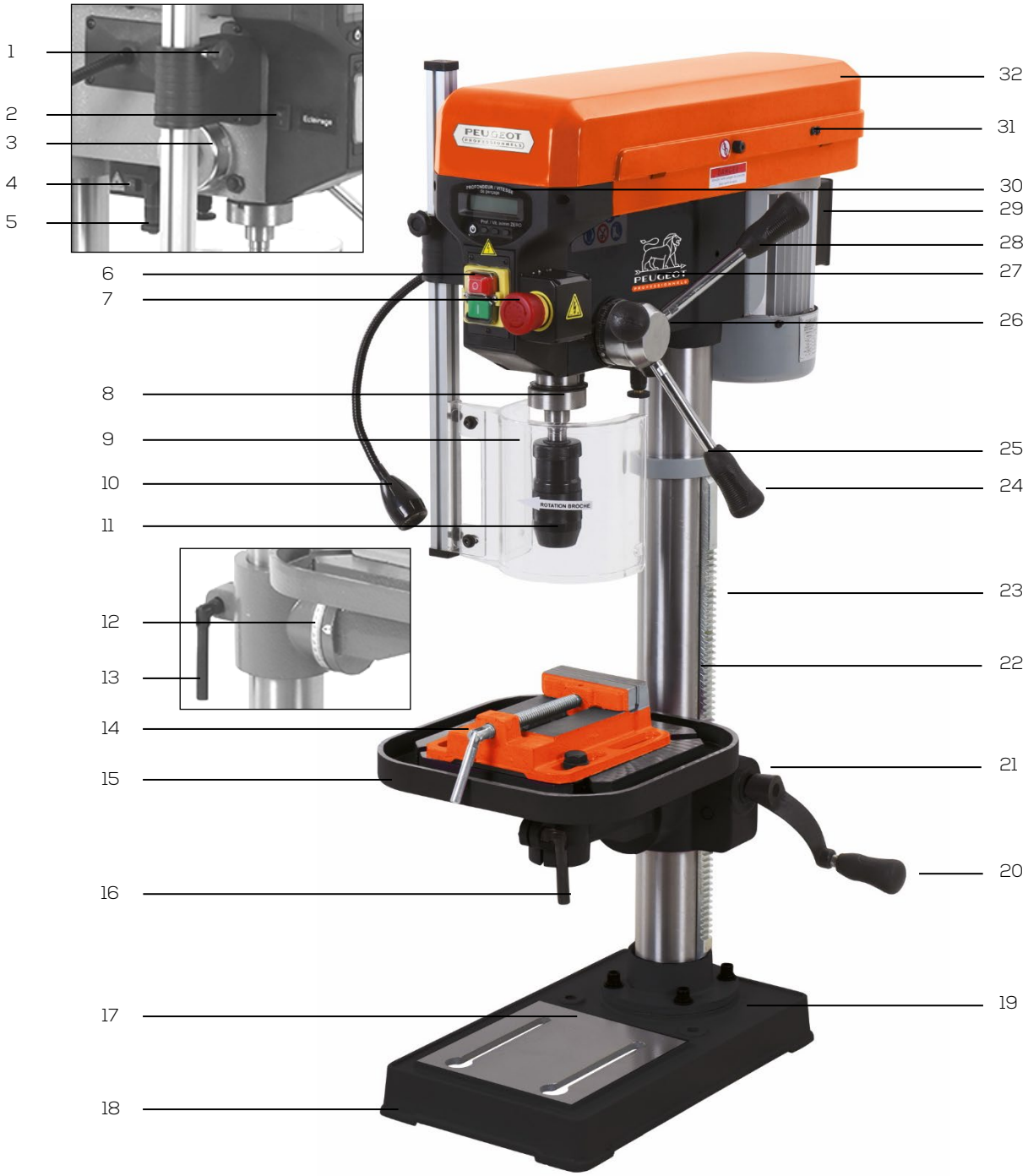


Figure 1

1. Protective screen adjustment handle
2. LED light switch
3. Return spring
4. Laser guide switch
5. Laser guide
6. ON/OFF switch
7. Latching punch stop
8. Spindle
9. Removable chuck guard
10. LED lighting
11. Chuck
12. Table support collar graduation
13. Table support collar locking handle
14. Vise
15. Table
16. Table clamping handle
17. Base sealing fixing point
18. Base
19. Column support
20. Table "UP/DOWN" crank handle
21. Table support collar
22. Column
23. Rack
24. Capstan arm
25. Rack ring
26. Capstan
27. Depth stop tightening knob
28. Drill head
29. Motor
30. Digital display
31. Pulley cover screws
32. Pulley cover

5 INSTALLATION

The procedures described below must be performed by qualified and authorized personnel.

5.1 PACKAGING

The drill is packaged in a cardboard box on a pallet, facilitating handling, transport, and storage.
To move the drill, use a pallet truck or forklift. Several people are required to set it up.
When unpacking, remove each part of the machine, check its overall condition, and then proceed with assembly.

Check that the machine is clean. The machine is delivered with the ground parts coated with a protective anti-rust oil.
If the product does not appear to be in good condition or if any parts are broken or missing, contact your dealer.
Keep the instruction manual for future reference.

A small anti-humidity bag may be included in the packaging. Keep it out of the reach of children and throw it away.

5.2 ASSEMBLY

Before using the drill, it must be assembled by several people:

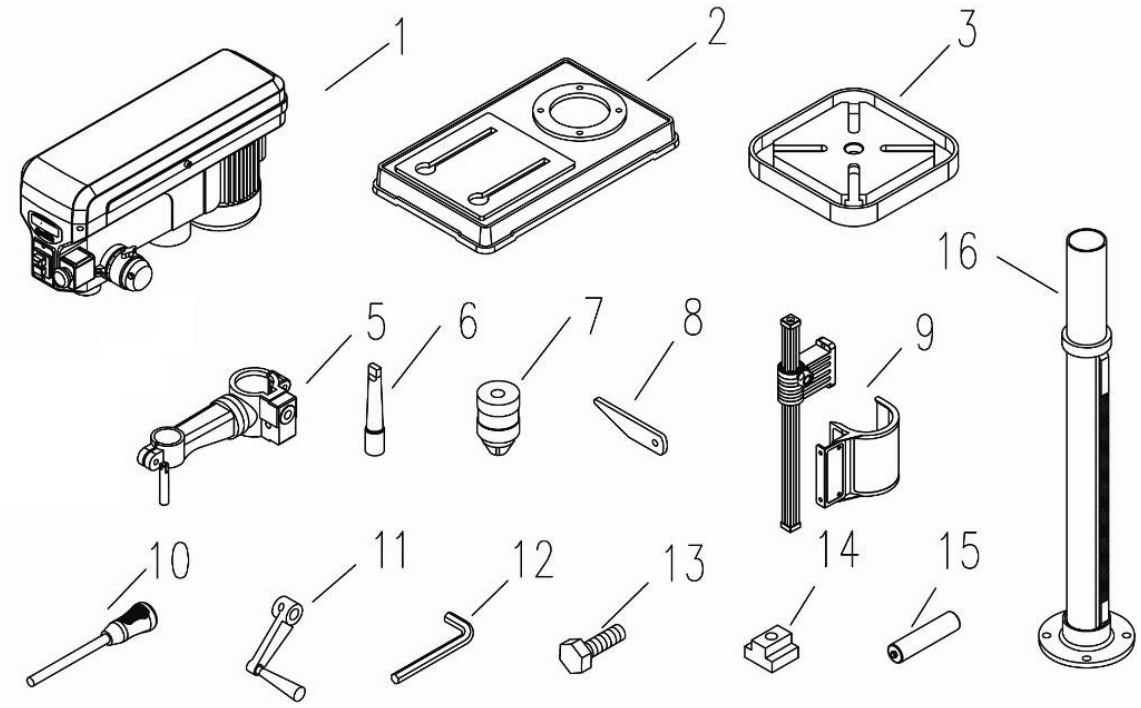
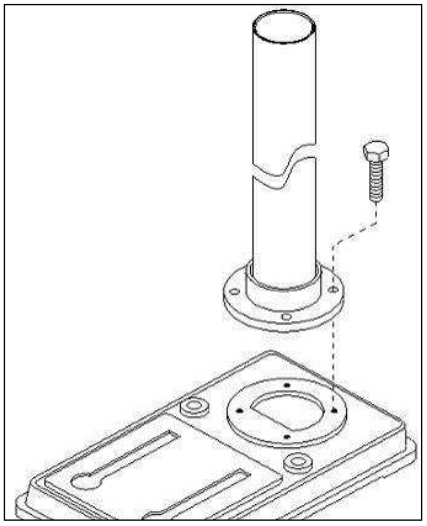
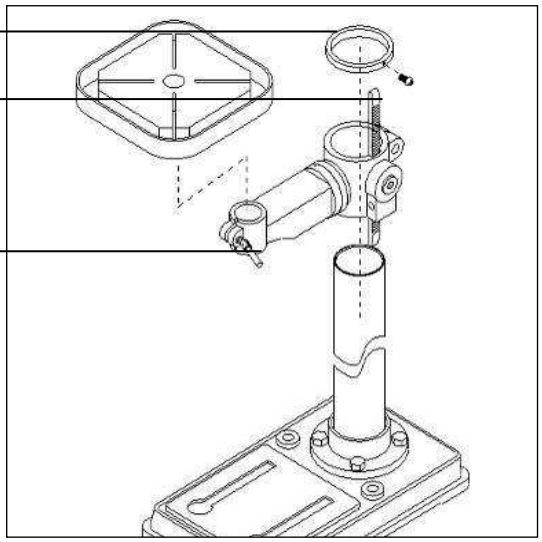


Figure 2

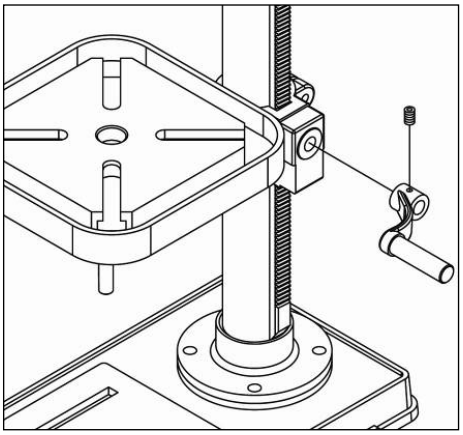
- The column (16 fig. 2) must be correctly secured to the base (2 fig. 2):
  1. Place the column on the base and align the mounting holes.
  2. Secure the column to the base with the four screws and washers (13 fig. 2).



- The table support collar (5 fig. 2) must be correctly installed on the column (16 fig. 2):
  3. Remove the rack ring (A) by loosening the screw using the wrench provided (12 fig. 2).
  4. Remove the rack (B) from the column.
  5. Check that the pinion on the table support collar is properly inserted to connect to the worm screw.
  6. Insert the rack in the correct direction (largest flat part facing up) into the table support collar.
  7. Hold the rack (teeth against the inside right side of the table support collar) and slide the assembly onto the column.
  8. Slide the rack ring onto the column with the chamfer facing down to ensure that the upper end of the rack is locked (leave 1 mm of play with the rack).
  9. Tighten the rack ring screw using the wrench provided.
  10. Check that the table support collar rotates properly.
  11. Tighten the locking handle on the table support collar.
  12. Mount the table (3 fig.2) on the table support.
  13. Check that the table pivots on the table support.
  14. Tighten the table locking handle (C).

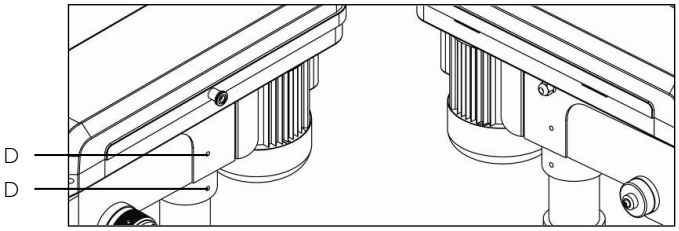


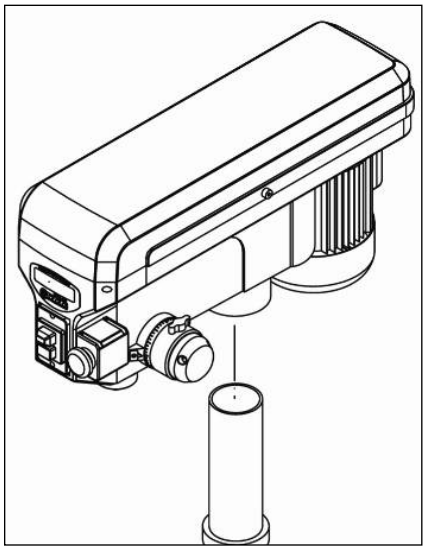
  15. Place the table "UP/DOWN" crank handle (11 fig. 2) on the worm screw shaft of the table support collar and tighten the crank handle clamping screw against the flat part of the worm screw using the wrench provided (12 fig. 2).
  16. Check that the "UP/DOWN" function of the table support collar is working properly.



✓ The ideal height of the table from the floor is approximately 110 cm.

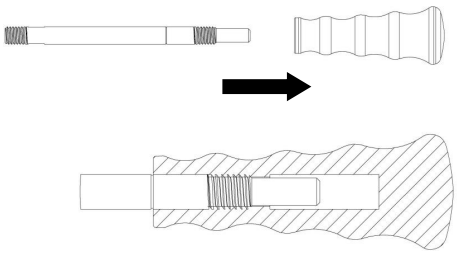
- The drill head (1 fig. 2) must be correctly installed on the column (16 fig. 2):
  17. Loosen the head clamping screws (D) located on the left or right side of the drill head using the wrench provided (12 fig. 2).
  18. ⚠ With at least two people, carefully lift the drill head and slide it onto the column.
  19. Ensure that the head slides as far as possible along the column.
  20. Check that the drill head is correctly positioned on the column.
  21. Align the drill head with the base (2 fig. 2) to ensure the unit is properly balanced.
  22. Tighten the head clamping screws on the left or right side of the drill head using the wrench provided to hold the drill head in place.

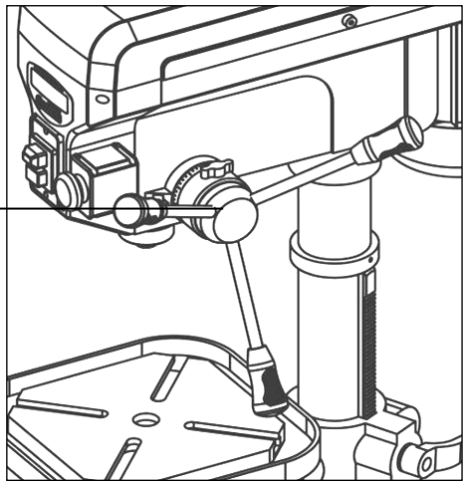




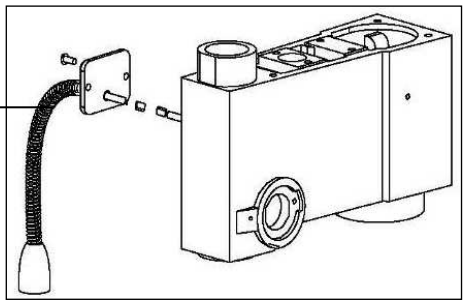
- The capstan arms (10 fig. 2) must be correctly installed for spindle descent:
  23. Screw the capstan arms onto the capstan (E) and tighten.

✓ Screw the handles onto the arms as shown in the figure below.

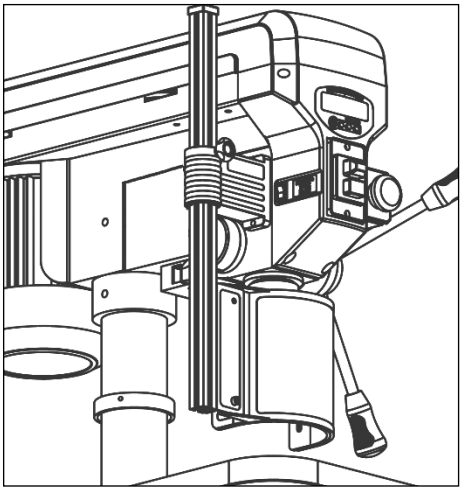




24. Connect the LED light (G) to the power terminals located in the drill.
25. Secure it to the left side of the drill head using the appropriate screws.



- The removable servo-controlled chuck guard (9 fig.2) must be correctly installed for the machine to function properly:
  26. Assemble the complete chuck guard assembly correctly.
  27. Install the complete chuck guard assembly in its holder located on the left side of the drill head.

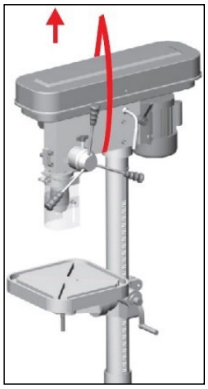


✓ **See § 7.5 "CHUCK PROTECTIVE SCREEN."**

5.3 HANDLING AND TRANSPORT

This machine has a very high center of gravity, so be careful of the risk of tipping.
Check that the screws securing the head to the column are tightened correctly.

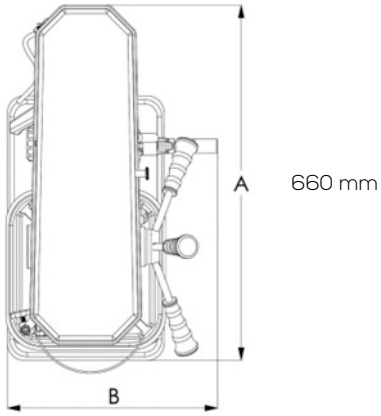
Given the weight (49 kg) and dimensions of the machine, handling and installation must be carried out using appropriate equipment and with the assistance of several people.
To lift the drill, use a slinging system (e.g., polyester cables of adequate capacity with hooks) and position it as shown in the attached figure.
Check that the moving parts are locked.
Ensure that the head is securely locked.
Lift the drill with the utmost care; keep people not involved in the lifting operation away.



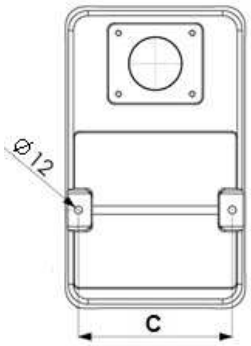
5.4 INSTALLATION OF THE MACHINE

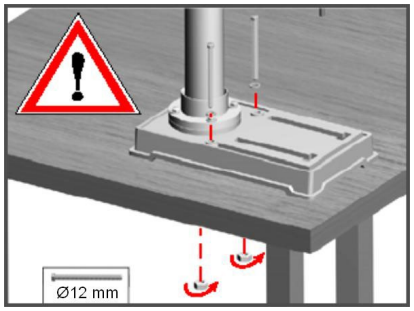
Installation environment:

- Power supply voltage in accordance with the machine specifications.
- Ambient temperature between +5°C and +35°C.
- Relative humidity not exceeding 90%.
- Sufficient ventilation at the installation site.
- Work area sufficiently lit for safe working: lighting must be 500 LUX.



Consider the location of the machine in the room; it should allow for easy movement and maneuverability. Maintain a minimum distance of 800 mm between the rear of the machine and the wall.
The machine must be fully assembled.
With the help of several people, position the machine on a base or workbench that is sufficiently flat, level, smooth, and non-slip, so that the machine is as stable as possible. Secure the base or workbench to a sufficiently flat and non-slip floor, so that the base or workbench is as stable as possible. Use a base or workbench with sufficient capacity.
Provide fixing holes in line with the base fixing points (17 fig.1) and proceed with fixing.
Secure the machine using appropriate washers, nuts, and bolts.
Before tightening the bolts, check that the drill is level. To correct, wedge sheets of metal of suitable thickness (gauge sheets) between the base or workbench and the base of the machine.
To perform machining operations in accordance with ergonomic criteria, the ideal height for positioning the work table is approximately 110 cm from the floor.





Cleaning the new machine:

- All machines are delivered with the ground parts covered with a protective anti-rust grease. Before using the machine, remove this grease with a thinner. This operation is very important and must be carried out with the utmost care: failure to remove the grease could cause seizing.
- Check that the surfaces of the drill are free of dust and chips.
- After cleaning, all exposed parts must be coated with a protective oil film using a medium viscosity oil.

5.5 ELECTRICAL CONNECTION

Electrical work must be carried out by qualified personnel authorized to perform low-voltage electrical work.

Before mounting a tool, check that the drill spindle rotates clockwise (there is a pictogram on the machine).
The warranty does not cover damage caused by incorrect connection.

ELECTRICAL PRESENCE

Ensure that the supply voltage of the electrical installation corresponds to that of the machine.
Connect the machine to the power supply using the machine's power cable.
Check that the electrical outlet of the installation is compatible with the machine's plug (2P+T).
For the electrical connection, the outlet used must comply with the "EN 60309-1" standards.
Check that the electrical installation to which the machine will be connected is properly grounded in accordance with current safety standards.

Do not use a welding machine or any other device that could overload the same electrical installation line as the machine.
We remind users that there must always be a magnetothermal protection device upstream of the electrical installation to protect all conductors against short circuits and overloads.
This protection must always be selected based on the electrical characteristics of the machine, as specified on the nameplate:

- Voltage: 230 V single-phase
- Frequency: 50 Hz
- Motor power: 0.55 kW
- Current: 2.6 A
- Protection rating: IP 54

Do not use a welding machine or any other device that could overload the same electrical circuit as the machine.

Use of the machine with a damaged power cable is strictly prohibited.
Regularly check the condition of the power cord, switches, and cable gland.

Use an extension cord or cable reel with a cross-section and length that are compatible with the machine's power rating, and unroll them completely.
Electrical connections and extension cords must be protected from splashes and kept on dry surfaces.

Do not remove the plug from the electrical outlet by pulling on the cord; pull only on the plug.

5.6 INITIAL TEST AND INSPECTION BEFORE FIRST USE

- Check that the drill head is securely attached to the column, the column is attached to the base, the base is attached to a pedestal or workbench, and the pedestal or workbench is attached to a sufficiently flat and non-slip floor, so that the pedestal or workbench is as stable as possible.
- Ensure that the table is correctly positioned on its support and that the support is securely attached to the column.
- Check that moving parts are working properly and that there are no damaged components.
- Check that the guards are in place, intact, and in good working order.
- Check the condition of the tool.
- Check that the spindle descent, chuck guard adjustment, and table "UP/DOWN" functions are working properly.
- Check that the pulleys are correctly aligned.
- Check that the belts are correctly positioned.
- Check that the belts are correctly tensioned.
- Check that the machine is running perfectly when idle.

6 TOOLS

Disconnect the machine from the power supply before changing any tools.

Never install a damaged tool.
Replace the tool when it is worn or broken to avoid additional vibrations and inaccurate machining.

Check that the tool is clean.
Install a tool that complies with the machine's recommendations for use.

The tool may become very hot during machine operation. Wait for the tool to cool before replacing it.

Remove all objects from the table before any operation.

Risk of puncture, pricking, pinching, or crushing.

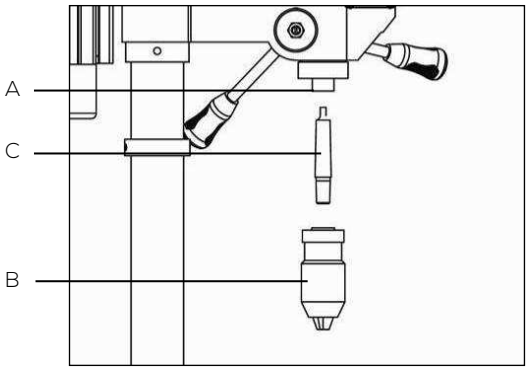
Protective gloves must be worn.

6.1 TOOL ASSEMBLY

Procedure:

A. CM2 - B18 chuck shank with 1 to 16 mm self-tightening chuck - B18
1. Degrease the inside of the spindle (A), the chuck (B), and the conical part of the chuck tail (C) using a dry cloth.
2. Firmly push the chuck shank (C) into the chuck (B) by hand.
3. Firmly push the chuck (B) + chuck tail (C) assembly into the spindle (A) by hand.
4. Mount the Ø1 mm to Ø16 mm cylindrical shank tool in the chuck (B).

B. Tool with conical shank
1. Degrease the inside of the spindle (A) and the tapered part of the tool using a dry cloth.
2. Mount the tool with a tapered shank directly into the spindle (A) (if necessary, adjust the size of the Morse taper using a suitable reducer or augmenter).

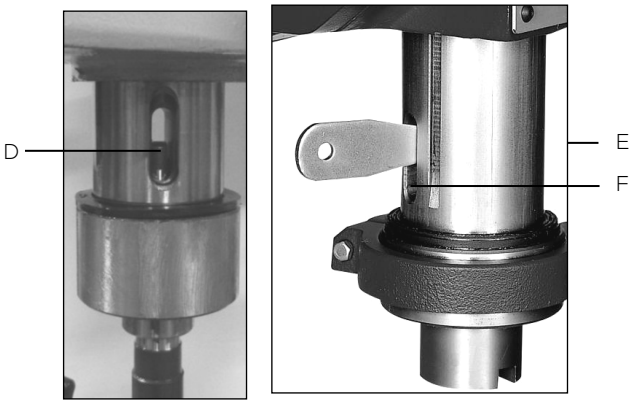


Before assembling the chuck shank and chuck in the drill spindle, clean all contact surfaces with a thinner.
Any oil or grease used in the packaging of these parts must be removed, otherwise the chuck may come loose during operation.

6.2 TOOL DISASSEMBLY

Procedure:

1. Position the table approximately 250 mm below the tool.
2. Lower the spindle using the capstan arms by approximately 100 mm.
3. Lock the spindle in place using the depth stop.
4. Turn the spindle by hand so that you can see the tapered tool (D) (the spindle bore must be correctly aligned with the sleeve bore).
5. Insert a cone puller (E) into the spindle bore (F).
6. Hold the tool in your hand and tap the end of the cone puller lightly with a mallet to extract the tool.



7 ADJUSTMENTS

Follow the specific safety instructions for the drill (see § 3.2).

Before starting operation, familiarize yourself with the controls.

Wearing appropriate personal protective equipment is mandatory.

Before performing any maintenance or servicing, disconnect the machine.

7.1 CONTROL DEVICES

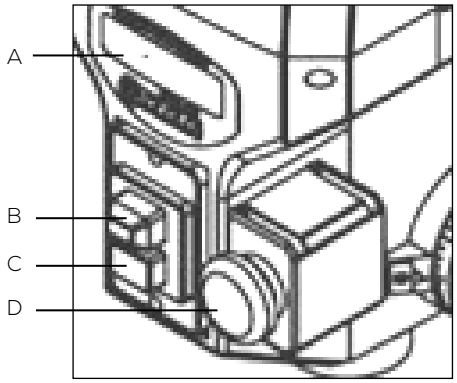
Control panel

A. DIGITAL DISPLAY:
   - Indicates the drilling depth.
   - Indicates the spindle rotation speed.

B. RED "0" SWITCH OFF:
   - Stops the spindle.

C. GREEN SWITCH "I" MACHINE OPERATION:
   - The machine spindle is activated.

D. STOP PUNCH WITH LOCK:
   - General machine shutdown

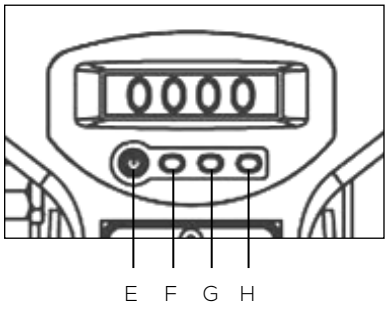


7.2 DIGITAL DISPLAY

The drill has a digital display that shows the drilling depth (with a tolerance of +/- 5 mm) and the drilling speed.

The display has four function keys:

E. "⏻": Activates/deactivates the digital display.
F. "Depth/Speed": Displays the drilling depth/drilling speed.
G. "in/mm": Selects the distance between "inch" and "mm" (millimeter).
H. "ZERO": Resets the spindle stroke to zero.



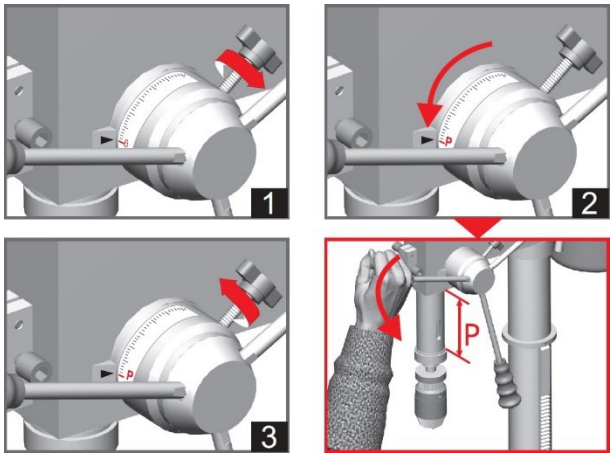
7.3 DEPTH STOP

Disconnect the machine's power supply before performing this operation.

To avoid lowering the spindle to its maximum depth or to prevent drilling a through hole, the spindle descent limit can be adjusted using the depth stop located to the right of the drill head. To stop drilling at the desired depth:

1. Check that the spindle is in the upper position and that the depth stop knob is loose.
2. Turn the scale to the desired drilling depth.
3. Lock the scale by tightening the depth stop knob.
4. Lower the spindle using the capstan arms to check the drilling depth.
5. The drilling depth is also shown on the digital display.

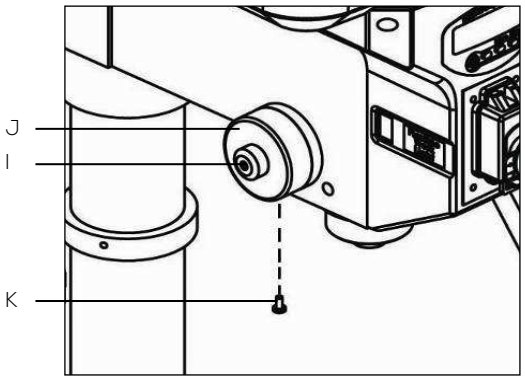
P = Drilling depth.



7.4 SPINDLE RETURN SPRING

Disconnect the machine from the power supply before performing this operation.

The drill is supplied with the spindle counterbalanced by a coil spring (factory-set). However, the spindle return spring may need to be adjusted if the spring tension causes the spindle to return too quickly or if the spindle no longer returns to the upper position:



1. Carefully loosen the screw (I) by a few turns.

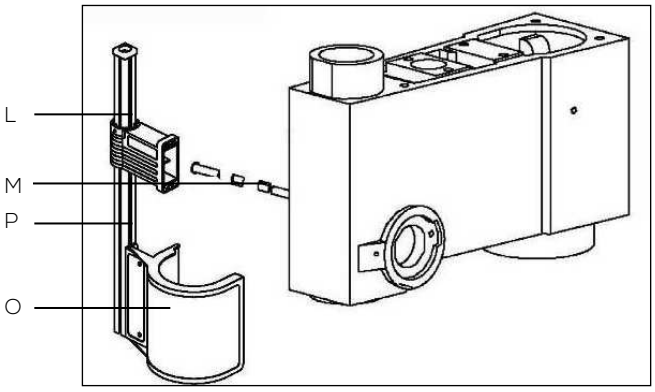
   If the screw (I) is completely removed, there is a risk of the spring housing (J) coming out suddenly.
2. Holding the spring housing (J) firmly, loosen and remove the screw (K).

   Be careful not to let the spring housing fly out.
3. While holding the spring housing (J) firmly, carefully turn it in the appropriate direction to increase or decrease the spring tension (counterclockwise to increase spring tension or clockwise to decrease spring tension) until a notch on the spring housing aligns with the screw (K).
4. Once the adjustment has been made, tighten the screw (K).
5. Tighten the screw (I).
6. Test the spindle return.

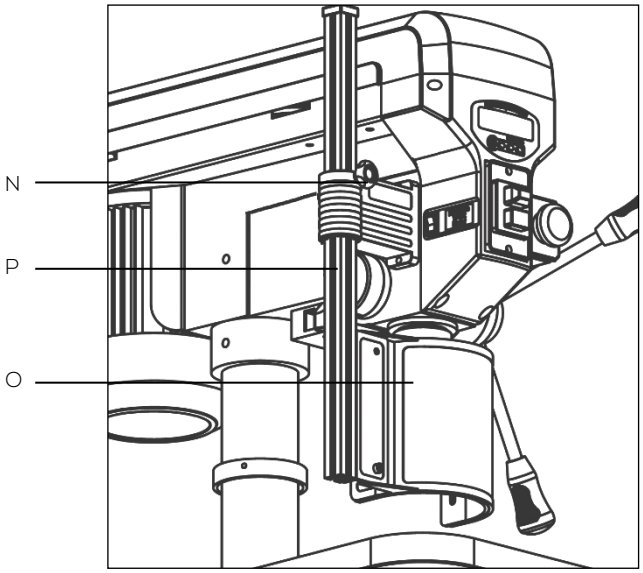
Avoid returning the spindle too abruptly to avoid risks and not compromise the life of the return spring.

7.5 CHUCK PROTECTIVE SCREEN

Before operating the drill, mount and adjust the removable servo-controlled chuck guard correctly:



1. Check that the electrical connections on the protective screen support block (L) and on the electrical connections coming out of the drill head (M) are tight.
2. Connect the protective screen support block (L) to the electrical connections (M) located on the drill head.
3. Position the adjustment handle (N) located on the protective screen support block (L) upwards.
4. Mount the protective screen (O) on the screen shaft (P) using two screws.
5. Mount the assembly in the protective screen support block (L).
6. Position the screen shaft (P) and tighten the handle (N).
7. To ensure the drill operates correctly, adjust the chuck guard correctly with the shaft in the closed position (an electric safety lock ensures closure) and tighten the handle (N).



Raising/lowering the chuck guard shaft:

1. Loosen the handle (N).
2. Set the chuck guard (O) to the desired height using the shaft (P).
3. Tighten the handle (N).

Close the chuck guard properly before starting the machine (an electric safety lock ensures closure).

7.6 TABLE

Stop the machine before moving the table and the material to be drilled.

Never hold the material to be drilled with your hands; secure it firmly using a vice or clamps.

Remove all objects from the table and the tool from the chuck before any operation.

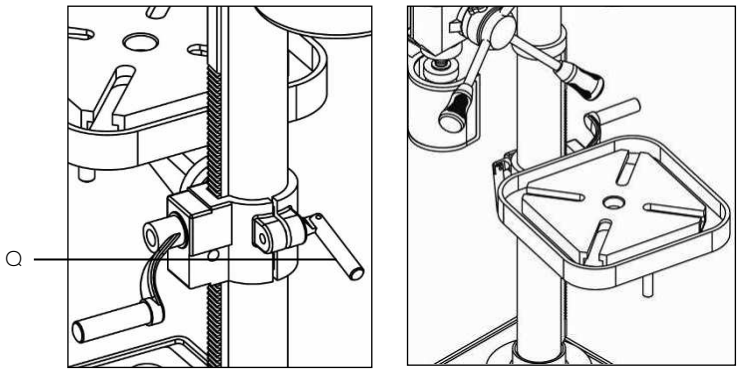
Risk of pinching and crushing.

Secure the vise or material to the table using a set of clamps.

✓ The maximum weight that the drill table can support is 40 kg.

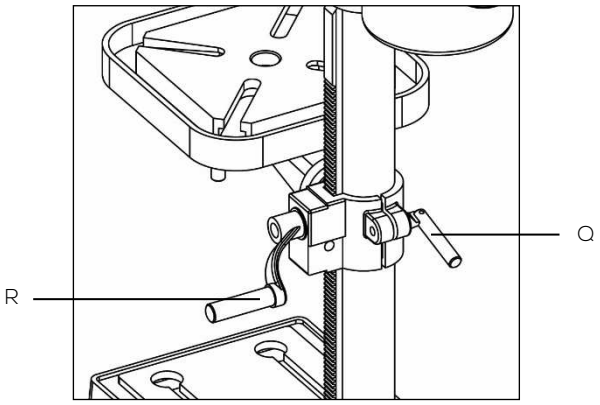
A. Adjusting the axial position of the table:

1. Loosen the table support collar locking handle (Q).
2. Rotate the table to the appropriate position (360° rotation of the table support collar).
3. Tighten the table support collar locking knob (Q).



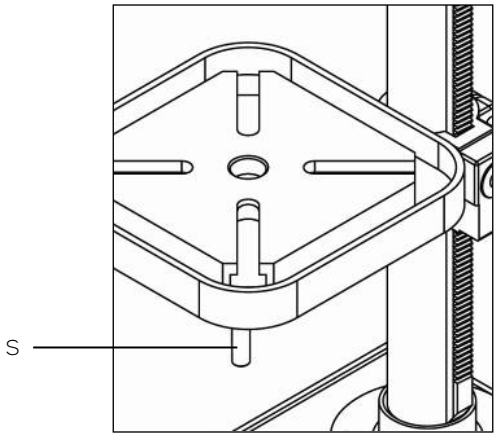
B. Adjusting the table height:

1. Loosen the table support collar locking handle (Q).
2. Adjust the table to the desired position by turning the table "UP/DOWN" crank handle (R).
3. Tighten the locking handle on the table support clamp (Q).



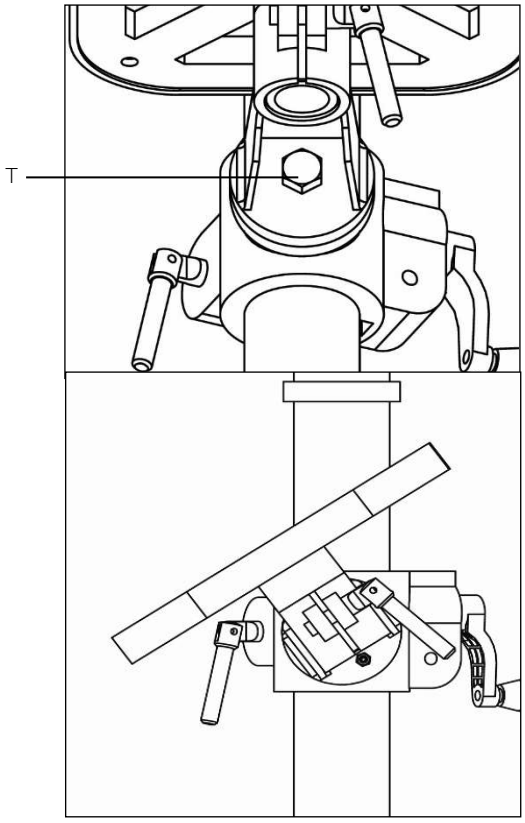
C. Adjusting the table rotation:

1. Loosen the table locking knob (S).
2. Rotate the table to the desired position.
3. Tighten the table locking handle (S).



D. Adjusting the table tilt:

1. Loosen the hexagonal screw (T) located under the table.
2. Tilt the table to the desired angle to the left or right using the angle mark.
3. Tighten the hexagonal screw (T) to secure the table tilt.



Avoid overtightening the screw to prevent breaking the pivot on the table support collar.

E. Vise assembly:

- The table allows the vise to be attached via the grooves.
- The vise and a set of clamps are supplied as standard.

To work safely, the material must always be securely clamped using a suitable clamping tool on the T-slotted table or in the vise.

F. Lubrication system (optional):

- An optional lubrication system can be installed.
- The lubrication system is connected to a fitting in the table provided for this purpose.

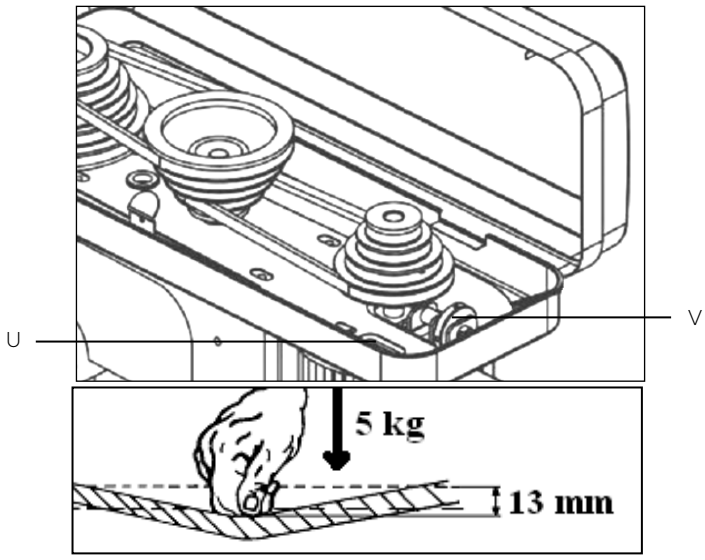
7.7 SELECTING THE SPINDLE ROTATION SPEED

The speed must be selected when the drill is stopped.

Risk of entanglement or wrapping.

The spindle rotation speed is adjusted by changing the position of the belts on the drive pulleys located in the pulley cover (32 fig.1).
Refer to the speed table located in the pulley cover (32 fig.1).
The speed is controlled by a transmission system using toothed belts and steel pulleys.
The speed range is from 210 rpm to 2880 rpm.
To select the spindle rotation speed:

1. Stop the machine.
2. Unscrew the pulley cover screw (31 fig.1) to open the pulley cover (32 fig.1).
3. Unlock the motor by loosening the three motor tension nuts (U).
4. Turn the belt tension knob (V) counterclockwise (to the left) to move the motor forward and loosen the belts.
5. Change the position of the belts according to the table (see next page) to obtain the desired speed.
6. Turn the belt tension knob (V) clockwise (to the right) to move the motor backward and thus tighten the belts.
7. Lock the motor in place using the three motor tension nuts (U).
8. To ensure that the belts are correctly tensioned, they should have a deflection of approximately 13 mm per 5 kg of pressure.
9. Close the pulley cover (32 fig.1) and tighten the screw (31 fig.1).



The spindle speed is shown on the digital display (30 fig.1).

Only change the speed when the machine is stopped.

✓ Close the pulley cover properly before starting the machine (an electric safety lock ensures that it is closed).

Check that the pulleys are correctly aligned.
Check that the belts are correctly positioned.
Check that the belts are correctly tensioned.

Change the rotation speed of the spindle raised to its original position.

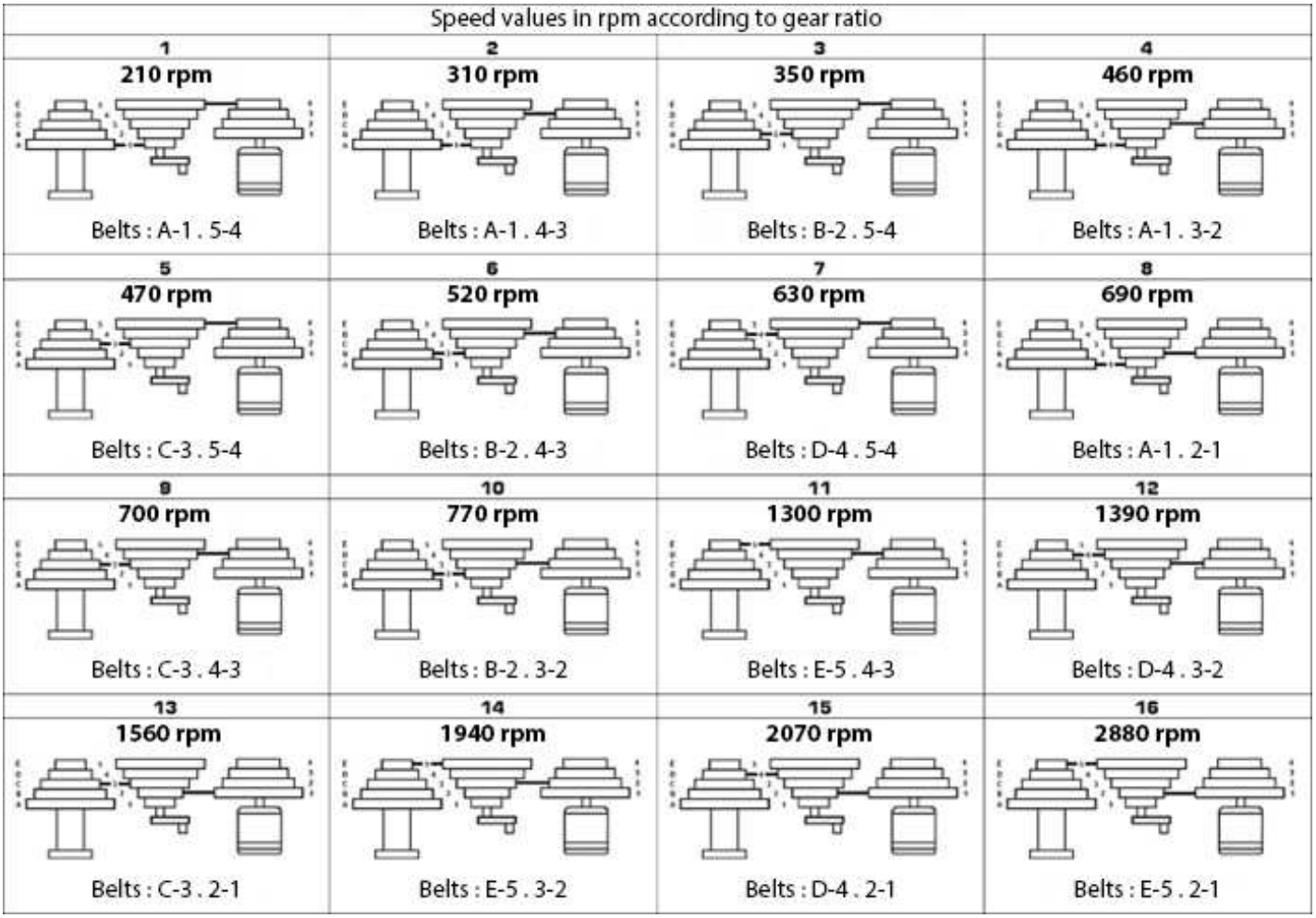


TABLE OF RECOMMENDED ROTATION SPEEDS BASED ON MATERIALS AND TOOL DIAMETERS

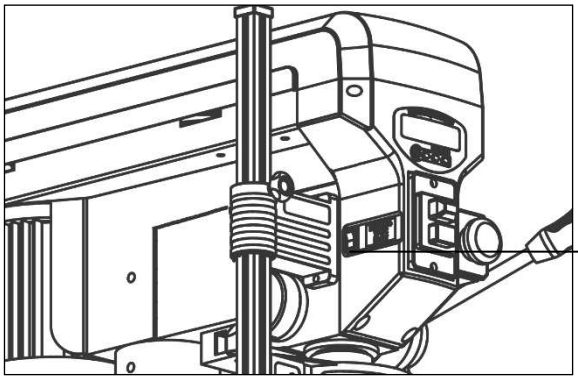
Speeds of Rotation (rpm)	Wood (mm)	Zinc (mm)	Aluminum Brass (mm)	Plastic (mm)	Cast iron Bronze (mm)	Steel Medium/hard (mm)	Steel Hard (mm)	Steel Stainless steel (mm)
2740	Ø 10	Ø 7	Ø 6	Ø 5	Ø 3.2	Ø 2.4	Ø 1.6	Ø 1.2
2270	Ø 16	Ø 10	Ø 9	Ø 8	Ø 6.5	Ø 4	Ø 3.5	Ø 2
1410 – 1540	Ø 22	Ø 12.5	Ø 12	Ø 11	Ø 9	Ø 6.5	Ø 5	Ø 3.5
970 – 1280	Ø 32	Ø 19	Ø 18	Ø 16	Ø 12.5	Ø 9.5	Ø 8	Ø 6.5
480 – 580	Ø 41	Ø 22	Ø 19	Ø 20	Ø 16	Ø 13	Ø 11	Ø 9.5
300 – 400	Ø 50	Ø 25	Ø 22	Ø 25	Ø 19	Ø 16	Ø 14	Ø 12
180 – 250	Ø 58	Ø 28	Ø 25	Ø 30	Ø 22	Ø 19	Ø 16	Ø 14

7.8 LED LIGHTING

The machine has LED lighting located on the left side of the drill head.
The LED lighting switch (W) is located on the left side of the control panel.

For better visibility when drilling, the LED lighting can be turned on:

- "0": The LED lighting is off.
- "I": The LED light is on.



7.9 LASER GUIDE

Turn off the machine before performing this operation.

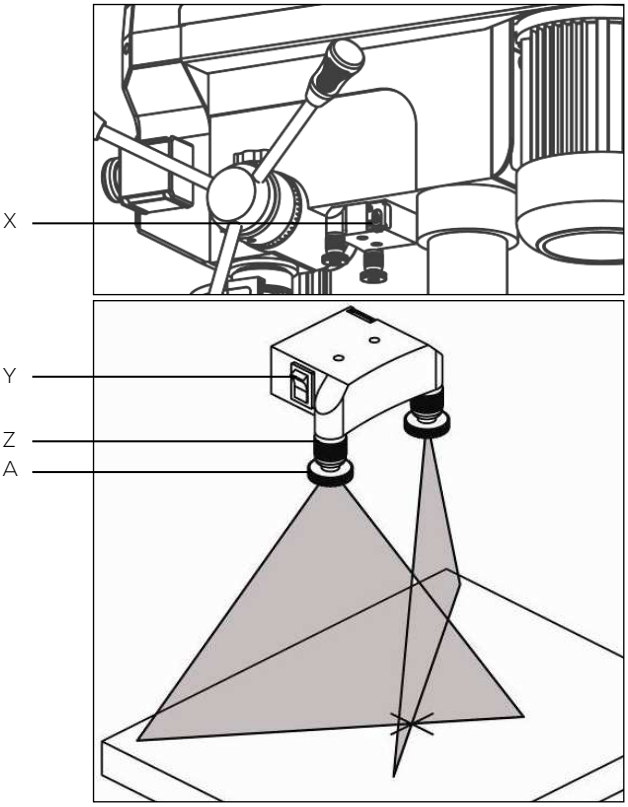
Disconnect the machine from the power supply before opening the battery compartment.

Do not open the battery compartment while the drill is in operation.

The machine has a class 2 laser guide for drill positioning.

The laser guide must be adjusted before use. To adjust the laser guide:

1. Insert the two batteries (type AAA R03 1.5V) into the compartment (X) located opposite the switch, observing the polarities.
2. Mark an "X" on the material to be drilled.
3. Insert a tool into the chuck or spindle and align its tip with the intersection of the lines of the "X" mark.
4. Press the laser switch (Y) to the "I" position to turn on the laser guide.
5. Check that the laser lines are aligned with the "X" mark on the material.
6. If the laser lines are not aligned, loosen the locking knobs (Z) on each side of the laser guide and turn the adjustment knobs (A') until the lines meet at the center of the "X" markings.
7. Tighten the locking knobs (Z) to secure them.
8. Do not move the table as this will disrupt the drilling position.



When using the laser guide, do not point the laser beam at people or reflective surfaces.
Even a low-intensity laser beam can cause eye damage.
Therefore, do not look directly into the laser beam.

Use only AAA R03 1.5V batteries.

Do not attempt to recharge the batteries that were supplied.

Remove the batteries from the compartment if they are not used for an extended period of time.

All batteries must be replaced at the same time.

If a battery is damaged and/or used improperly, corrosive liquid may be ejected and vapors may escape: avoid contact with hands, skin, and eyes (may cause irritation or burns and would be toxic if swallowed) and ventilate the work area (may cause respiratory tract irritation). In case of accidental contact, clean with water, and/or if you feel unwell, consult a doctor.

Do not throw batteries into fire (risk of explosion) or in the trash.
In accordance with European Directive 2006/66/EC, used or defective batteries must be isolated and recycled appropriately.

If the machine is stored for more than three months without being used, remove the batteries to prevent damage due to possible battery leakage.

8 USE

8.1 DRILLING PROCEDURE

Follow the specific safety instructions for the drill (see § 3.2).

Before starting operation, familiarize yourself with the controls.

Wearing appropriate personal protective equipment is mandatory.

All operations relating to the machining procedure must be carried out when the spindle is in the upper position and the tool is stopped.

Ensure that the tool is firmly locked in the chuck or spindle.

Keep hands away from machining areas when the machine is in operation.
Before performing any operation to position the material or remove cutting waste, stop the machine.

Never hold materials to be drilled by hand; clamp them securely using appropriate tools such as vices and clamping systems.

During use, there is a risk of hot metal debris being projected.

Do not apply excessive pressure to the tool. Machining performance is not improved by applying high pressure to the tool, but the service life of the tool and machine will be reduced.

Before performing any maintenance or servicing, disconnect the machine.

A. Instruction

1. Ensure that the tool selected is suitable for the material to be drilled.
2. Check that the tool is sharp and securely tightened (see § 6.1).
3. Ensure that the spindle speed is suitable for the work to be carried out (see § 7.7).
4. Ensure that the material to be drilled is securely clamped to the table or in the vice to prevent it from moving during machining.
5. Adjust the height of the work table (see § 7.6).
6. Adjust the depth stop correctly (see § 7.3).
7. Adjust the chuck guard (see § 7.5).
8. Close the chuck guard (an electrical safety lock ensures closure).
9. Connect the machine's power supply.
10. Adjust the laser guide, if necessary (see § 7.9).
11. Turn on the LED light, if necessary (see § 7.8).
12. Unlock the emergency stop button and/or reconnect the safety devices.
13. Press the green "I" switch to start the machine.
14. Ensure that no one is in the path of debris caused by machining.
15. Do not start machining against the material or strike the tool against the material to be drilled, but work by applying moderate pressure to the capstan arms.
16. If necessary, use the optional lubrication system or manually apply cutting fluid to cool the tool.
17. Carefully raise the spindle once machining is complete.

B. Shutdown

1. Press the red "0" switch to turn off the spindle.
2. Turn off the laser guide.
3. Turn off the LED light.
4. Lock the push-button stop in place.
5. Open the chuck guard.

When machining is complete, return the spindle to its starting position (rest, upward).

8.2 OPERATING INCIDENTS

A. Tool jamming in the material

Protective gloves must be worn.

1. Stop the machine by pressing the emergency stop button.
2. Open the chuck guard.
3. Carefully unblock the tool by turning the chuck counterclockwise while raising the spindle with the spindle lowering arms.
4. Carefully remove the material.
5. Check that the tool is not damaged.
6. When the tool is tightened, replace the chuck guard.
7. Unlock the punch stop latch.

Replace the tool if it is damaged.

Work by applying more moderate pressure on the capstan arms.

B. Winding of the chip around the tool

Do not remove the chip by hand.

If the chip becomes twisted:

1. Reassemble the tool.
2. If this is not enough to eject the chip, stop the machine by immediately pressing the emergency stop button.
3. Remove the chip using a hook.

C. Restarting a cycle after a safety stop

1. Unlock the emergency stop button.
2. Carefully raise the spindle.
3. Press the green "I" switch to start the machine.

D. Power failure

1. Carefully raise the spindle.
2. Press the green "I" switch to start the machine.

The machine is equipped with an electrical system with a low voltage device (preventing accidental restarting).

8.3 TABLE OF FAULTS AND SOLUTIONS

FAULT	PROBABLE CAUSE	SOLUTION
The machine does not work:	▪ No power supply.	➢ Check the power supply. ➢ Check the power outlet. ➢ Check the power cable. ➢ Call an authorized repair technician.
	▪ A safety device has been activated.	➢ Check that the pulley cover is properly closed. ➢ Check that the chuck guard is properly closed. ➢ Check that the punch stop is unlocked.
Noisy operation:	▪ Incorrect belt tension.	➢ Adjust the belt tension correctly.
	▪ Spindle not lubricated or dirty.	➢ Clean and lubricate the spindle.
	▪ Loose pulleys.	➢ Tighten the pulleys.
The tool is burnt or smoking:	▪ Incorrect spindle speed.	➢ Change the spindle rotation speed.
	▪ Chips not being removed from the drill hole.	➢ Frequently remove the tool and clean the drill hole.
	▪ Difficult machining.	➢ Sharpen or replace the tool.
	▪ No lubrication.	➢ Lubricate the tool.
Excessive vibration:	▪ Bent tool.	➢ Use a straight tool.
	▪ Tool not properly secured in the chuck.	➢ Secure the tool correctly.
	▪ Chuck incorrectly installed.	➢ Reinstall the chuck correctly.
	▪ Defective spindle bearings.	➢ Replace the spindle bearings.
The tool remains attached to the material:	▪ Material pinching the tool or excessive pressure applied.	➢ Secure the material firmly or reduce the pressure.
	▪ Incorrect belt tension.	➢ Adjust the belt tension correctly.
The workpiece is no longer secured:	▪ No proper support or clamping.	➢ Support or clamp the workpiece correctly.

8.4 TAKING THE MACHINE OUT OF SERVICE

If the drill is not to be used for an extended period of time, it is recommended to proceed as follows: Disconnect the plug from the power supply.

1. Remove the batteries from the laser guide compartment.
2. Remove all objects from the table and the tool from the chuck.
3. Release the return spring.
4. Clean and lubricate the machine carefully.
5. Cover the machine if necessary.

9 MAINTENANCE

Before performing any maintenance or servicing, disconnect the machine.

Wear gloves and protective eyewear, and use a clean, dry cloth, brush, long-handled brush, hook, magnetic collector, or vacuum cleaner for all cleaning operations (especially when removing chips, which may be sharp and hot).

Do not use a blow gun to remove machining chips.
Do not use solvents or aggressive detergents for cleaning.
Do not immerse the machine in water or wash it with a water jet.

Chips are often very sharp and hot. Do not touch them with your bare hands.

To maintain the efficiency of the machine and its components, it is necessary to perform maintenance.
Below are the most important maintenance tasks, which can be classified according to their frequency as daily, weekly, monthly, semi-annual, and special tasks.

Failure to perform the prescribed tasks will result in premature wear and tear and reduce the performance of the machine.

9.1 ●○○ DAILY MAINTENANCE

- Clean the machine as normal to remove any chips that have accumulated (collect them in bins).
- Clean the spindle cone.
- Check the tools for wear.
- Lubricate all sliding and ground parts before starting up the drill (pay particular attention to the sleeve and column).
- Lubricate the mechanism for raising and lowering the table located in the table support collar.
- Check the operation of the protective covers, safety devices, and stop devices.
- Check that the motor ventilation grilles are unobstructed.
- Check and replace the power cable if necessary.

9.2 ●●○ WEEKLY MAINTENANCE

- Clean the machine thoroughly and carefully, removing any chips (collect them in bins).
- Clean and lubricate the spindle.
- Sharpen the tools.
- Check that the protective covers and control mechanisms are working properly, looking for any defects.
- Check that the screws are tight.

9.3 ●●○ MONTHLY MAINTENANCE

- Check that all screws are tight, especially those on the motor and protective covers.
- Check the integrity of protective covers and devices.
- Check that the pulleys are tight.
- Clean and grease the spindle pulley section.
- Coat exposed parts with a protective oil film.

9.4 ●●● SIX-MONTHLY MAINTENANCE

- Test the continuity of the equipotential protection circuit.

9.5 BELTS

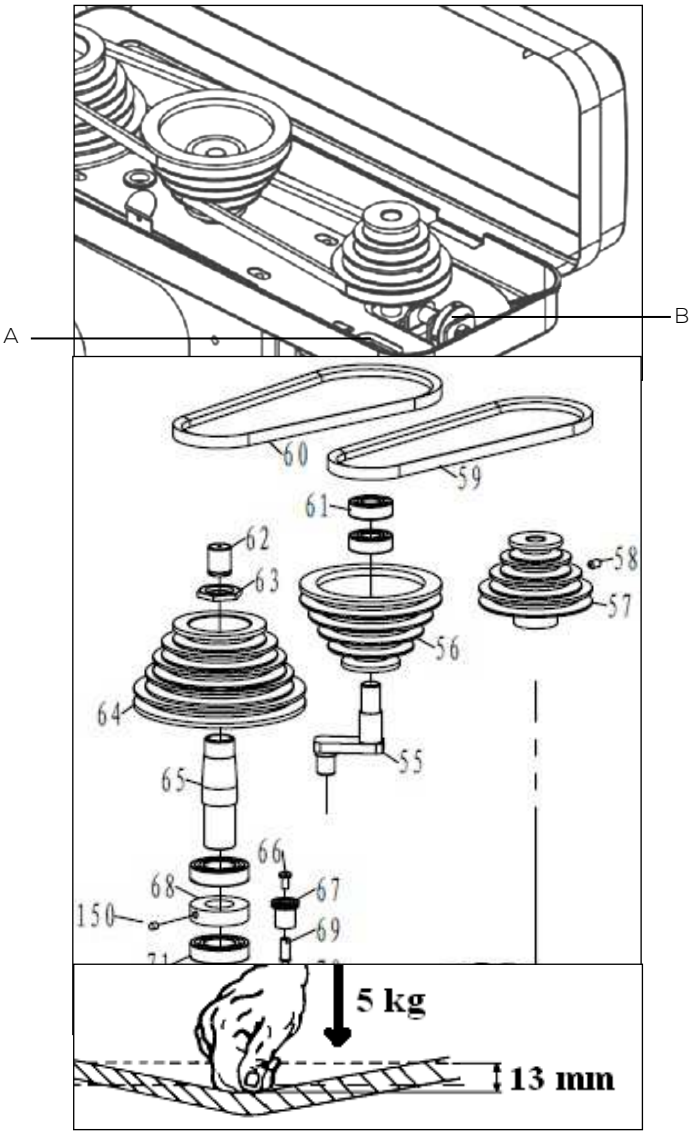
Use original belts to ensure correct tension.

Check that the pulleys are correctly aligned.
Check that the belts are correctly positioned.
Check that the belts are correctly tensioned.

The drill has three pulleys in the pulley cover, driven by two toothed belts:

- XPZ480 motor side belt;
- Spindle side belt V10X590.

An electrical safety lock prevents the machine from operating if the pulley cover is opened.
Check the belts regularly for wear.



A. Replacing the motor side belt (ref. 59):

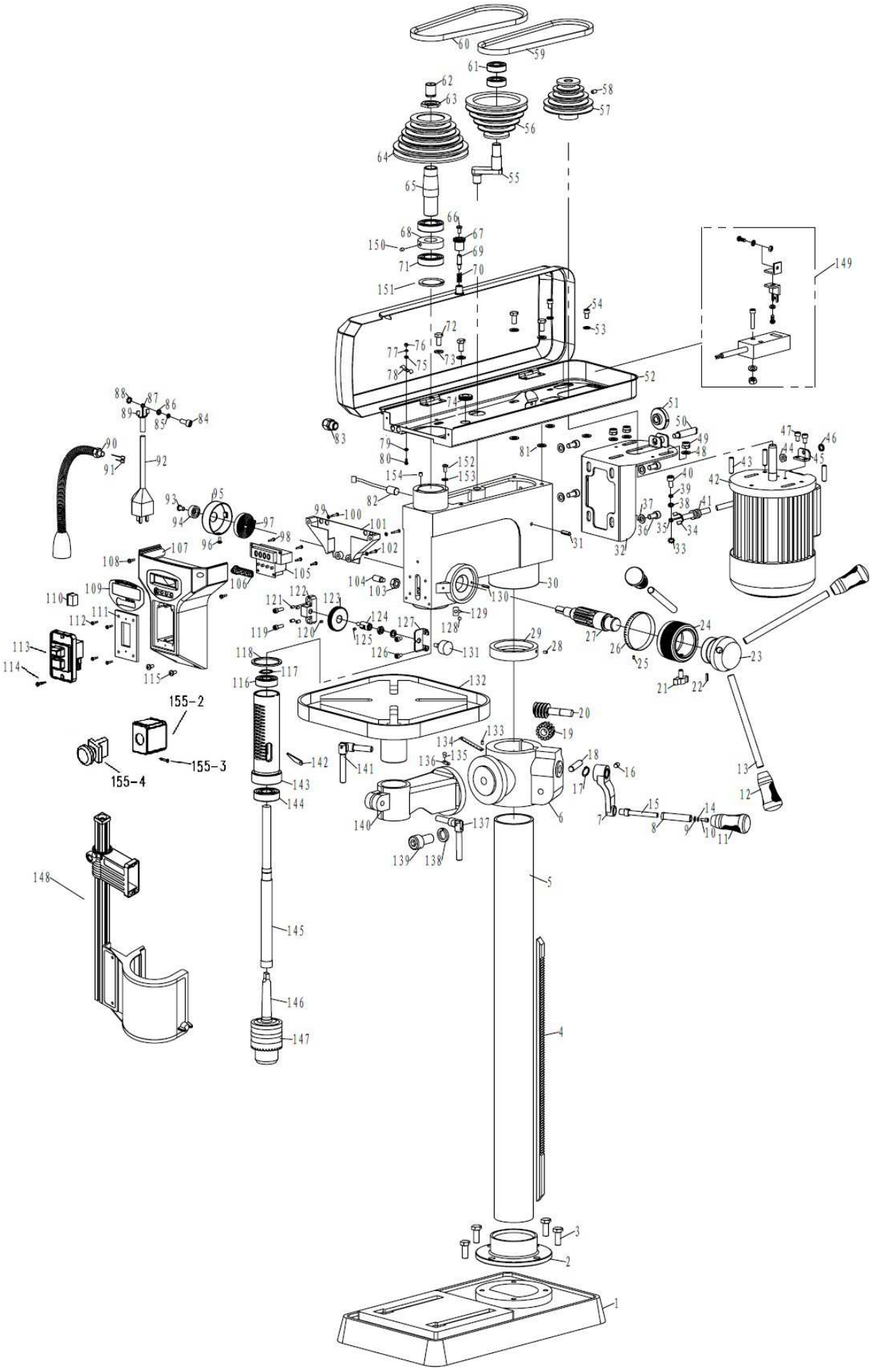
1. Stop the machine.
2. Unscrew the pulley cover screw (31 fig.1) to open the pulley cover (32 fig.1).
3. Unlock the motor by loosening the three motor tension nuts (A).
4. Turn the belt tension knob (B) counterclockwise (to the left) to move the motor forward and thus loosen the motor side belt (item 59) and the spindle side belt (item 60).
5. Remove the motor side belt (item 59).
6. Clean the inside of the pulley cover, the motor pulley (ref. 57), and the center pulley (ref. 56).
7. Correctly install the new toothed belt on the motor side in the housing of the central pulley (item 56) and the motor pulley (item 57).
8. Turn the belt tension knob (B) clockwise (to the right) to move the motor backward and thus retighten the motor side belt (item 59) and the spindle side belt (item 60).
9. Lock the motor in place by tightening the three motor tension nuts (A).
10. To ensure that the motor-side belt is correctly tensioned, it should have a deflection of approximately 13 mm per 5 kg of pressure.

B. Replacing the belt on the spindle side (item 60):

1. Follow steps 1 to 4 above.
2. Remove the spindle side belt (item 60).
3. Clean the inside of the pulley cover, the spindle pulley (item 64), and the center pulley (item 56).
4. Correctly install the new toothed belt on the spindle side in the spindle pulley housing (item 64) and the center pulley (item 56).
5. Turn the belt tension knob (B) clockwise (to the right) to move the motor backward and thus retighten the motor side belt (item 59) and the spindle side belt (item 60).
6. Lock the motor in place by tightening the three motor tension nuts (A).
7. To ensure that the belt on the spindle side is correctly tensioned, it must have a deflection of approximately 13 mm per 5 kg of pressure.
8. Close the pulley cover and tighten the screw.

10 EXPLODED VIEW

EXPLODED VIEW PPE20 (VIEW 01)



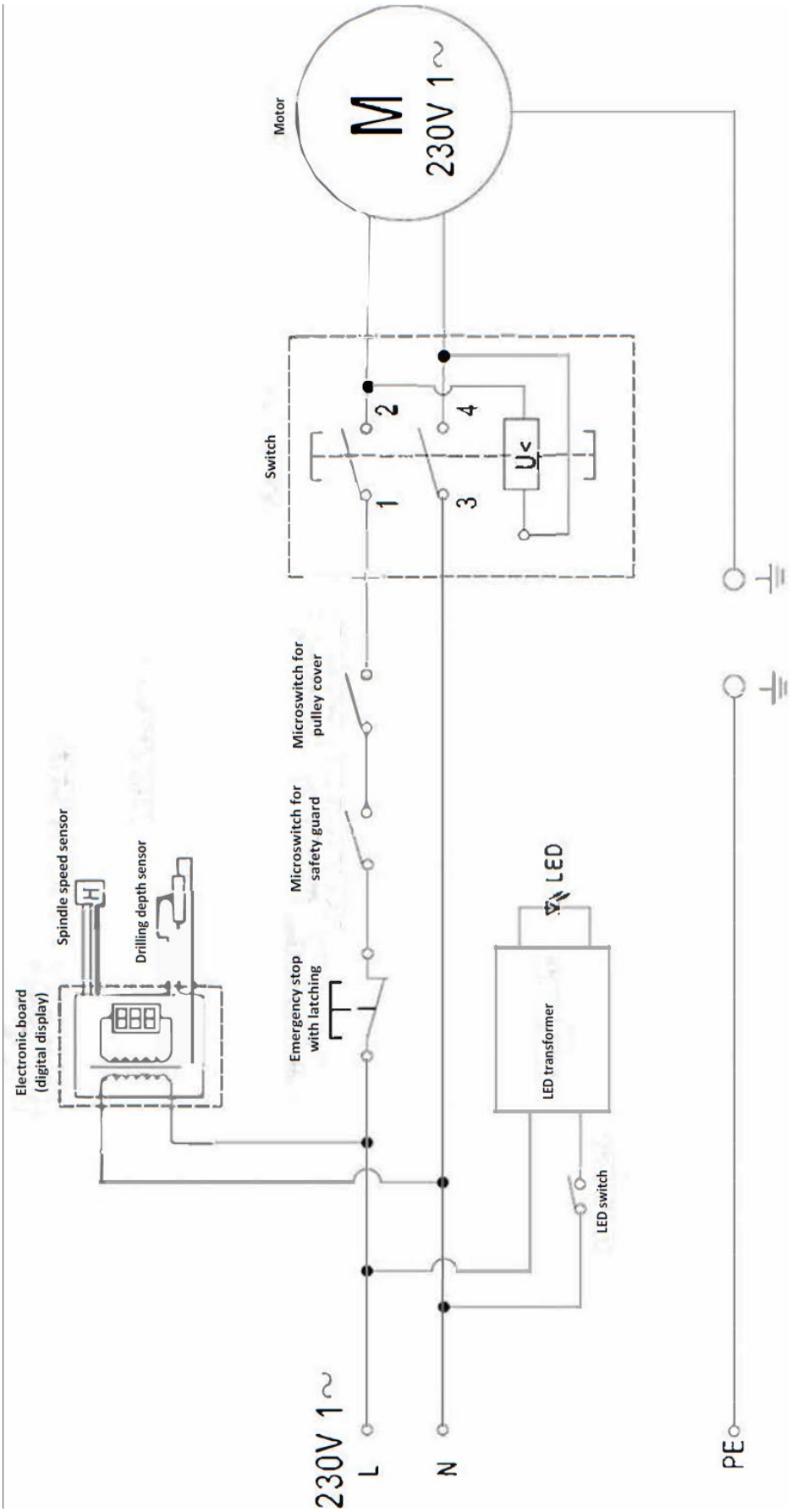
PARTS LIST EXPLODED VIEW PPE20 (VIEW 01)

Reference	Description	Quantity	Note
01	BASE #RAL 9004	1	
02	BASE COLUMN #RAL 9004	1	
03	HEXAGON HEAD SCREW	4	
04	RACK	1	
05	COLUMN	1	
06	TABLE SUPPORT COLLAR	1	
07	CRANK	1	
08	SOCKET	1	
09	M4 WASHER	1	
010	M4x8 SCREW	1	
011	HANDLE	1	
012	HANDLE	3	
013	CAPSTAN ARM	3	
014	M4 BRAKE WASHER	1	
015	AXLE	1	
016	SIX-HOLE HOLLOW HEAD SCREW	1	
017	CIRCLIP	1	
018	PINION SHAFT	1	
019	PINION GEAR	1	
020	WORM GEAR	1	
021	CLAMPING BUTTON	1	
022	SPRING PIN	1	
023	CAPESTAN	1	
024	CAPSTAN HUB	1	
025	RIVET	1	
026	DEPTH GRADUATION	1	
027	CAPSTAN SHAFT	1	
028	SIX-SIDED HOLLOW SCREW	1	
029	RACK RING	1	
030	HEAD	1	
031	HEADLESS HEXAGONAL SCREW	2	
032	MOTOR SUPPORT	1	
033	M4 DENTAL FITTING	1	
034	CONNECTION	2	
035	GROUND CONNECTION	1	
036	SIX-HOLE HEAD SCREW	4	
037	FLAT WASHER	4	
038	M4 WASHER	1	
039	M4 LOCK WASHER	1	
040	M4x10 SCREW	1	
041	MOTOR POWER CABLE	1	
042	MOTOR 230V SINGLE-PHASE 450W	1	
043	SIX-HOLE HOLLOW HEAD SCREW	3	
044	M8 COUNTER NUT	1	
045	PLATE	1	
046	M8 BRAKE WASHER	1	
047	M6x10 SCREW	2	
048	FLAT WASHER	3	
049	HEXAGONAL NUT	3	
050	AXLE	1	
051	TENSION WHEEL	1	
052	PULLEY COVER #RAL 2008	1	
053	FLAT WASHER	2	
054	CROSS-HEAD SCREW	2	
055	CENTRAL PULLEY SUPPORT	1	
056	CENTRAL PULLEY	1	
057	ENGINE SIDE PULLEY	1	
058	LOCKING SCREW M8x10	1	
059	XPZ480 ENGINE SIDE BELT	1	
060	SPINDLE SIDE BELT V10X590	1	
061	BEARING 6202	2	
062	GREASE NIPPLE	1	
063	LOCKING SCREW	1	
064	SPINDLE SIDE PULLEY	1	
065	PULLEY SUPPORT ON MOTOR SIDE	1	
066	M4x10 SCREW	1	
067	CORE	1	
068	MAGNETIC SUPPORT	1	
069	SCREW	1	
070	SPRING	1	
071	BEARING 6205	2	
072	CROSS-HEAD SCREW	4	
073	FLAT WASHER	4	
074	RUBBER RING	1	
075	FLAT WASHER	2	
076	HEX NUT	2	
077	SPRING WASHER	2	
078	CLAMP	2	
079	FLAT WASHER	2	
080	CROSS-HEAD SCREW	2	
081	RUBBER WASHER	6	
082	SENSOR	1	

083	M16 CABLE GLAND	1	
084	M4x10 SCREW	1	
085	M4 LOCK WASHER	1	
086	M4 WASHER	1	
087	GROUND CONNECTION	1	
088	M4 DENTAL FILLING	1	
089	CONNECTION	2	
090	LAMP	1	
-	MOUNTING PLATE	1	
-	M4x8 SCREW	4	
091	CONNECTION	2	
092	SINGLE-PHASE POWER CABLE	1	
093	CROSSHEAD SCREW	1	
094	ROUND NUT	1	
095	RETURN SPRING HOUSING	1	
096	PHILLIPS SCREW	1	
097	RETURN SPRING	1	
098	SELF-TAPPING SCREW	4	
099	SELF-TAPPING SCREW	2	
100	HEXAGONAL NUT	2	
101	BACK PLATE	1	
102	SELF-TAPPING SCREW	2	
103	HEX NUT	1	
104	SIX-HOLE HOLLOW HEAD SCREW	1	
105	ELECTRONIC BOARD	1	
106	RUBBER BUTTON	1	
107	PANEL	1	
108	CROSS-HEAD SCREW	2	
109	DIGITAL DISPLAY STICKER	1	
110	LIGHT SWITCH	1	
111	CONTROL BOX SUPPORT	1	
112	ST2.9x9.5 SCREW	4	
113	SINGLE-PHASE CONTROL BOX	1	
114	SELF-TAPPING SCREW	2	
115	CROSS-HEAD SCREW	2	
116	BALL BEARING	1	
117	CIRCLIP	1	
118	RUBBER WASHER	1	
119	SIX-SIDED HOLLOW HEAD SCREW	2	
120	SIX-HOLE HOLLOW HEAD SCREW	1	
121	SIX-SIDED HOLLOW HEAD SCREW	4	
122	WHEEL SUPPORT BLOCK	1	
123	WHEEL	1	
124	AXLE	1	
125	M4x4 SCREW	1	
126	PHILLIPS HEAD SCREW	2	
127	AXLE SUPPORT	1	
128	RIVET	1	
129	POINTER	1	
130	SIX-HOLE HOLLOW HEAD SCREW	1	
131	PROBE	1	
132	TABLE #RAL 9004	1	
133	RIVET	2	
134	ANGLE GRADUATION	1	
135	RIVET	2	
136	POINTER	1	
137	TABLE LOCKING HANDLE	1	
138	WASHER SPRING	1	
139	HEXAGON HEAD SCREW	1	
140	TABLE SUPPORT	1	
141	TABLE SUPPORT COLLAR LOCKING HANDLE	1	
142	CONE DRIVER	1	
143	SPINDLE SHEATH	1	
144	BALL BEARING	1	
145	SPINDLE	1	
146	XPLR+QM CM2 - B18 CHUCK SHANK	1	
147	XPLR+MAS SELF-CLAMPING CHUCK FROM 1 TO 16 MM B18	1	
148	SINGLE-PHASE CHUCK PROTECTION KIT	1	
149	QKS8 COVER-PULLEY MICROSWITCH (250V 10A / VS10N)	1	
150	MAGNET	1	
151	RESTRAINT RING	1	
152	CROSS-HEAD SCREW	3	
153	FLAT WASHER	3	
154	SIX-HOLE HOLLOW HEAD SCREW	1	
155-2	PUNCH STOP BOX WITH HOOK	1	
155-3	SELF-TAPPING SCREW	4	
155-4	HANGING PUNCH STOP	1	

11 ELECTRICAL DIAGRAM

ELECTRICAL DIAGRAM PPE20



12 NOISE LEVEL

The noise level emitted by this machine during operation will depend on the type of material being ground and the type of grinding wheel. For this reason, the measurement data is relative.

The risk of hearing damage to the operator depends on the length of exposure to noise.
The operator must wear ear defenders or other appropriate personal protective equipment when the sound power exceeds 85 dB(A) in the workplace.

- Average sound pressure level:
  LpAm = 75.2 dB(A)
- Sound power level:
  LwA = 88.2 dB(A)

The sound power was calculated taking into account factors such as: reverberation at the test site, ground noise absorption, and other factors that may interfere with the measurements. This estimate allows us to state that the degree of error in the values obtained would be around 3 dB(A).

The values given are emission levels and not necessarily levels that allow for safe working. Although there are correlations between emission levels and exposure levels, these cannot be used reliably to determine whether additional precautions are necessary. Parameters that influence actual exposure levels include workshop characteristics, other sources of noise, etc., i.e., the number of machines and neighboring manufacturing processes. In addition, permissible exposure levels may vary from country to country. However, this information allows the machine user to make a better risk assessment.

13 VIBRATION LEVEL

The vibration data transmitted by this machine during operation will depend on the type of material being ground and the type of grinding wheel. For this reason, the measurement data is relative.
Exposure to vibrations can have serious consequences for the health of workers. A person exposed daily to high-amplitude vibrations may develop neurological and joint disorders in the long term.

The exposure level assessment is based on the calculation of the daily exposure value A(8), normalized to a reference period of 8 hours.
Whenever an employee is exposed to A(8) vibrations exceeding the daily exposure level triggering action set at 2.5 m/s², the

These values must be taken into account when assessing the level of exposure.
Regular and frequent exposure to a highly vibrating work tool exposes workers' hands and arms to chronic disorders known as "vibration syndrome."

- Average hand/arm vibration level:
  A(8) < 2.5 m/s²

employer must assess the risks of the task assigned to the employee and implement control measures.
Exposure values for vibrations transmitted to the hand-arm system:
- Daily exposure limit value A(8) = 5 m/s²
- Daily exposure action value A(8) = 2.5 m/s²

14 ENVIRONMENTAL PROTECTION

Your machine contains many recyclable materials.
This logo indicates that used machines must not be mixed with other waste.
This will ensure that the machines are recycled under the best conditions, in accordance with European Directive 2012/19/EU on waste electrical and electronic equipment.
Contact your local council or dealer to find out where your nearest collection points for used machines are located.
Thank you for your cooperation in protecting the environment.

15 WARRANTY

If the machine is covered by warranty, it must be serviced exclusively by an authorized after-sales service center.
The machine warranty is valid for 2 years from the date of purchase by the user.
This product benefits from an additional 2-year warranty extension, provided that the user registers the product on the PEUGEOT OUTILS PROFESSIONNELS website (www.peugeot.outils-pro.com) within 30 days of the date of purchase. This warranty extension is subject to the same conditions as the initial warranty.
Accessories and consumables are not covered by the warranty.
It is important to keep the invoice, which serves as the warranty certificate.
The warranty is limited to the repair or replacement of defective parts free of charge, after evaluation by the manufacturer.
For any requests for information or spare parts relating to the machine, it is essential to provide the exact information shown on the nameplate.
The warranty does not cover damage caused by the user or by a repairer not approved by Tivoly.

Link to the General Warranty Terms and Conditions:

16 DECLARATION OF CONFORMITY

CE AL DECLARATION OF CONFORMITY "ORIGINAL"

The undersigned (Manufacturer/Importer):

TIVOLY

266 ROUTE PORTES DE TARENTAISE 73790 TOURS-EN-SAVOIE

Declares that the following new machine:

- Designation: BENCH DRILL
- Brand: PEUGEOT PROFESSIONAL TOOLS
- Model: PPE20
- Reference: PPM00400001
- Serial number:

Complies with applicable harmonized legislation:

- **Machinery Directive 2006/42/EC (until January 19, 2027)**
- **EU Regulation 2023/1230 (from January 20, 2027)**

Complies with the essential safety requirements applicable to it:

- **Low Voltage Directive 2014/35/EU**
- **Electromagnetic Compatibility Directive 2014/30/EU**
- **WEEE Directive 2012/19/EU**
- **RoHS-2 Directive 2011/65/EU**
- **REACH 1907/2006**
- **Noise Directive 2003/10/EC**
- **Vibration Directive 2002/44/EC**

Done at TOURS-EN-SAVOIE
On

Stéphane Le Mounier
Managing Director

Person authorized to compile the technical file:

- Mr. LE MOUNIER – TIVOLY – 266 ROUTE PORTES DE TARENTAISE 73790 TOURS-EN-SAVOIE