

OPERATION AND MAINTENANCE MANUAL



Drill Press with drive belt
Art. 0754/230V e 0754/400V



TRANSLATION OF THE ORIGINAL INSTRUCTIONS

PREFACE



Please ensure you have read this manual before any operation

TRANSLATION OF THE ORIGINAL INSTRUCTIONS

Reading this instruction manual is required before operating any of the machinery. The guarantee that the machine will function and perform properly is strictly dependent upon the application of all the instructions contained in this manual.



Operator Qualifications

The workers in charge of using this machine must possess all the necessary information and instruction and should be given adequate training in relation to safety regarding:

- a) Conditions of use for the equipment;
- b) Foreseeable abnormal situations, pursuant to Article 73 of Legislative Decree 81/08.

We guarantee the Machine complies with the specifications and technical instructions described in the Manual on the date of its issuance (shown in this page). On the other hand, the machine may also be subject to important technical changes in the future, without the manual being updated.

Therefore, contact FERVI for information about modifications that may have been implemented.



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1 INTRODUCTION

This manual is delivered with the machine, and it must be regarded as an inseparable part of it.

The manufacturer holds all ownership to material and intellectual property of this manual; any disclosure or copying, even partial, of this publication without prior written consent is forbidden.

The purpose of this manual is to provide the knowledge necessary for the use and maintenance of the machine **Drill press Art. 0754/230V e 0754/400V** and create a sense of responsibility and an understanding of the capabilities and limitations of the means entrusted to the operator.

As the machine is entrusted to experienced and skilled operators, the following machine must be perfectly known by the operator if you want it to be used safely and effectively.

Operators must be properly trained and prepared, so make sure that this manual is read and consulted by the staff responsible for commissioning, operation and maintenance of the **Drill press**. This is to make all operations the safest and most effective possible for those who carry out these tasks.

Therefore, it is imperative to strictly comply with the requirements in this manual, a necessary condition for safe and satisfactory operation of the machine.

Prior to installation and use of the **Drill press**, authorized personnel shall:

- Carefully read this technical document;
- Know which protections and safety devices are available on the machines, their location and how they work.

It is the responsibility of the buyer to ensure that users are properly trained, that they are aware of all the information and instructions in this document and that they are aware of the potential risks that exist while working with the **Drill press**.

The manufacturer waives any and all responsibility for damage to people and/or things caused by non-observance of the instructions in this manual.

The **Drill press** was designed and built with mechanical guards and safety devices designed to protect the operator/user from possible injury. It is strictly forbidden to modify or remove guards, safety devices and caution labels. If you do so temporarily (for example, for the purposes of cleaning or repair), make sure that no one can use the machine.

Modifications to the machine carried out by the user must be considered their sole responsibility, therefore the manufacturer waives any and all responsibility for any damage caused to persons and/or property resulting from maintenance performed by unqualified personnel and in a manner unlike the operating procedures shown below.

GRAPHIC REPRESENTATION OF SAFETY, OPERATIONAL AND RISK WARNINGS

The following boxes are designed to attract the attention of the reader / user for the **proper** and **safe** use of the machine:



Pay attention

This highlights behavioural rules to prevent damage to the machine and/or the occurrence of dangerous situations.



Residual Risks

This highlights the presence of dangers that cause residual risks to which the operator must pay attention in order to avoid injury or damage to property.

1.1 Preface

For safe and easy operation of the **Drill press**, this manual must be read carefully in order to acquire the necessary knowledge. In other words, durability and performance are strictly dependent on how it is used.

Even if already familiar with the **Drill press**, it is necessary to follow the instructions contained herein, in addition to the general precautions to be observed while working.

- Acquire full knowledge of the machine.
Read this manual carefully to understand: operation, safety devices and all necessary precautions. All this is to allow safe use of the equipment.
- Wear appropriate clothing for the job.
The operator must wear appropriate clothing, so as to prevent the occurrence of unpleasant accidents.
- Maintain the machine with care.



Operating the machine

The machine must only be used by qualified personnel trained to use the machine by authorized personnel.



2 SAFETY WARNINGS

2.1 General safety rules for machine tools



Risks related to Using the Machine

Do NOT underestimate the risks related to the use of the machine and stay focused on the work you are carrying out.



Risks related to Using the Machine

Despite the implementation of all safety devices for safe use of the machine, it is necessary to take note of all the accident prevention requirements highlighted in various parts of this manual.



Risks related to Using the Machine

Every person who is responsible for the use and maintenance of the machine should first have read the instruction manual, particularly the chapter dealing with safety.

It is recommended that the plant safety manager get written confirmation of the above.



Risks related to Using the Machine

- During all work phases with the machine, you should proceed with great caution in order to avoid damage to persons, to the property or to the machine itself.
- Please use the machine only for its expected uses (drilling or tapping).
- Don't tamper with the safety devices equipping the machine.



Risks related to Using the Machine

Before starting any work on the machine, the operator must wear the appropriate personal protective equipment (PPE) such as gloves and eye protection.

1. Always check the efficiency and integrity of the machine.
2. Before connecting the machine to the mains make sure that the switch is in the rest position.
3. Do not start the machine in an enclosed or poorly ventilated area, or in the presence of a flammable and/or explosive atmosphere. Do not use the machine in damp and/or wet locations, or those exposed to rain or humidity.

4. Avoid starting accidentally.
5. Before starting the machine, get used to ensuring that no remaining adjustment or maintenance wrenches have remained inserted.
6. Keep the workplace tidy and free from hindrances; disorder causes accidents.
7. Make sure that the work environment is forbidden to children, non-employees and animals.
8. Do not perform tasks on the machine other than those for which it was designed. Only use the machine in the manner in which it was intended, as described in this instruction manual.
9. Work without disturbances.
10. Work areas must be well lit.
11. Always wear eye protection and protective gloves while working. If dust is produced, use the appropriate masks.
12. Wear appropriate clothing. Loose clothing, dangling jewellery, long hair, etc., can get caught in the moving parts, causing irreparable injury.
13. Replace worn and/or damaged parts, check that the repairs and protections work properly before operating. If necessary, have the machine checked by the service support personnel. Use only original spare parts.
14. **Cut the mains voltage supply to the machine when:**
 - The machine is not being operated;
 - It is left unattended;
 - Maintenance or adjustment work is being performed because the machine does not work properly;
 - The power cable is damaged;
 - Replacing its tool;
 - In the event the machine is being moved to another location;
 - Cleaning the machine.
15. Do not use the machine in areas with a risk of fire and/or explosion.
16. It is recommended that users of this publication, for maintenance and repair, have a basic knowledge of mechanical principles and of repair technique procedures.
17. **Management in charge of safety is to make sure that the staff responsible for using the machine has read and understood this manual in its entirety.**
18. **The company safety manager is responsible for monitoring the company's risk status according to Legislative Decree no. 81/08.**

2.2 Special rules for drill presses

1. Keep guards and protections in the correct position for safety.
2. Do not lean on tools, accidental falls can cause injuries.
3. Do not pick up moving tools.
4. Do not leave the machine until the machine has completely stopped.



2.3 Safety regulations regarding the electric system of machine-tools



Risks related to Using the Machine

1. Do not modify the electrical system in any way. Any attempt in this regard may jeopardize the operation of electrical devices, thus causing malfunction or accident.
2. Work carried out in the electrical system of the machine must, therefore, be carried out only by qualified and authorized personnel.
3. If one hears unusual noises, or feels something strange, immediately stop the machine. Then carry out an inspection and, if necessary, perform any repairs as required.

1. The supply voltage must correspond to that stated on the label and in the technical specifications (230 V / 50 Hz for Art. 0754/230V e 400V / 50 Hz for Art. 0754/400V).
2. It is necessary to use a device for the automatic interruption of the power supply in case of failure, which is to be coordinated with the machine's electrical system. For more detailed information, contact a trusted electrician.
3. The mains power outlet should be bipolar grounded (10/16 A), extension cables must have sections that are the same or greater than the sections of the power cable of the machine.
4. The power supply cable (and its possible extension cable) should never come in contact with hot objects, sharp edges, wet or oiled surfaces.
5. The power cord should be checked regularly and before each use to check for signs of damage or wear. If these are not in good condition, replace the cable.
6. Do not use the power cord to lift the machine or to remove the plug from the socket.

2.4 Technical Assistance

For any problems or concerns, please contact, without hesitation the Customer Service Department of your dealer, who has competent and specialized staff, specific equipment and spare parts.

2.5 Other provisions

IT IS FORBIDDEN TO TAMPER WITH SAFETY DEVICES

The first thing to do when starting work is to check for the presence and integrity of the protections and the operation of the safety devices.

If any defect is encountered do not use the machine!

Even more so, it is strictly forbidden to modify or remove guards, safety devices, labels and indication signs.

3 TECHNICAL SPECIFICATIONS

Description	Value
Height (mm)	1710
Weight (kg)	130
Table size (mm)	475 x 425
Rated voltage (V)	230 (0754/230V)
	400 (0754/400V)
Power (W)	1500
Spindle travel (mm)	120
Drill chuck (mm)	Ø 20 B22 CM/MT 4
Spindle travel distance (mm)	260
Sleeve (mm)	Ø 62
Column (mm)	Ø 92
Speed number	12
Speed (r/min)	150- 2450
Acoustic pressure level (dB (A))	71.1
Vibration level measured through the hand-arm system (m/s ²)	1.45



4 DESCRIPTION OF THE MACHINE

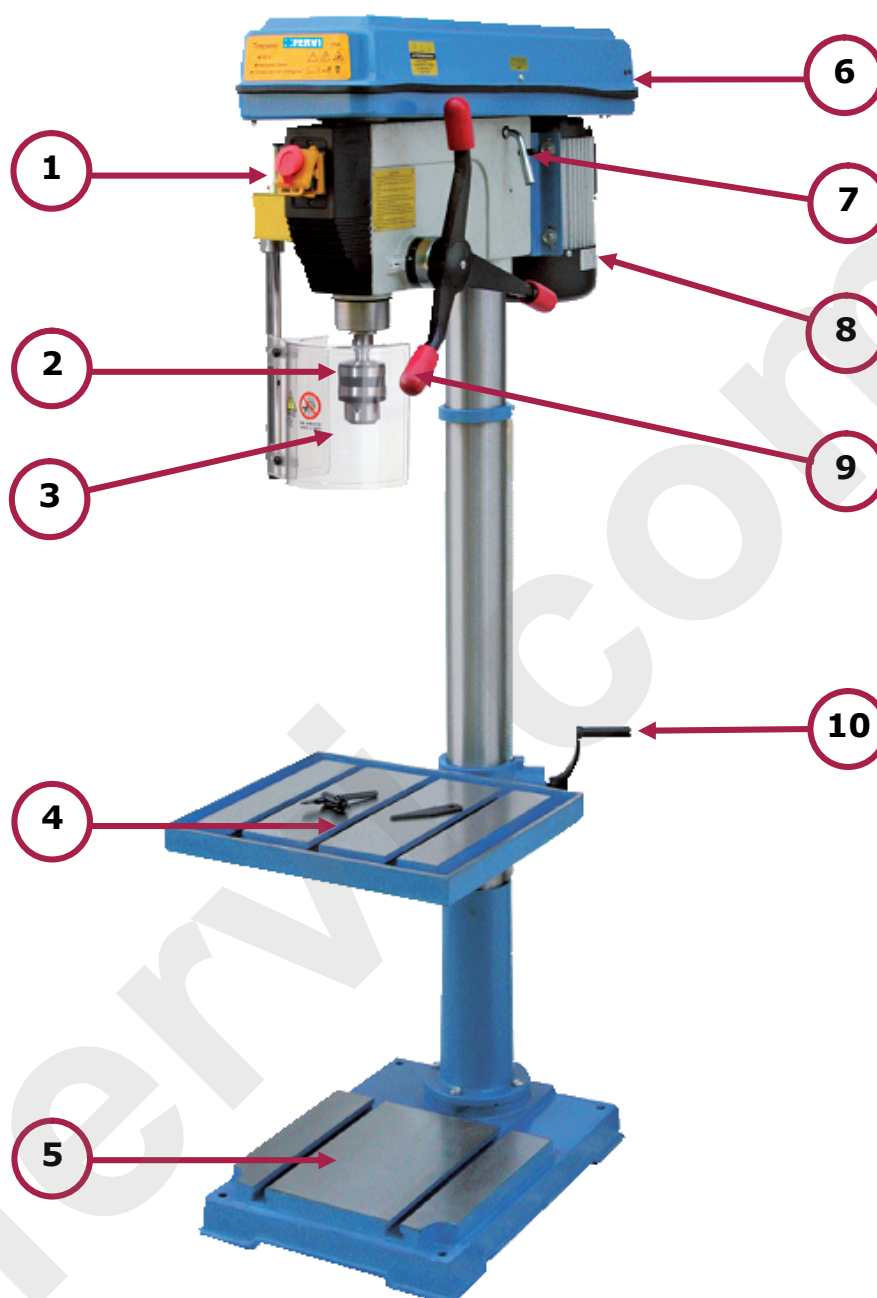


Figure 1 – General view.

1	Start / Stop button	6	Pulley Compartment Cover
2	Spindle	7	Speed control lever
3	Spindle guard	8	Electric motor
4	Work table	9	Spindle lowering handwheel
5	Support Base	10	Worktable up/down handwheel

4.1 Information plate

The following plates are attached to the machine:

Fabbricante	 Via del commercio 81 41058 Vignola MO - ITALY	Diam. Mandrino	<input type="text" value="20"/>	mm
Articolo	<input type="text" value="0754/230V"/>	Potenza	<input type="text" value="1500"/>	W
Lotto n°	<input type="text"/>	Tensione	<input type="text" value="230"/>	V
Anno di costruzione	<input type="text" value="2013"/>	Frequenza	<input type="text" value="50"/>	Hz
		Velocità max	<input type="text" value="2450"/>	giri/min


 Made in PRC


Figure 2 - EC Plate Art. 0754/230V.

Fabbricante	 Via del commercio 81 41058 Vignola MO - ITALY	Diam. Mandrino	<input type="text" value="20"/>	mm
Articolo	<input type="text" value="0754/400V"/>	Potenza	<input type="text" value="1500"/>	W
Lotto n°	<input type="text"/>	Tensione	<input type="text" value="400"/>	V
Anno di costruzione	<input type="text" value="2013"/>	Frequenza	<input type="text" value="50"/>	Hz
		Velocità max	<input type="text" value="2450"/>	giri/min


 Made in PRC


Figure 3 - EC Plate Art. 0754/400V.

MOTORE MONOFASE	
Tensione	230V
Corrente	7A
Potenza	1500W
Classe servizio	S1
Isolamento classe	B
Poli	4
Frequenza	50Hz
Giri/minuto max.	1400
Temperatura Massima	75°C
Ottobre 2013	

MOTORE TRIFASE	
Tensione	400V
Corrente	2,5A
Potenza	1500W
Classe servizio	S1
Isolamento classe	B
Poli	4
Frequenza	50Hz
Giri/minuto max.	1400
Temperatura Massima	75°C
Ottobre 2013	

Figure 4 - Motor Plates.



4.2 Pictograms 0754/230V

The following warning pictograms are attached to the machine.

NON RIMUOVERE I DISPOSITIVI DI SICUREZZA
E' SEVERAMENTE VIETATA LA RIMOZIONE E LA OMISSIONE DOLOSA
D.Lgs. 81/08

230 Volt

ATTENZIONE!
TOGLIERE LA CORRENTE PRIMA DI APRIRE IL CARTER

ATTENZIONE

- Leggere attentamente le istruzioni prima di utilizzare la macchina.
- Per qualsiasi lavoro di regolazione o manutenzione, prima di intervenire sulla macchina, togliere la spina dalla presa di corrente.
- Prima di operare, fissare saldamente alla tavola il pezzo da lavorare.
- Non avvicinare le mani all'utensile mentre è in movimento.
- Prima di avviare la macchina verificare che la chiave di serraggio del mandrino sia stata disinserita.
- Indossare sempre occhiali e guanti antinfortunistici adeguati.
- Non indossare abiti ampi, cravatte, collane, bracciali e raccogliere i capelli lunghi perché potrebbero essere agganciati dalle parti in movimento.
- Non rimuovere o disattivare dispositivi di sicurezza.
- Per altre indicazioni sulla sicurezza, si consiglia la consultazione del manuale istruzioni.

ATTENZIONE

E' VIETATO ESEGUIRE LAVORI SU APPARECCHIATURE ELETTRICHE SOTTO TENSIONE

- EVENTUALI DEROGHE DEVONO ESSERE AUTORIZZATE DAL CAPO RESPONSABILE
- IN CONDIZIONI DI PARTICOLARE PERICOLO DEVE ESSERE PRESENTE UN'ALTRA PERSONA OLTRE A CHI ESEGUE IL LAVORO

INIZIARE I LAVORI SOLO AD AVVENUTA ATTUAZIONE DELLE MISURE DI SICUREZZA
in ottemperanza al D. Lgs. 81/08 relativo alla prevenzione infortuni

4.3 Pictograms 0754/400V

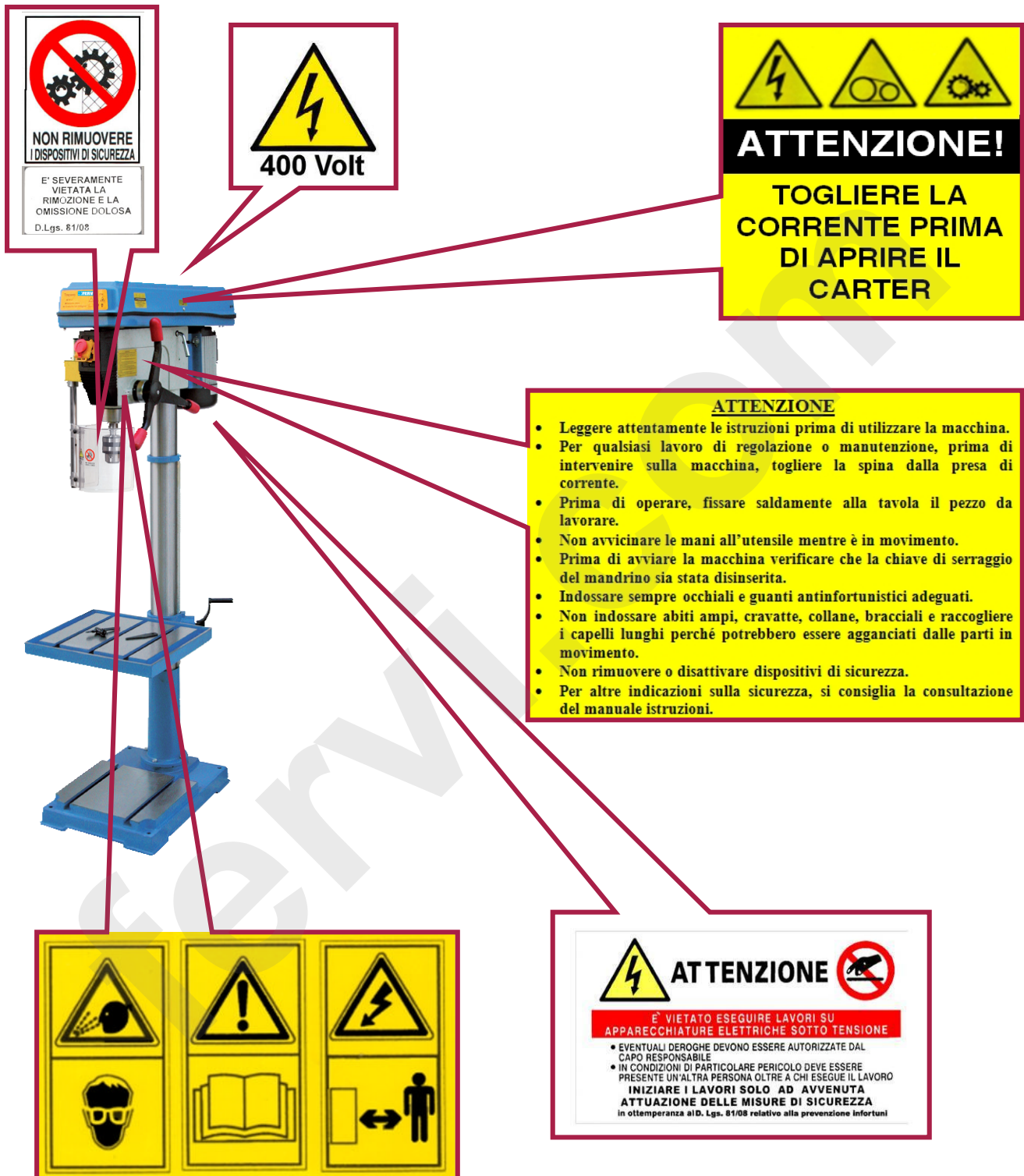


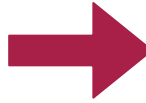
Figure 5 - Pictograms





PLATE IN ITALIAN

PLATE IN ENGLISH

 ATTENZIONE 
È VIETATO ESEGUIRE LAVORI SU APPARECCHIATURE ELETTRICHE SOTTO TENSIONE
<ul style="list-style-type: none"> • EVENTUALI DEROGHE DEVONO ESSERE AUTORIZZATE DAL CAPO RESPONSABILE • IN CONDIZIONI DI PARTICOLARE PERICOLO DEVE ESSERE PRESENTE UN'ALTRA PERSONA OLTRE A CHI ESEGUE IL LAVORO <p>INIZIARE I LAVORI SOLO AD AVVENUTA ATTUAZIONE DELLE MISURE DI SICUREZZA In ottemperanza al Dgs.81/08 relativo alla prevenzioni infortuni</p>

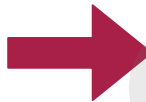


 ATTENTION 
IT IS PROHIBITED TO WORK ON LIVE ELECTRICAL EQUIPMENT
<ul style="list-style-type: none"> • ANY EXCEPTIONS MUST BE APPROVED BY THE HEAD MANAGER • UNDER PARTICULARLY DANGEROUS CONDITIONS, ANOTHER PERSON MUST BE PRESENT WHO IS NOT PERFORMING THE WORK <p>ONLY BEGIN WORKING WHEN SAFETY MEASURES HAVE BEEN IMPLEMENTED In accordance with Legislative Decree 81/08 on accident prevention</p>

ATTENZIONE

ATTENTION

- -LEGGERE ATTENTAMENTE LE ISTRUZIONI PRIMA DI UTILIZZARE LA MACCHINA
- Per qualsiasi lavoro di regolazione o manutenzione, prima di intervenire sulla macchina, togliere la spina dalla presa di corrente.
- Prima di operare, fissare saldamente alla tavola il pezzo da lavorare.
- Non avvicinare le mani all'utensile mentre è in movimento.
- Prima di avviare la macchina verificare che la chiave di serraggio del mandrino sia stata disinserita.
- Indossare sempre occhiali e guanti antinfortunistici adeguati.
- Non indossare abiti ampi, cravatte, collane, bracciali e raccogliere i capelli lunghi perché potrebbero essere agganciati dalle parti in movimento.
- Non rimuovere o disattivare dispositivi di sicurezza.
- Per altre indicazioni sulla sicurezza, si consiglia la consultazione del manuale istruzioni.



- PLEASE READ THE INSTRUCTIONS BEFORE USING THE MACHINE.
- Before carrying out any adjustment or maintenance on the machine, detach its plug from the power supply socket.
- Before operating, firmly secure the piece to be machined to the table.
- Keep hands away from the moving tool
- Always wear suitable protective glasses and masks in case of any dust
- Always wear suitable eye protection and protective gloves.
- Do not wear loose clothing, ties, necklaces, bracelets and remember to tie up long hair as it could become entangled in the moving parts.
- Do not remove or disable safety devices.
- For further information on safety, please consult the instruction manual.

NON RIMUOVERE I DISPOSITIVI DI SICUREZZA

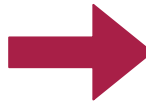
DO NOT REMOVE SAFETY DEVICES

E' SEVERAMENTE VIETATA LA RIMOZIONE E LA OMISSIONE DOLOSA

MALICIOUS OMISSION OR REMOVAL ARE STRICTLY FORBIDDEN

D.Lgs. 81/08

DECREE 81/08



ATTENZIONE!

ATTENTION!

TOGLIERE LA CORRENTE PRIMA DI APRIRE IL CARTER

BEFORE OPENING THE SHIELD, CUT POWER SUPPLY OFF.



5 ASSEMBLING THE MACHINE

5.1 Main Components

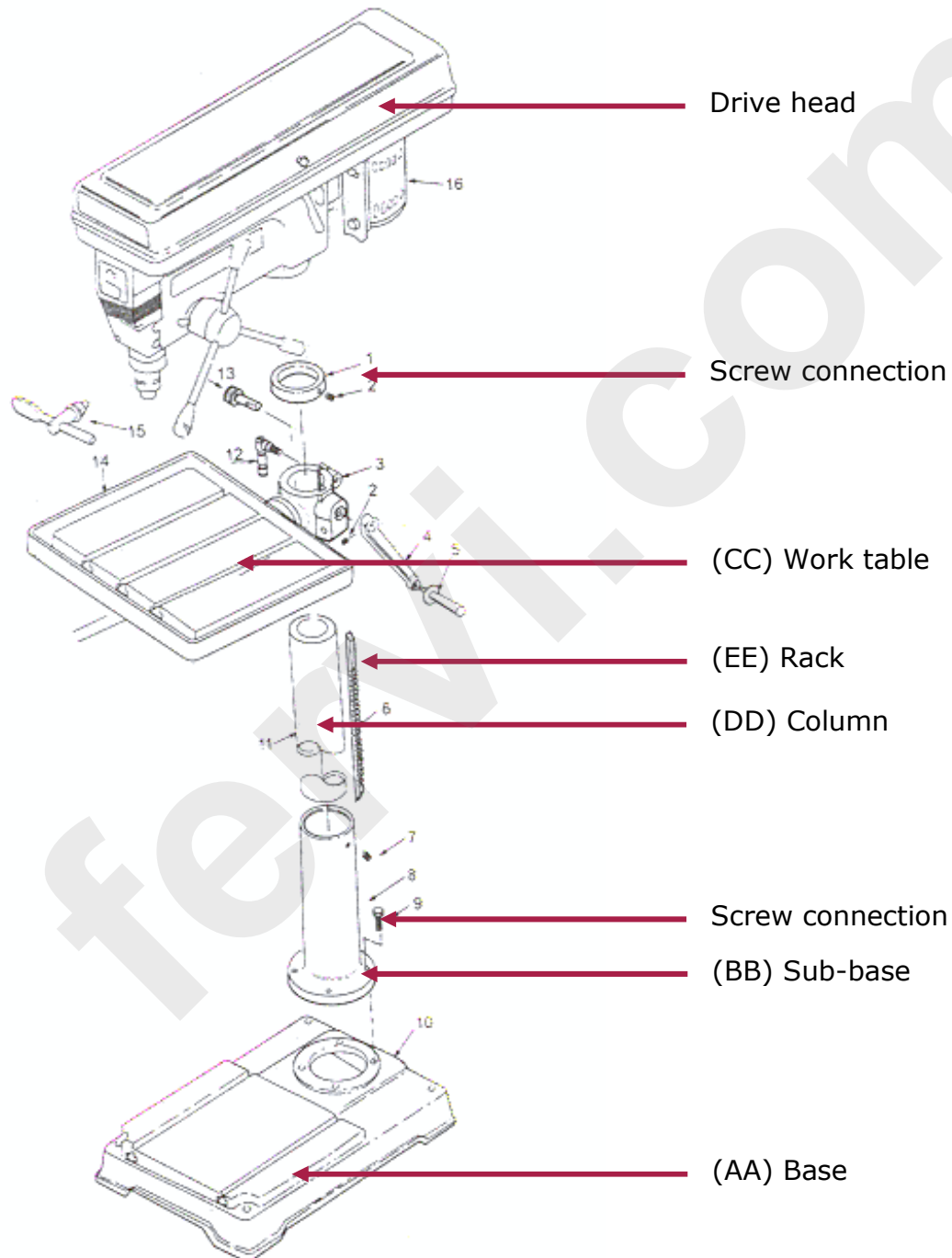


Figure 6 - Exploded view Art. 0754/230V Art. 0754/400V.



To assemble the Drill Press, follow these steps:



Staff Required

The assembly must be carried out by at least two people.



Cleaning the Machine

Before starting assembly, clean the protective product from the machine's components.

1. Attach the rack (EE) to the column (DD);
2. Place the Sub-base (BB) onto the Base (AA) and attach the two parts using the bolts;
3. Attach the work table (CC) to the column (DD) and then onto the rack (EE), by turning the crank handle on the table;
4. Put the Column (DD) on the Sub-base (BB), and tighten the bolt;
5. Secure the Drive Head on the Column (DD) using the fixing screws.
6. Tighten the knobs on each feed handle and install them in the pinion shaft hub;

5.1.1 Installation of the Shaft and the Spindle

1. Carefully clean the taper of the drill and the spindle shaft;
2. Insert the spindle shaft. Push the handle down forward to push the shaft toward the inside;
3. Fully open the chuck jaws by turning the wrench counter-clockwise until it stops;
4. Put a piece of scrap wood on the table to protect the tip of the spindle;
5. Install the spindle firmly in the shaft.

5.1.2 Installation of the Spindle Guard

To assemble the protective plexiglass to the rod, proceed as shown in the following figures:

- Attach the mounting brackets to the rod and tighten the screws Figure 7/A;
- Place the plexiglass shield in the slots of the brackets and tighten the locking screw Figure 7/B;

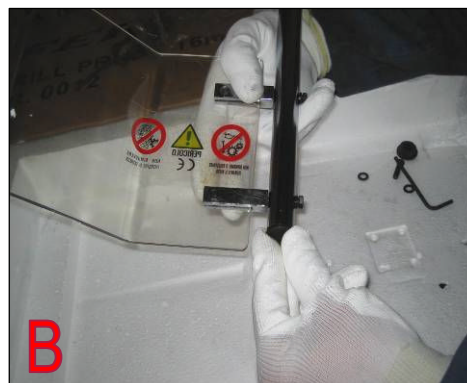


Figure 7 – Application of the brackets (A) – Insert the guard (B).



Assembling the Guard

The spindle guard must be mounted so that the stickers remain on the outside and are readable, so that they can be seen properly by the operator while using the machine.

- Place the rod inside the box containing the safety micro switch;
- Adjust the height and the opening direction so that the upper projection of the rod fits perfectly into the slot of the lid, when the guard is closed.

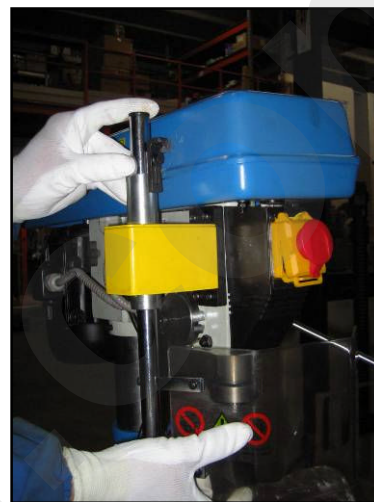


Figure 8 – Installation of the Rod Carrying the Guard.



Figure 9 – Fitting and Adjusting the End of the Rod.

- Secure the support rod carrying the guard to the head of the drill;
- The mechanical stop has a fine adjustment to better position it inside the slot of the pulley housing.



6 SWITCHES AND CONTROL LEVERS

6.1 Control Buttons

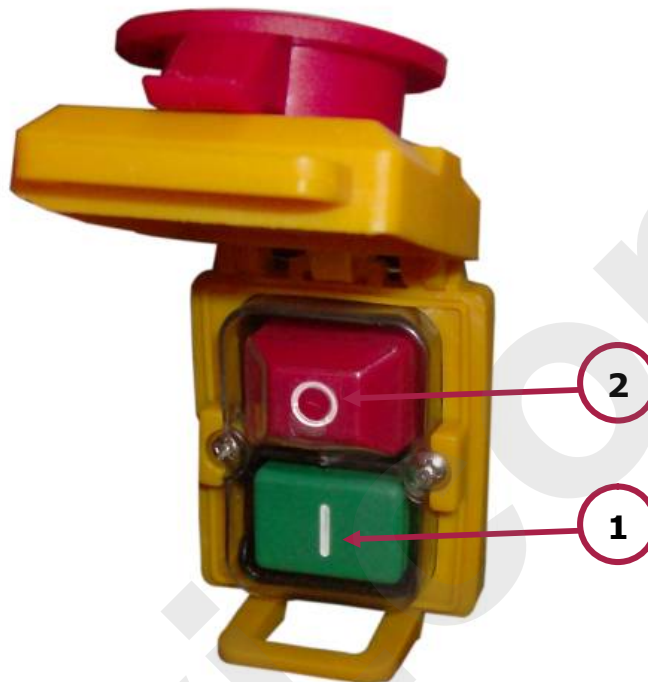


Figure 10 - Control panel.

- 1) Start Button;
- 2) Stop Button.

START BUTTON

To start the machine and the rotating tip, press the button on the side.



Figure 11 - Start button.

STOP BUTTON

To stop the machine and the rotating tip, press the button on the side.



Figure 12 - Emergency button.

EMERGENCY BUTTON

Before starting work, always make sure that the red safety cap is always lowered. When pressure is applied, the stop button is pressed and the machine stops.

Press this button in case of emergency.



Figure 13 - Emergency button.



Checking the Emergency Button

Before starting any work on the machine, the operator must ensure that the emergency stop button functions.



In case of emergency

In an emergency, press the red emergency button to stop the machine.



6.1 Control Levers

This crank allows for the height adjustment of the table. To adjust see chapter 8.1.

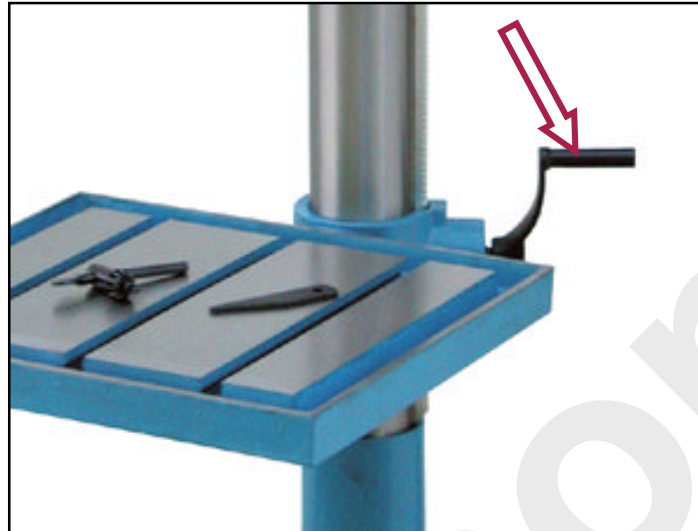


Figure 14 – Table height adjustment handle.

The steering wheel allows for the vertical displacement of the spindle and, therefore, the advancement of the tool needed for the machine to work.



Figure 15 - Hand-wheel for vertical displacement.

7 OPERATION

The Drill Press is a very easy machine to use. It has the function of making holes in metal.



Operating the machine

The drill press should be used only with tools for processing holes (drill bits, countersinks and equivalents).



Risk of Crushing

Before using the machine, make sure that the base is fixed to the floor to prevent movement or loss of stability.

The machine is used as follows:

- Lift the work table to the desired height via the appropriate crank;
- The operating speed of the machine is changed via the transmission belt;
- Secure the workpiece on the table;
- Press the green button (1) to turn on the machine and rotate the spindle;
- Lower the spindle with the wheel located on the right side of the drill;
- When done, lift the spindle with the wheel and then turn the machine off with the red button (2).



Risk of injury

The workpiece must be firmly fixed to the table (with the vice) while operating the machine. The workpiece must never be held in position by hand.



8 MACHINE ADJUSTMENT

8.1 Adjusting the Table

Adjustment of the work table is only carried out vertically through the following operations:

- Loosen the knob located on the left side of the table;
- Raise the table by moving the crank handle up to the desired height;
- Tighten the knob located on the left side of the table;

8.2 Adjusting the Drilling Depth

To control the depth of drilling, it is necessary to lower the tip of the chuck assembly to the desired depth.

8.3 Adjusting the Speed

To adjust the speed of the machine, proceed as follows:

- Open the protective cover of the drive belt and loosen the motor mounting handle;
- Set the drilling speed by adjusting the five positions of the belt;
- Adjust the belt tension by pushing the motor backwards;
- Tighten the handle securely and close the protective cover.

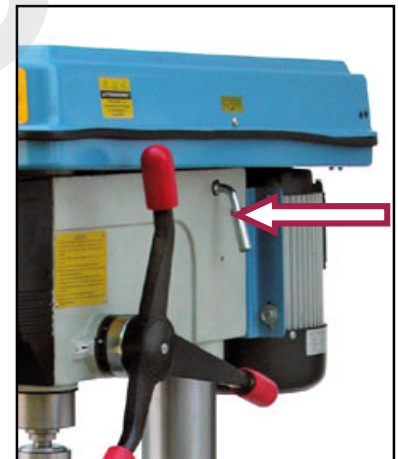


Figure 16 - Speed adjustment lever.

9 SAFETY DEVICES ON THE MACHINE

9.1 Grounding

In case of malfunction or breakdown, grounding provides a path of least resistance for the electrical current that reduces the danger of electrical shock. The tool is equipped with a power cord with ground conductor and plug. The plug must be plugged into an appropriate outlet and installed on the ground according to the regulations.

Never change the plug provided for any reason. If it will not fit the socket, entrust a qualified electrician to install the proper socket.



Electric Shock

Incorrectly connecting the conductor to the tool's grounding system can cause the risk of electric shock.

If the electric cord or plug need to be repaired or replaced, do not connect the conductor to tool's grounding system to a live terminal.

If you do not understand the instructions for grounding or if you doubt the exact grounding of the machine, check with a qualified electrician.

Repair or replace damaged or worn cords immediately.

Reconnection of the tool must take place in accordance with regulations.



9.2 Safety devices

INTERLOCKING MOVEABLE GUARD

This device prevents contact between the operator and the moving spindle while the drill is operating.

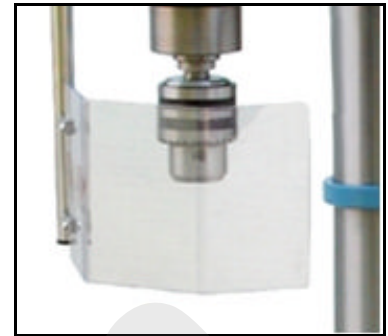


Figure 17 Spindle interlocked movable guard.

PULLEY COMPARTMENT LOCKING DEVICE

This device has the function of locking the pulley compartment in a closed position when the drill is in operation, so that the machine's moving parts can not be accessed when they are in motion.



Figure 18 - Pulley compartment locking device.



Checking the safety devices

Each time the Drill is used, check that the devices function well; if they do not function, do not use the machine.

10 MAINTENANCE

10.1 Routine maintenance

Using a compressor, routinely blow away the dust that accumulates inside the motor and the pieces of metal remaining on the table and on the tip.



Worn power cable

Immediately replace the power cable when you notice that it is worn, cut or damaged.

Every 50 hours, or every 5 days, lubricate the gear mechanism, the rack that lifts the table and the grooves of the spindle with oil.

Every 300 hours or every 6 months during the life of the machine, a thorough check of operation, and wear and tear on the machine is to be carried out by a qualified technician. Lubricate bearings 3 and 4 with oil.

Every 600 hours or every year during the life of the machine , lubricate bearings 1-2 by removing the pulley.

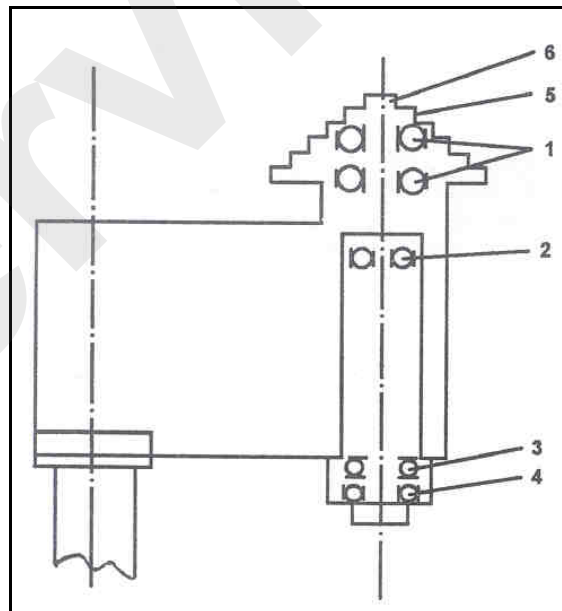


Figure 19 – Spindle bearings.

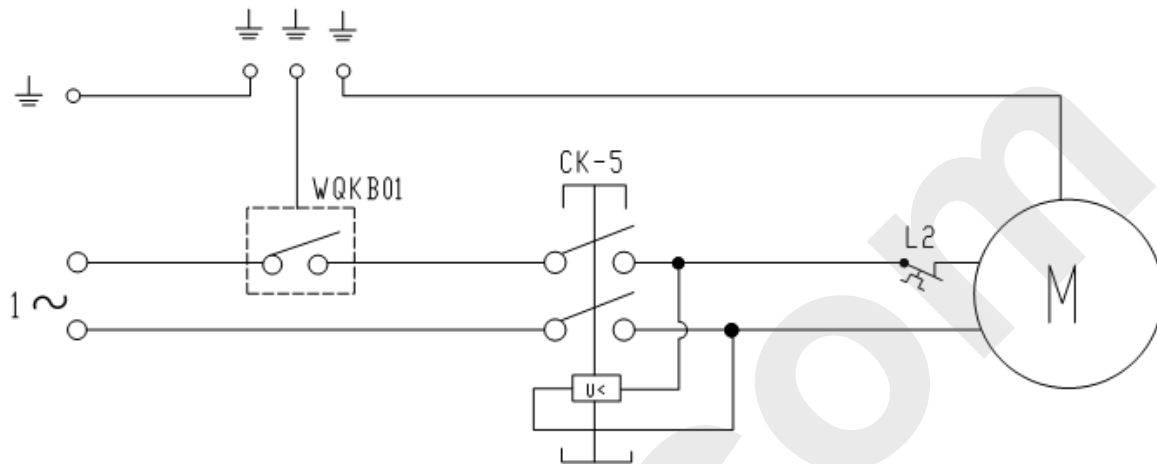


11 TROUBLESHOOTING

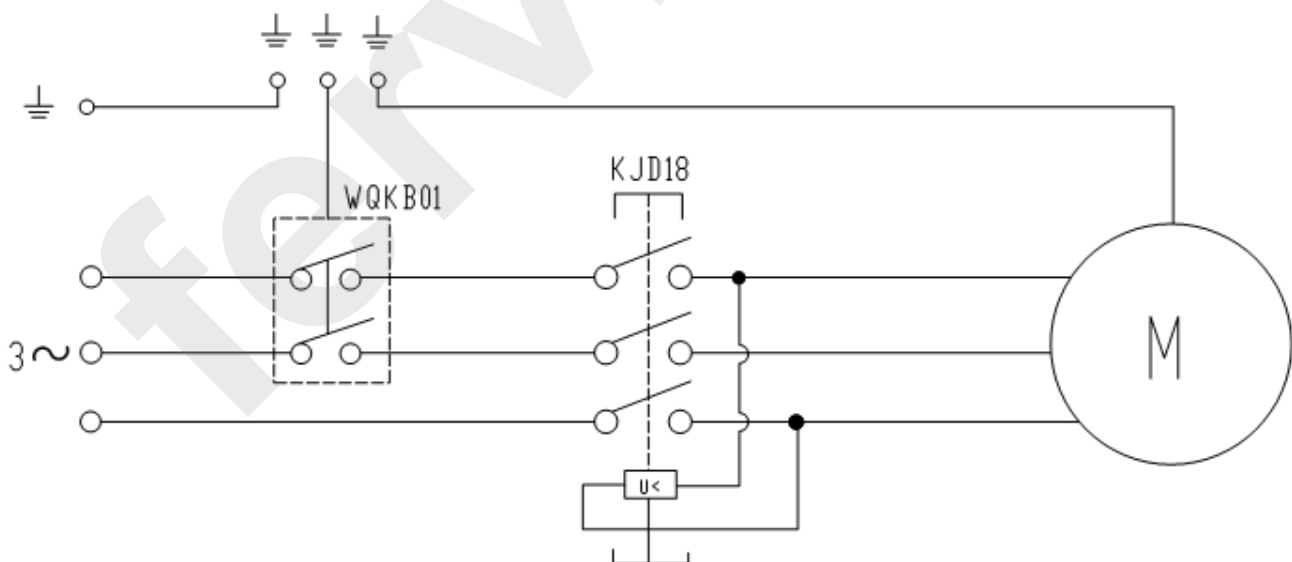
PROBLEM	PROBABLE CAUSE	SOLUTION
Noisy operation.	A) Incorrect belt tension. B) Dry spindle. C) Loose Pulley. D) Loose belt. E) Broken bearing.	A) Adjust the tension. B) Remove the spindle sleeve and lubricate. C) Tighten the pulley. D) Adjust the belt tension. E) Replace the bearing
Excessive wobbling of the spindle.	A) Loose spindle. B) Worn spindle shaft or bearings. C) Broken spindle.	A) Tighten the spindle shaft. B) Replace the spindle shaft or bearings. C) Replace the spindle.
The motor will not start.	A) Electrical power supply. B) Motor connection. C) Switch connections. D) Burnt motor windings. E) Broken switch.	A) Check the mains power supply. B) Check the motor connection. C) Check the switch connections D) Replace the motor. E) Replace the switch.
The tip is jammed in the workpiece.	A) Excessive forward pressure on the handle. B) Loose belt. C) Loose tip. D) Speed is too fast.	A) Apply less pressure. B) Check the belt tension. C) Tighten the tip. D) Change the speed.
The tip is burning or smoking.	A) Incorrect speed. Revolutions per minute. B) Shavings will not discharge. C) Tip is worn or does not cut the material well. D) Needs lubrication. E) Incorrect feeding pressure.	A) See table speed. B) Clean the tip. C) Check the sharpness and taper. D) Lubricate while drilling. E) Apply less pressure.
Raising the table is difficult.	A) Needs lubrication. B) Bent rack. C) The table is clamped into position.	A) Lubricate with light oil. B) Straighten the rack. C) Loosen the clamp.
The tip vibrates, the hole is not round.	A) Knot in the wood, the tip was sharpened off-center. B) Wrong tip.	A) Sharpen the tip correctly. B) Replace the tip.
The spindle will not stick to the sleeve.	A) Dirt, grease or oil in the morse taper. B) Running in an unauthorized mode.	A) Use detergents (alcohol, etc.) to clean the conical part of the drill and the spindle. B) Drilling causes the failure.

12 WIRING DIAGRAM

12.1 Art. 0754/230V



12.2 Art. 0754/400V





13 DISPOSAL OF PARTS AND MATERIALS

If the machine is to be scrapped, its parts must be disposed of separately.

Machine materials include:

- Steel, aluminium and other metal components.
- Plastic materials.
- Copper cables, motors and electric components.



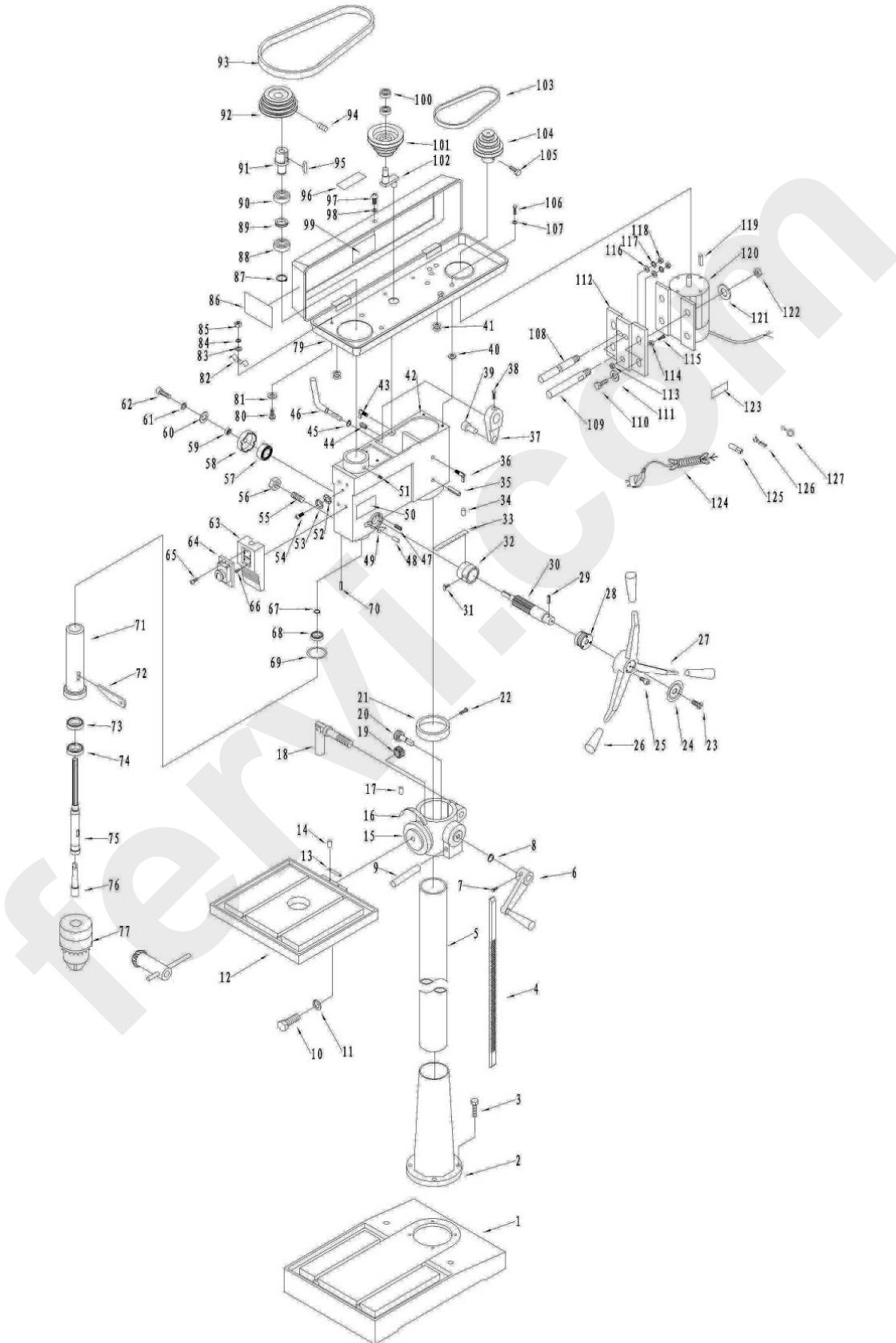
Respect the environment!

Contact a specialist centre for the collection of metallic materials.



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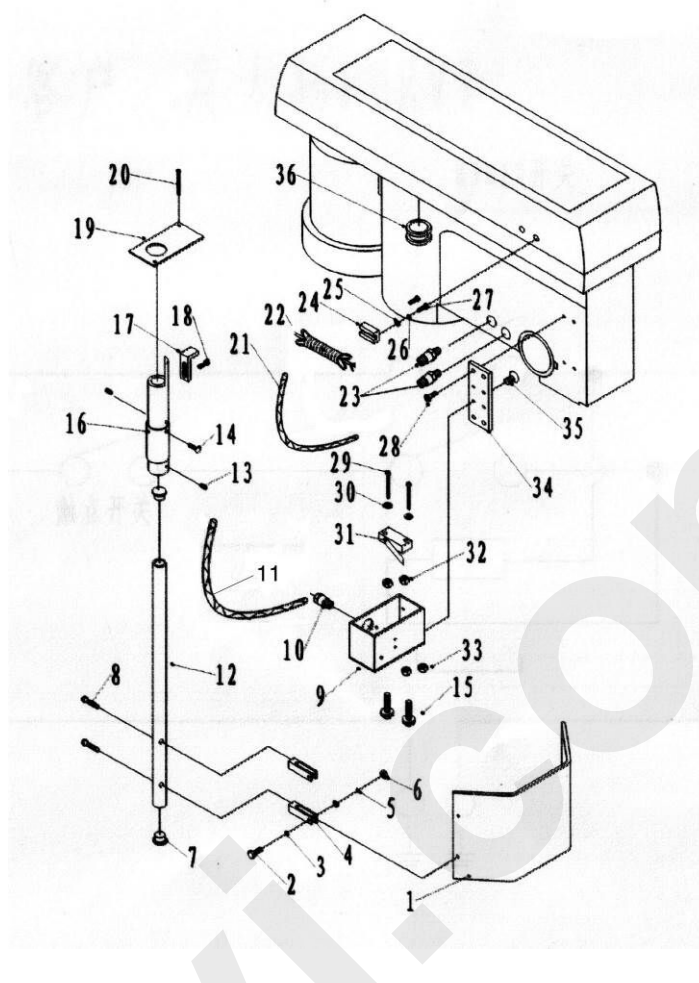
14 REPLACEMENT PARTS





Ref.	Description	Ref.	Description
0754/001	Base	0754/039	Pin
0754/002	Flange	0754/040	Washer
0754/003	Bolt	0754/041	O-ring
0754/004	Rack	0754/042	Head
0754/005	Column	0754/043	Handle
0754/006	Table lifting handle	0754/044	Bolt
0754/007	Bolt	0754/045	Retainer ring
0754/008	Retainer ring	0754/046	Lifting handle
0754/009	Shaft	0754/047	Pin
0754/010	Bolt	0754/048	Rivet
0754/011	Locking washer	0754/049	Switch
0754/012	Table	0754/050	Warning label
0754/012A	Table with three grooves	0754/051	Bolt
0754/013	Label	0754/052	Washer
0754/014	Rivet	0754/053	Washer
0754/015	Table holder clamp	0754/054	Bolt
0754/016	Table inclination graduated scale	0754/055	Bolt
0754/017	Rivet	0754/056	Washer
0754/018	Clamp tightening handle	0754/057	Spring
0754/019	Sprocket	0754/058	Spring seat
0754/020	Worm screw	0754/059	Nut
0754/021	O-ring	0754/060	Flat washer
0754/022	Bolt	0754/061	Locking washer
0754/023	Bolt	0754/062	Bolt
0754/024	Cover	0754/063	Switch box
0754/025	Bolt	0754/064	Switch
0754/026	Spindle feed lever handle	0754/065	Bolt
0754/027	Spindle feed lever housing	0754/066	Bolt
0754/028	O-ring	0754/067	Retainer ring
0754/029	Pin	0754/068	Bearing
0754/030	Shaft	0754/069	O-ring
0754/031	Bolt	0754/070	Pin
0754/032	End feed ring nut	0754/071	Sleeve
0754/033	Normal feed graduated scale	0754/072	Spindle removal wedge
0754/034	Rivet	0754/073	Bearing
0754/035	Pin	0754/074	Bearing
0754/036	Handle	0754/075	Rod
0754/037	Lifting handle	0754/076	Shaft
0754/038		0754/077	Spindle

Ref.	Description	Ref.	Description
0754/079	Pulley Compartment Cover	0754/104	Pulley
0754/080	Bolt	0754/105	Bolt
0754/081	Washer	0754/106	Bolt
0754/082	Support button	0754/107	Flat washer
0754/083	Flat washer	0754/108	Shaft
0754/084	Locking washer	0754/109	Shaft adjustment
0754/085	Nut	0754/110	Bolt
0754/086	Label	0754/111	Flat washer
0754/087	Retainer ring	0754/112	Connecting plate
0754/088	Bearing	0754/113	Nut
0754/089	O-ring	0754/114	Nut
0754/090	Bearing	0754/115	Bolt
0754/091	Grooved shaft	0754/116	Flat washer
0754/092	Pulley	0754/117	Locking washer
0754/093	Belt	0754/118	Nut
0754/094	Bolt	0754/119	Key
0754/095	Key	0754/120	Motor
0754/096	Warning label	0754/121	Flat washer
0754/097	Bolt	0754/122	Nut
0754/098	Flat washer	0754/123	Nut
0754/099	Speed label	0754/124	Motor label
0754/100	Bearing	0754/125	Electric cable
0754/101	Pulley	0754/126	Insulation jacket
0754/102	Shaft	0754/127	Clamp
0754/103	Belt	0754/128	Clamp



Ref.	Description	Ref.	Description
0754/A01	Spindle guard	0754/A19	Upper plate
0754/A02	Bolt	0754/A20	Screw
0754/A03	Washer	0754/A21	Motor power supply cable
0754/A04	Clamp guard	0754/A22	Power supply cable
0754/A05	Washer	0754/A23	Grommet
0754/A06	Nut	0754/A24	Fixed casing seat
0754/A07	Cap	0754/A25	Flat washer
0754/A08	Bolt	0754/A26	Locking washer
0754/A09	Electrical components box	0754/A27	Screw
0754/A10	Cable gland	0754/A28	Screw
0754/A11	Micro switch power supply cable	0754/A29	Screw
0754/A12	Guard rod	0754/A30	Washer
0754/A13	Grub screw	0754/A31	Micro switch
0754/A14	Screw	0754/A32	Nut
0754/A15	Bolt	0754/A33	Nut
0754/A16	Plain bearing	0754/A34	Mounting plate
0754/A17	Fixed casing bracket	0754/A35	Screw
0754/A18	Screw	0754/A36	Grommet

15 DRILL PRESS ACCESSORIES

	ACCESSORIES (in a separate box)	PARTS/GROUPS
1	Chuck key (see figure below)	1 Group
2	Wedge shaft	1 Group
3	Feeding knobs	3 Parts
4	Regulating know for support table height	1 Group
5	Table support mounting bolt	1 Part
6	Table arm mounting bolt	1 Part
7	Upper pulley cover know and screw	1 Group
8	Flange screws and washers	1 Group
9	Allen wrenches	1 Group