

User manual

V 1.0 EN

 **EUROBOOR**
FOR PROFESSIONALS BY PROFESSIONALS

Magnetic drill stand

with standard electromagnet

F16+

Serial number:

Date of purchase:

 /

Don't forget to register your machine at:

www.euroboor.com/register

[only when registered you benefit from extended warranty]

Congratulations on purchasing this premium magnetic drill stand. At Euroboor we strive to exceed our customers' expectations by developing and providing premium and innovative portable drilling and cutting solutions. We believe that a professional like you must be able to rely on a professional supplier. Which has led us to become a major player in the industrial world, with our own factory and several offices worldwide. All because we have always listened to our customers and to the demands from the market.

Our vision is focused on developing innovative portable tools that add value for our customers and facilitate them in their daily work. We never lose sight of sustainability, time savings and cost savings.

Enjoy your new drill stand!

Before operating your new drill stand, please first read all instructions. You find the instructions in this manual and on the warning label on your drill stand. With proper use, care and maintenance your drill stand will provide you with years of premium performance.

TO REDUCE THE RISK OF INJURY USER MUST READ AND UNDERSTAND ALL INSTRUCTIONS

To view all our offices and their contact information please visit: www.euroboor.com

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1. Safety

1.1 General safety instructions

Do not use this magnetic drill stand before you have thoroughly read and completely understood this manual, specifically the “General safety instructions” and “Specific safety information”, including the figures, specifications, safety regulations and the signs indicating DANGER, WARNING and CAUTION.



WARNING: When using electrical tools basic safety precautions should always be followed to reduce the risk of fire, electrical shock and personal injury.

Please also observe the relevant national industrial safety regulations. Non-observance of the safety instructions can lead to an electric shock, burns and/or severe injuries.

This manual should be kept for later use and enclosed with the magnetic drilling machine, should it be passed on or sold.

Work area

1. Keep your work area clean and well lit. Cluttered and dark work areas increase the chance of accidents;
2. Do not operate a magnetic drill stand in explosive atmospheres, such as in the presence of flammable liquids, gases or dust;
3. Keep bystanders, children and visitors away while operating a magnetic drilling machine. Distractions can cause you to lose control.

Electrical safety

1. A magnetic drill stand plug must match the outlet. Never modify the plug in any way. Do not use any adapter plugs;
2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded;
3. Do not expose the drill stand to rain or wet conditions. Water will increase the risk of electric shock;
4. Do not abuse the cord. Never use the cord to carry the drill stand or pull the plug from an outlet. Keep the cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock;
5. When operating a magnetic drill stand, use an extension cord suitable for outdoor use, this reduces the risk of electric shock;
6. If operating a magnetic drill stand in a damp location is unavoidable, use a residual current device (RCD), this reduces the risk of electric shock.

Personal safety

1. Stay alert, watch what you are doing and use common sense when using a drill stand. Do not use while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating may result in serious personal injury;
2. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts;

3. Avoid accidental starting. Be sure the switch is off before plugging the stand in. Carrying a magnetic drill stand with your finger on the switch or plugging in a magnetic drill stand that has the switch on increases the change of accidents;
4. Never place hands, fingers, gloves or clothing near drilling area or rotating machine parts;
5. Remove adjusting keys or switches before turning the power on. A wrench or a key that is left attached to a rotating part may result in personal injury;
6. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the drill stand in unexpected situations;
7. Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat and hearing protection must be used for optimal safety;
8. Always use supplied safety chain during any work on non-horizontal surfaces. Magnetic drill stand can release from surface.

When using this magnetic drill stand, you MUST wear ear and eye protection.

Use and care

1. When using the drill stand on non-horizontal surfaces, you must use cutting paste. Do not use oil because the oil can drip into the unit;
2. During operations, the drill you are using must be cooled and lubricated with good quality cutting or lubrication oil;
3. Use clamps or other practical solutions to secure and support the workpiece to a stable platform. Holding the workpiece by hand or against your body is unstable and may lead to loss of control;
4. Do not use the drill stand when the switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired;
5. Disconnect the plug from the power source before making any adjustments, changing accessories or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally;
6. Store your magnetic drill stand out of reach for children and other untrained persons. Tools are dangerous in the hands of untrained users;
7. Maintain your drill stand with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to break and are easier to control;
8. Check for misalignment of moving parts, breakage of parts and any other condition that may affect the operation. If you detect damage have the drill stand serviced before use. Many accidents are caused by poorly maintained tools;
9. Only use accessories that are recommended by Euroboor for your model. Accessories that are suitable for one machine may become hazardous when used on another machine.

Service

1. Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in risk of injury;
2. When servicing a tool, use only identical replacement parts. Follow instructions in the maintenance section of this manual. Use of unauthorised parts or failure to follow maintenance instructions may create a risk of electric shock or injury;
3. Euroboor offers Armature kits containing official Euroboor spare parts suitable for your magnetic drilling machine.

1.2 Specific safety information

- Keep your fingers away from the drilling area;
- Avoid touching the drill chips. Contact with these chips when hot, or if they falls, can cause personal injuries;
- Always use the safety chain. Before switching on the machine ensure that the guard is closed securely;
- Always use the safety chain;
- The magnetic drill stand is suitable for use on steel with a thickness starting from 6 mm (1/4"), with zero air gap between the magnet core surface and the mounting surface. Curvature, coats of paint and surface irregularities will create an air gap. Keep the air gap to a minimum;
- Always place the drill stand on a flat surface;
- Do not clamp the magnetic drill stand on small or irregular shaped objects;
- Always place the drill stand on a surface that is clear of shavings, chips, swarf and surface dirt;
- Keep the magnet clean and free of debris and swarf;
- Do not switch on the power before checking whether the magnetic stand has been tightened firmly to the mounting surface;
- Adjust the table so the drill bit does not extend into the workpiece before drilling. Do not perform any design, assembly or construction activities on the workpiece while the machine is switched on;
- Before switching on the power, make sure all accessories have been mounted correctly;
- Do not switch on the machine until it has been mounted and installed according to all above mentioned instructions;
- Always use the recommended speed for the accessories and material you are working with;
- Do not use the drill stand on the same workpiece on which electric welders are working;
- Only use an appropriate cutting lubricant. Euroboor offers a wide range of well-considered cooling and lubrication products to match your requirements;
- Do not use liquid cutting fluids while drilling vertically or overhead. Dip the drill bit in cutting paste or apply an appropriate spray for these applications;
- In case of a jam, turn off the drill stand, disconnect the drill stand from the power supply and then remove the reason for the jam before turning on the power again.

Residual risk

In spite of following the relevant safety regulations and their implementation, certain residual risks cannot be avoided. These are:

- Impairment of hearing
- Risk of personal injury from flying particles
- Risk of burns due to accessories becoming hot during operation
- Risk of personal injury due to prolonged use.

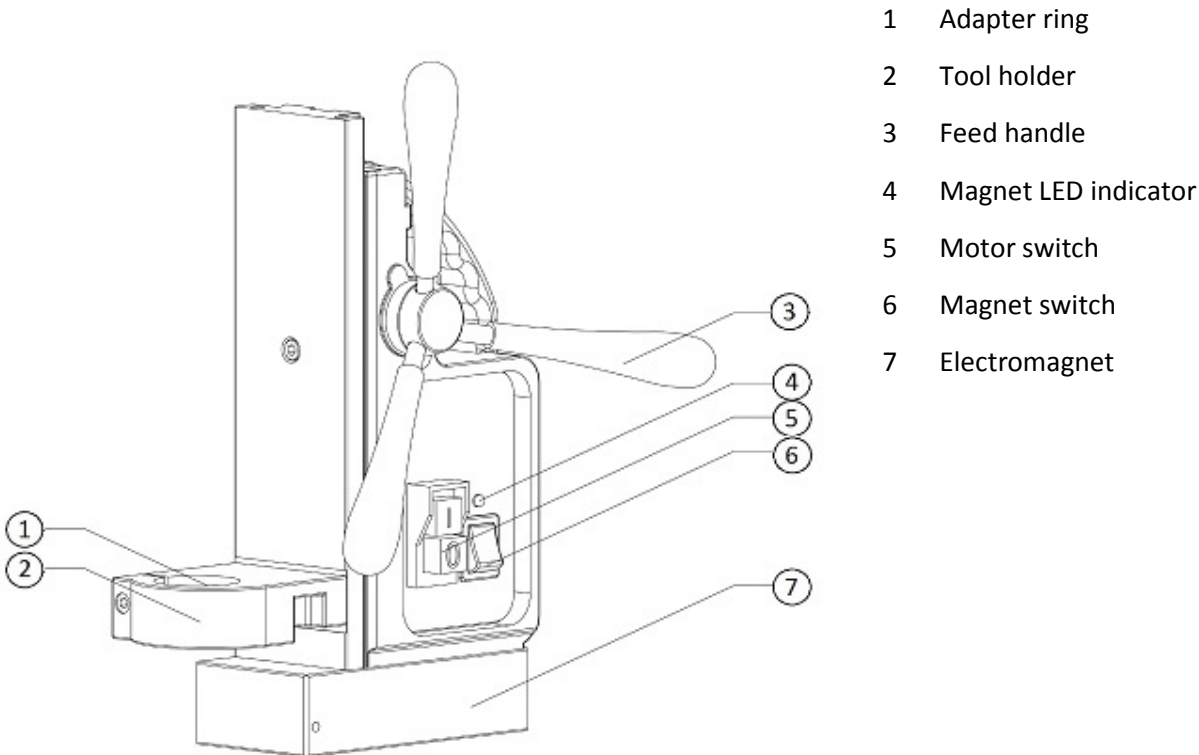
Always try to reduce these risks as much as possible.

2. Description

2.1 Intended use

This magnetic drill stand is intended for commercial use as a tool to hold and control hand-held electronic drilling machines, and in that combination for drilling materials with a magnetisable surface using twist drills in a weather-protected environment using the application tools and accessories recommended by Euroboor. The drill stand can be used horizontally, vertically or overhead.

2.2 Description and features



[image 2-1]

2.3 Case content

- 1 x F16+ Magnetic drill stand
- 3 x handles
- 1 x hex key 2.5 mm
- 1 x hex key 4 mm
- 1 x hex key 5 mm
- 1 x filler ring inner Ø 33 mm
- 1 x filler ring inner Ø 38 mm
- 1 x safety chain
- 1 x user manual
- 1 x safety ear protection
- 1 x safety goggles
- 1 x safety gloves

2.4 Serial number

The serial number is mentioned on the machine two times: engraved on the frame and engraved on the magnet. Additional serial no. stickers are provided with the machine for your administration.

The serial number will help you, your dealer and Euroboor to validate and identify the machine.

For example:

0161909001

breaks down to:







<i>016</i>	<i>19</i>	<i>09</i>	<i>001</i>
Machine series			
	Year of manufacture		
		Month of manufacture	
			Identification number

2.5 Technical data

	Metric	Imperial
Twist drilling*	∅ 1 - 16 mm	∅ 1/16" - 5/8"
Length	310 mm	12 3/16"
Width	170 mm	6 11/16"
Height	325 - 495 mm	12 13/16" - 19 1/2"
Stroke	170 mm	6 11/16"
Weight	7.5 kg	16.7 lbs
Magnet (l x w x h)	160 x 80 x 36 mm	6 5/16" x 3 1/8" x 1 7/16"
Magnetic force	1,200 kg	2,645 lbs
Voltage	110 - 120 V / 60 Hz 220 - 240 V / 50 - 60 Hz	

*Depends on hand drill

2.6 Symbols

Symbol	Term, meaning	Explanation
	Read documentation	Be absolutely sure to read the documentation in this user manual and specifically the "General safety instructions" and "Specific safety information".
	Wear ear protection	Use ear protection during operation.
	Wear eye protection	Use eye protection during operation.
	Danger/warning/caution	Read and apply the information in the adjacent text!
	European conformity symbol	Confirms the conformity of the magnetic drilling machine with the directives of the European Community.
	Class of protection I	Product with basic insulation and exposed (touchable) conductive parts additionally connected to the protective earth conductor.
mm	Millimeter	Unit of measure for the dimensions.
"	Inch	Unit of measure for the dimensions.
kg	Kilogram	Unit of measure for the mass.

lbs	Pound	Unit of measure for the mass.
V	Volt	Unit of measure for the electric voltage.
A	Ampere	Unit of measure for the electric current intensity.
W	Watt	Unit of measure for the output.
rpm	Revolutions per minute	Unit of measurement for the revolutions.
no	No load speed	Revolution speed at no load.

2.7 Environmental



Separate collection. This product must not be disposed of with normal household waste.



Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or at the retailer when you purchase a new product.

3. Preparation & adjustment

3.1 Assembly



WARNING: To reduce the risk of injury, turn power off and disconnect from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure all switches are in the OFF position. An accidental start-up can cause injury.

Fitting the feed handles

1. Fit each of the three feed handles by screwing them into the hub in clockwise direction;
2. Tighten firmly by hand.

The handles are supposed to face slightly outward. Be careful not to cross-thread any of the components.

Fitting the safety chain

1. Pass the safety chain through the frame grip opening;
2. Wrap the chain around the workpiece;
3. Securely close the chain using the lock.



WARNING: Always use the safety chain when drilling vertically and/or up-side-down. The safety chain does not replace the magnetic force of the drill stand: it is simply used to secure against falling in the event of a magnet malfunction.

3.2 Prior to use

Please make sure that the contacting surface for the magnet is level, clean and rust free.

Remove any varnish or primer. When working on materials that are not magnetisable, suitable fixation devices, obtainable as accessories from Euroboor, e. g. suction plate, vacuum plate or pipe-drilling machine must be used.

When working on steel materials with a material thickness of less than 6 mm (1/4"), the workpiece must be reinforced with an additional steel plate in order to guarantee the magnetic holding power.

Check the drill stand for possible damage; Before using the drill stand, you must carefully check the protective components or slightly damaged components to ensure they are operating perfectly and as intended.

Check that moving parts are in perfect working order, do not jam and check whether the parts are damaged. All parts must be correctly installed and fulfill all conditions necessary to ensure perfect operation of the drill stand.

Damaged protective components must be repaired or replaced according to specifications by Euroboor or any authorised Euroboor dealer.

DO NOT use under wet conditions or in presence of flammable liquids or gases.

DO NOT let children come into contact with the drill stand. Supervision is required when inexperienced operators use this tool.

Electrical safety

The electric magnet and controls have been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate.

Your Euroboor magnetic drill stand is designed in class I (grounded) according to EN 61029-1. Earth wire is required.

If the supply cord is damaged, it must be replaced by a specially prepared cord available at Euroboor or your Euroboor dealer.

Extension cable

If an extension cable is required, use an approved 3-core extension cable suitable for the power input of this tool (see technical data). The minimum conductor size is 1.5 mm²; the maximum length is 30 meter. When using a cable reel, always unwind the cable completely.

Useful tips

- Try a few simple projects using scrap material until you develop a “feel” for the magnetic drill stand;
- Never use the tool with serious overload;
- Keep the drill stand clear from moisture at all times to protect the tool, yourself and others.

4. Using the magnetic drill stand



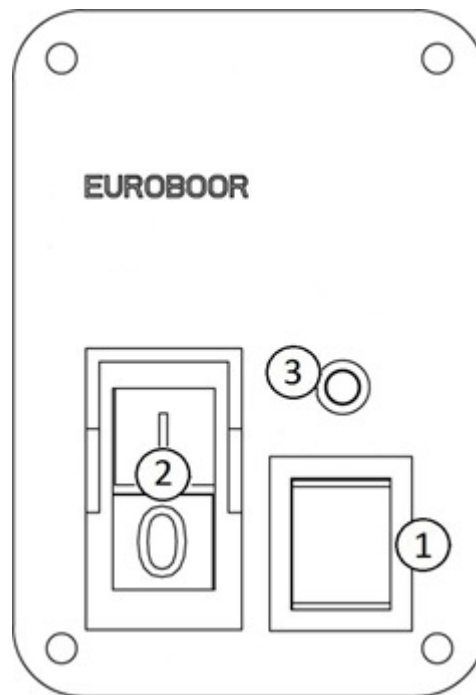
WARNING: Always observe the safety instructions and applicable regulations.



WARNING: To reduce the risk of serious personal injury, turn the power off and disconnect the tool from power source before making any adjustments or removing/installing attachments or accessories.

4.1 Control panel

The control panel on your magnetic drill stand is designed for maximum ease of use and safety.



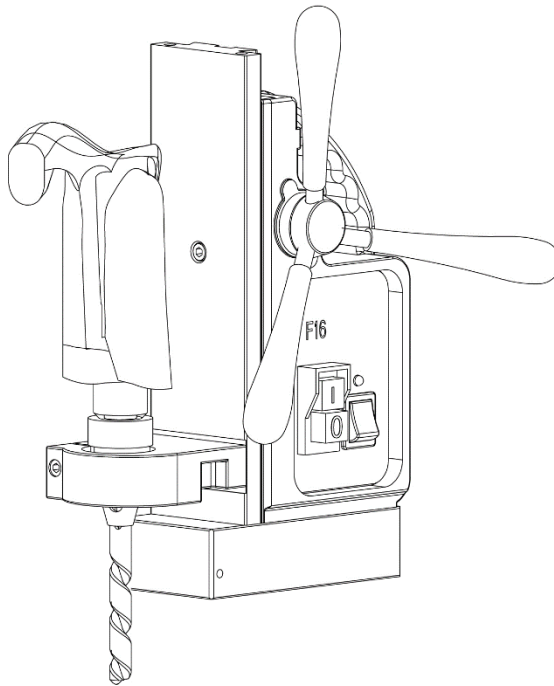
1. Magnet switch
2. Motor switch
3. Magnet LED indicator

[image 4-1]

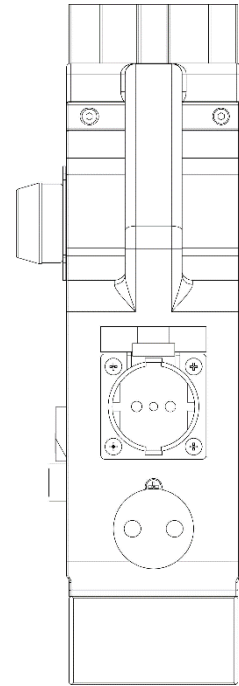
4.2 Installation of hand drilling machine

1. Measure the collar of the hand drilling machine you want to place in the drill stand. The drill stand is suitable for use with $\varnothing 43$ mm (1 11/16"), $\varnothing 38$ mm (1 1/2") or $\varnothing 33$ mm (1 5/16") collars;
2. Loosen the bolt on front of the tool holder slightly. Do not remove the bolt;
3. Prepare the tool holder for the hand drilling machine:
 - a. $\varnothing 43$ mm collar: no insert;
 - b. $\varnothing 38$ mm collar: insert only the 1 piece adapter ring (inner $\varnothing 38$ mm);
 - c. $\varnothing 33$ mm collar: insert only the 2 piece adapter ring (inner $\varnothing 33$ mm);
4. Place the hand drilling machine in the tool holder as deep as the collar on the hand drilling machine allows. Make sure only the collar and no other parts are placed inside the tool holder (image 4-2);

5. Tighten the bolt on front of the tool holder. Do not overtighten;
6. Check if the Voltage and Hertz rating of the fitted hand drilling machine matches with the magnetic drill stand;
7. Check if the power plug of the fitted hand drilling machine corresponds with the power socket on the back of the drill stand (image 4-3);
8. Place the power plug of the fitted hand drilling machine in the power socket of the magnetic drilling stand correctly and tightly;
9. Make sure the power cable of the hand drilling machine stays clear of the general drilling area.



[image 4-2]

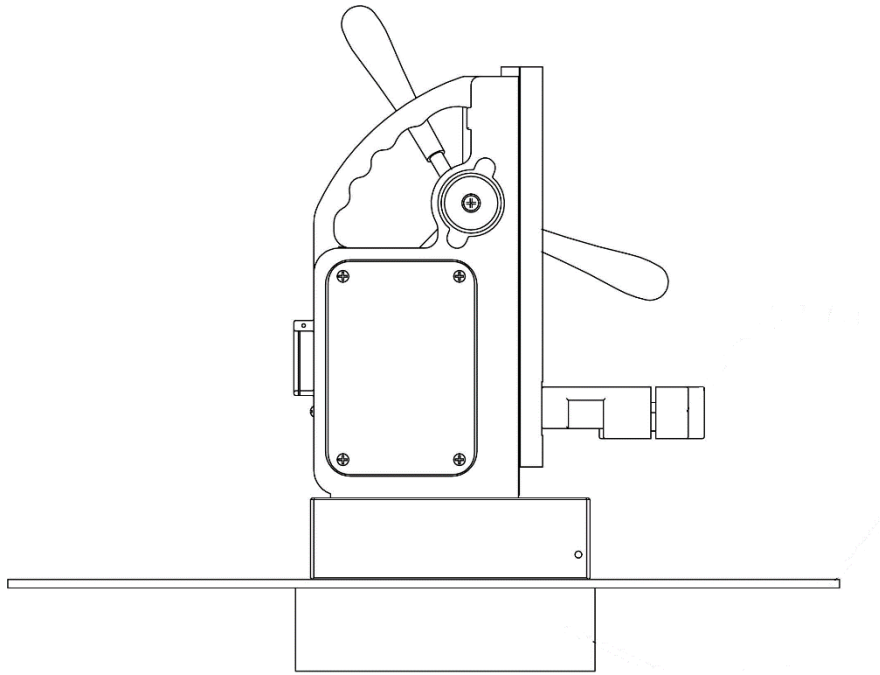


[image 4-3]

4.3 Electromagnet

Make sure the magnetic drill stand is placed on a smooth, clean, level and solid surface without any objects or debris to guarantee maximum adhesion.

The workpiece must at least be 6 mm (1/4") thick for the magnet to stick and to drill safely. In case the workpiece is between 3 mm (1/8") and 6 mm (1/4"), make sure to make a proper base to create a good magnetic field as shown below.



[image 4-4]

The electromagnet will work best on surfaces of at least 10 mm (3/8") thickness.

When the electromagnet is not able to create a good enough magnetic field, this may be caused by

- Surface not being flat;
- Workpiece is not magnetisable (e.g. aluminium);
- Workpiece is coated or painted;
- Workpiece is not thick enough.

In this situation the magnet indicator will light up red. Make sure to solve any of these matters before proceeding in any way and creating unsafe situations.

Using the magnet:

1. Place and position the drill stand on the workpiece;
2. To activate the magnet, press the red magnet switch:
The magnet switch will be lit (red);
The LED indicator lights up GREEN when generated magnetic force is sufficient;
3. To deactivate the magnet, press the same switch again.



WARNING: Do not use this drill stand when LED indicator is RED. Magnet may not generate sufficient attachment force.

We want to point out that above mentioned precautions and indicators do not guarantee that the magnet will not release from the material. Euroboor accepts no liability when it comes to the magnet indicator not functioning or functioning poorly.

Make sure that the magnet attaches tightly to the work piece before turning on the power of the magnetic drill stand. Euroboor magnets have two coils; make sure that both coils are in contact with

the material. Do not connect any other machine to the same electrical outlet to which the magnetic drill stand is plugged into, as it may result in the loss of magnetic force.

Always use the safety chain included. Drilling above your head is extremely dangerous and is not recommended. For the use of magnetic drilling machines on pipes, not-flat or non-magnetic materials, we refer to our catalogue or our website www.euroboor.com where several vacuum tightening systems, pipe clamping systems and Tube machines can be found.

4.4 Switching hand drilling machine on and off

The hand drilling machine will only work with an activated magnet. To switch the power supply ON, press the green button with marking "I". To switch the power supply OFF, press the red button with marking "O".

4.5 GYRO-TEC safety

This Euroboor magnetic drill stand is equipped with GYRO-TEC safety functionality. It features a gyroscopic sensor which detects acceleration and displacement in any direction. Whenever the drill stand recognizes a sudden or unwanted movement the power supply will be shut down automatically by the stand's electronics. This safety functionality offers protection to the user in various circumstances, such as:

- Sudden loss of magnetic force while in operation;
- Excessive vibration caused by incorrect drilling procedure, worn-out cutting tools, etc;
- Sudden displacement of the workpiece to which the drill stand is attached.

By the power shutting off automatically, risk of damaging or hurting the drill stand, tools, workpiece and operator is reduced.

Every time the power is turned on, the drill stand's electronics need a moment to run a systems check and initiate the safety system. The GYRO-TEC safety feature engages three seconds after the power is on.

It is very important to note that this functionality raises the safety level, but does not prevent the operator from using the drill stand incorrectly. The operator should always follow instructions described in this manual and take all necessary safety precautions.

4.6 Power surge and fluctuation protection

This drill stand is equipped with power surge and fluctuation protection, making the drill stand suitable for use in areas and workplaces where power supply is of less quality.

The drill stand will shut down part of the electronics and the motor by itself when the drill stand cannot cope with insufficient or unreliable power supply. This prevents the control unit(s) in the drill stand from breaking by cause of power supply, and thus unexpected downtime and high repair cost. In such a situation the magnet will remain switched on.

Power surge protection

The drill stand is able to cope with voltage spikes up to **4,000V (1-2μs)**.*

Power fluctuation protection

The drill stand is able to cope with voltage and frequency fluctuations ranging from:

110 Volt to 130 Volt - 45 Hz to 65 Hz

220 Volt to 240 Volt - 45 Hz to 65 Hz

When the frequency is too high or too low, so it falls outside of above mentioned range, the motor will not start. If the frequency of the power supply falls outside the range or fluctuates strongly during your drilling job, the motor will shut off automatically.*

*** Disclaimer: Euroboor is not liable for any damage caused to the drill stand due to electrical problems in the workplace. Above mentioned protection is not guaranteed in all cases of voltage and frequency spikes or fluctuations. Euroboor accepts no liability when it comes to the power surge fluctuation protection not functioning or functioning poorly.**

In the situation of the motor being shut off automatically as self-protection, you should:

- Shut off the magnet;
- Disconnect the drill stand from the power source;
- Fix the source of the problem, by either;
 - o Making sure the issues with the power source is fixed;
 - o Connect the drill stand to a different and reliable power source;
- Continue using the drill stand as described in this user manual.

4.7 Tool lubrication

Horizontal, vertical and overhead applications

Dip the drill bit in cutting paste or apply an appropriate spray.

Make sure to use only suitable cutting lubricants. Euroboor offers a wide range of cutting lubricants for all tool and material combinations. Proper lubrication will help you create better and faster results, and extend the lifetime of your tools.

5. Working with drilling accessories

5.1 Twist drills

Drilling conditions

The ease with which material can be drilled depends on several factors including tensile strength and abrasion resistance. Whilst hardness and/or strength is the usual criterion, wide variations in machinability can exist among material showing similar physical properties.

The drilling conditions are dependent on requirements for tool life and surface finish. These conditions are further restricted by the rigidity of the tool and the workpiece, lubrication and machine power available. The harder the material, the lower the cutting speed.

Some materials of low hardness contain abrasive substances leading to rapid cutting edge wear at high speeds. Feed rates are governed by rigidity of set-up, volume of material to be removed, surface finish and available machine power.

Drilling a hole

Now that you have read the information and safety recommendations above, you are ready to actually start drilling. Follow these 12 steps for best drilling result:

1. Install the drill bit according to original instructions of your hand drill;
2. Precisely mark the center of the hole;
3. Place the magnetic drill stand in the correct position by letting the tip of the twist drill meet the marked center of the hole;
4. Switch on the magnet and verify that the drill is in the right position and that the drill stand is pushed tight against the work piece;
5. Make sure the hand drilling machine is switched on and (if possible) drilling speed is set correctly following the original instructions of the hand drilling machine. Switch the fitted hand drilling machine on with the motor on/off switch on the magnetic drill stand and allow it to run at the required speed;
6. Turn the feed handles to start drilling. Apply only a slight pressure when the drill bit touches the metal. Do not push the drill bit with force into the meta;
7. Apply a regular pressure while drilling. The drilling performance does not improve by putting more pressure on the drill stand. Too much pressure will overload the motor of your hand drill and your drill bit will be worn sooner;

Let the drill bit do its job and give it time to cut the metal!

8. Apply cooling fluid when necessary. Stop drilling regularly to do so;

9. Apply less pressure when the drill cuts through the material;
10. Turn the feed handles to put the drill stand in highest position and switch off the power supply;
11. Remove the burrs, metal chips and clean the drill bit and surface without getting injuries.

Caution: The metal drill chips can be sharp and very hot!

6. Maintenance

Your Euroboor magnetic drill stand has been designed to operate over a long period of time. Continuous satisfactory operation depends upon proper tool care and regular cleaning.



CAUTION: To reduce the risk of injury, turn the drill stand off and disconnect the tool from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the switch is in the OFF position. An accidental start-up can cause injury.

Just as every drill stand with moving parts, your Euroboor magnetic drill stand also needs regular maintenance service. A few recommendations follow :

Visually check the drill stand for damage

The drill stand must be checked before operating for any signs of damage that will affect the operation of the tool. Particular notice must be taken of the main cable, if the drill stand appears to be damaged it should not be used. Failure to do so may cause injury or death.

Cleaning

- Clean all dirt, dust, metal chips and burrs of your drill stand;
- Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents. Wear approved eye protection and an approved dust mask;
- Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Operation of the drill stand

The drill stand's operation must be checked to ensure that all components are working correctly. Replace any defective parts immediately. This prevents properly functioning parts from being damaged.

Check magnetic base

Before every operation the magnetic base should be checked to make sure that the base is flat and there is no damage present. An uneven magnet base will cause the magnet to hold not as efficiently and may cause injury to the operator.

When the drill stand is put out of use for a longer period, apply a small amount of machine oil to the underside of the magnetic base for rust protection. Clean the magnetic base again with next use.

Adjustment of slide

An essential requirement of the drill stand is that the slide can move in a smooth and controlled manner, free of lateral movement and vibration.

This situation can be maintained by periodic adjustment of the slide and can be accomplished in the following manner:

1. Place the drill stand in an upright position and, by means of the capstan, raise the slide to its highest position. Clean the aluminum rails and apply a small amount of light machine oil to the wear surfaces;

2. Gently feed in setting screw with supplied Allen key 2.5 until slight resistance is encountered. Follow your way down adjusting all setting nuts and screws;
3. Operate the slide up and down a few times to test the movement and make any further necessary adjustments. Try to ensure that all the screws are exerting a uniform pressure on the slide from top to bottom. A perfectly adjusted slide will operate freely up and down without any sideways movement.

Lubricating the feed travel

The feed travel should be lubricated periodically with grease to ensure smooth operation.

- Raise the motor unit to the highest position possible;
- Lubricate the dove-tail guideway at both sides;
- Lubricate the gear rack.

After repeated use, the gear rack may become loose. If necessary, adjust the five self-locking set screws at the left side. Tighten screws in series until the gear rack moves freely in the dove-tail guideway but does not allow the motor to wobble.

Repair, modification and inspection

Repair, modification and inspection of Euroboor Magnetic drill stands must be done by Euroboor or an Euroboor authorised dealer. The spare parts list will be helpful if presented with the drill stand to the Euroboor dealer for service when requesting repair or other maintenance.

Euroboor drill stands are constantly being improved and modified to incorporate the latest technological advancements. Accordingly, some parts (i.e. part numbers and/or design) may be changed without prior notice. Also, due to Euroboor's continuing program of research and development, the specifications of drill stands are subject to change without prior notice.



WARNING: *Since accessories, other than those offered by Euroboor, have not been tested with this tool, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only Euroboor recommended accessories should be used with this drill stand.*

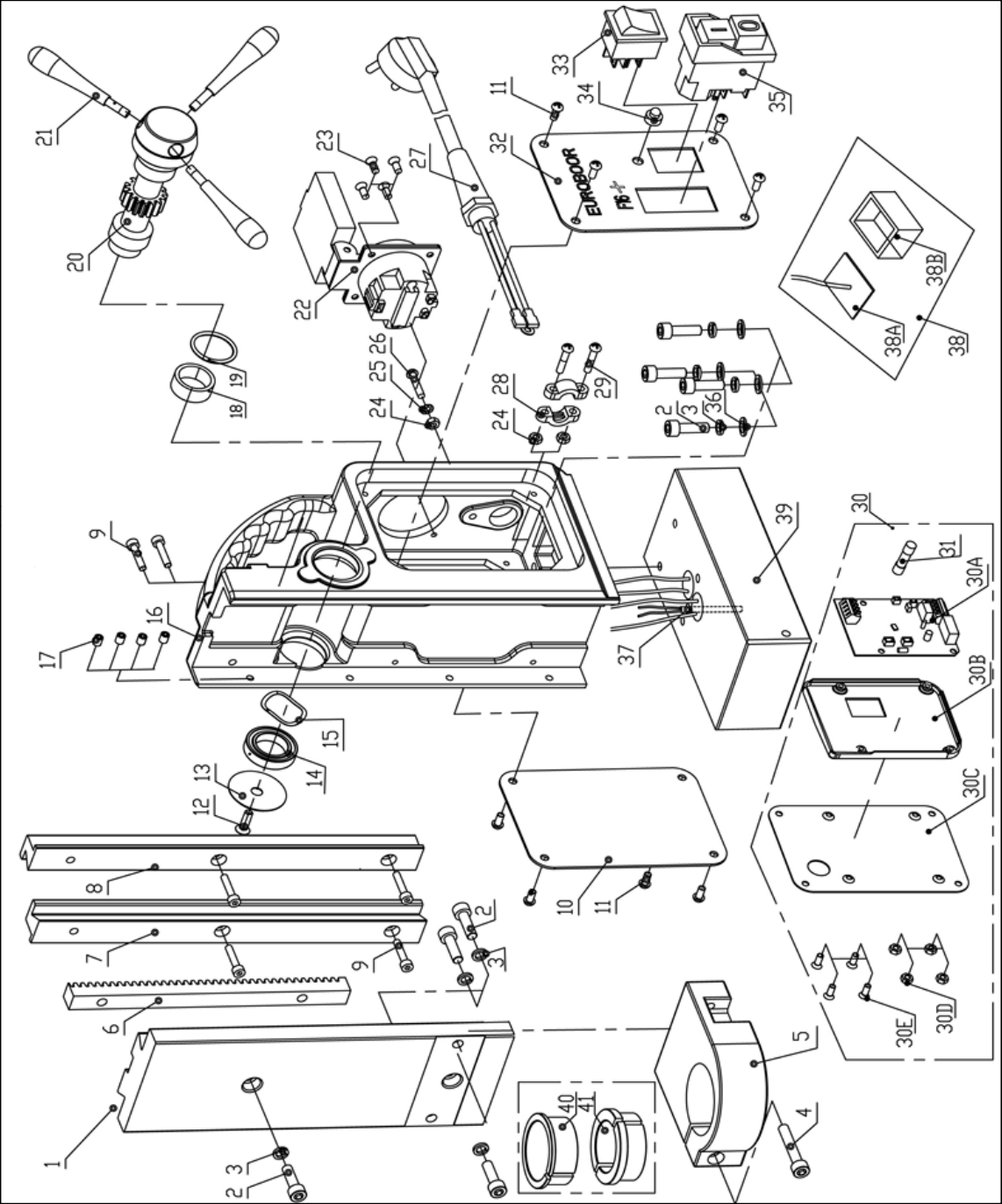
Consult your dealer for further information on the appropriate accessories.

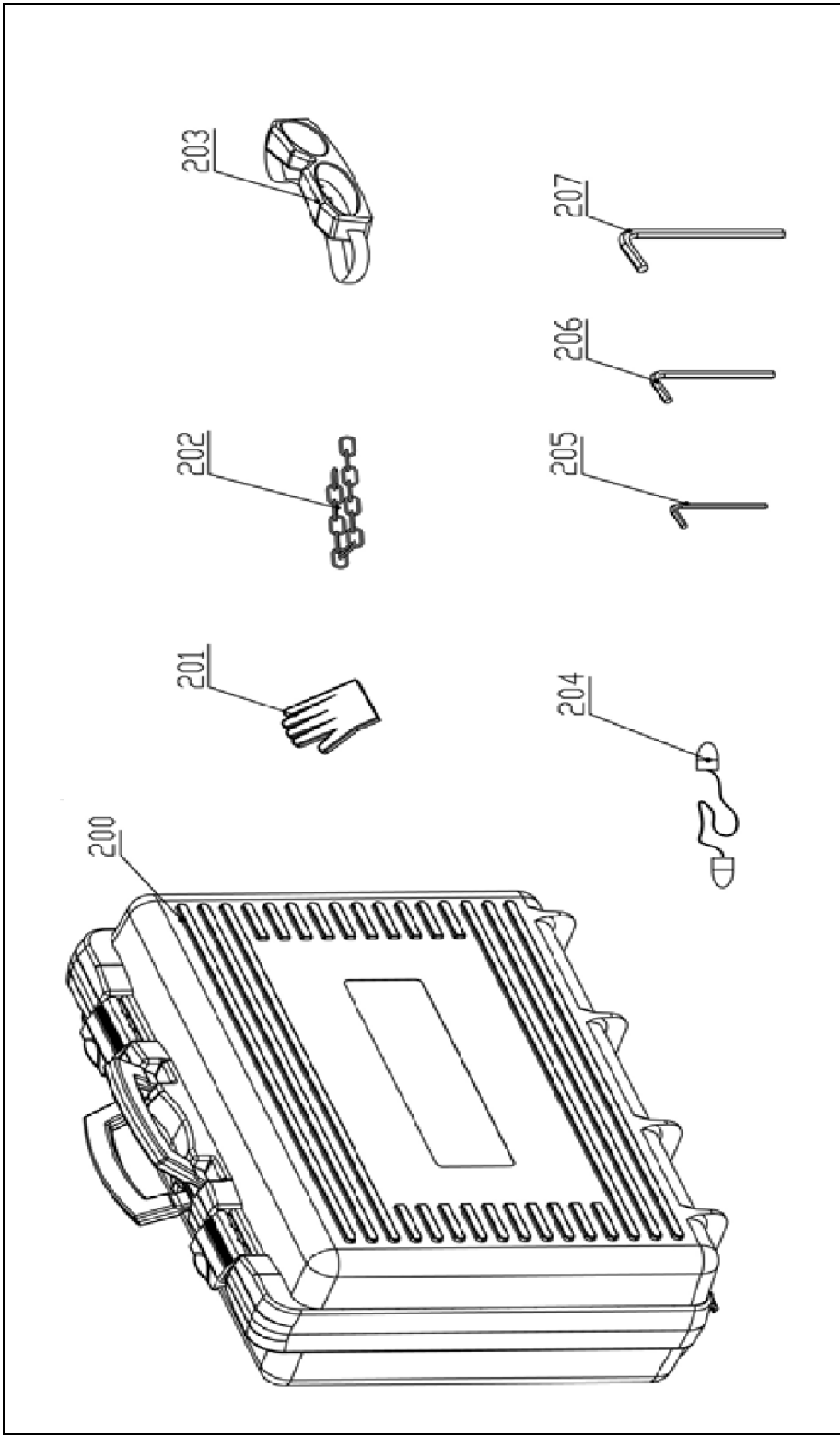
7. Trouble shooting

Magnet and power supply do not function	<ul style="list-style-type: none"> - The magnet switch is not connected to the power supply - Damaged or defective wiring - Defective fuse - Defective magnet switch - Defective control unit
Magnet does function, the power supply does not work	<ul style="list-style-type: none"> - Damaged or defective wiring - Defective magnet switch - Defective On / Off switch - Defective control unit
Magnet does not function, the power supply does	<ul style="list-style-type: none"> - Defective magnet - Defective wiring of magnet - Defective control unit
Drill bits break quickly, holes are bigger than the drill bits	<ul style="list-style-type: none"> - Clearance in the guide - Unbalance in the hand drilling machine
Guiding takes a great deal of effort	<ul style="list-style-type: none"> - Guide is set too tight - Guide is dry, needs to be greased - Guide/gear- rack/rotation system dirty or damaged
Insufficient magnetic force	<ul style="list-style-type: none"> - Damaged or defective wiring - Bottom of magnet not clean and dry - Bottom of magnet not flat - Workpiece is not bare metal - Workpiece is not clean or flat - Workpiece is less than 6 mm (too thin) - Defective control unit - Defective magnet
Frame under voltage	<ul style="list-style-type: none"> - Damaged / defective wiring - Defective magnet - Damaged / defective hand drill
Fuse blows when magnet switch is turned on	<ul style="list-style-type: none"> - Damaged or defective wiring - Wrong value fuse - Defective magnet switch - Defective control unit - Defective magnet
Fuse blows when power supply is turned on	<ul style="list-style-type: none"> - Damaged or defective wiring - Wrong value fuse - Defective control unit - Damaged / defective hand drill
Rotation system free stroke too long	<ul style="list-style-type: none"> - Loose or defective gear rack - Defective rotation system

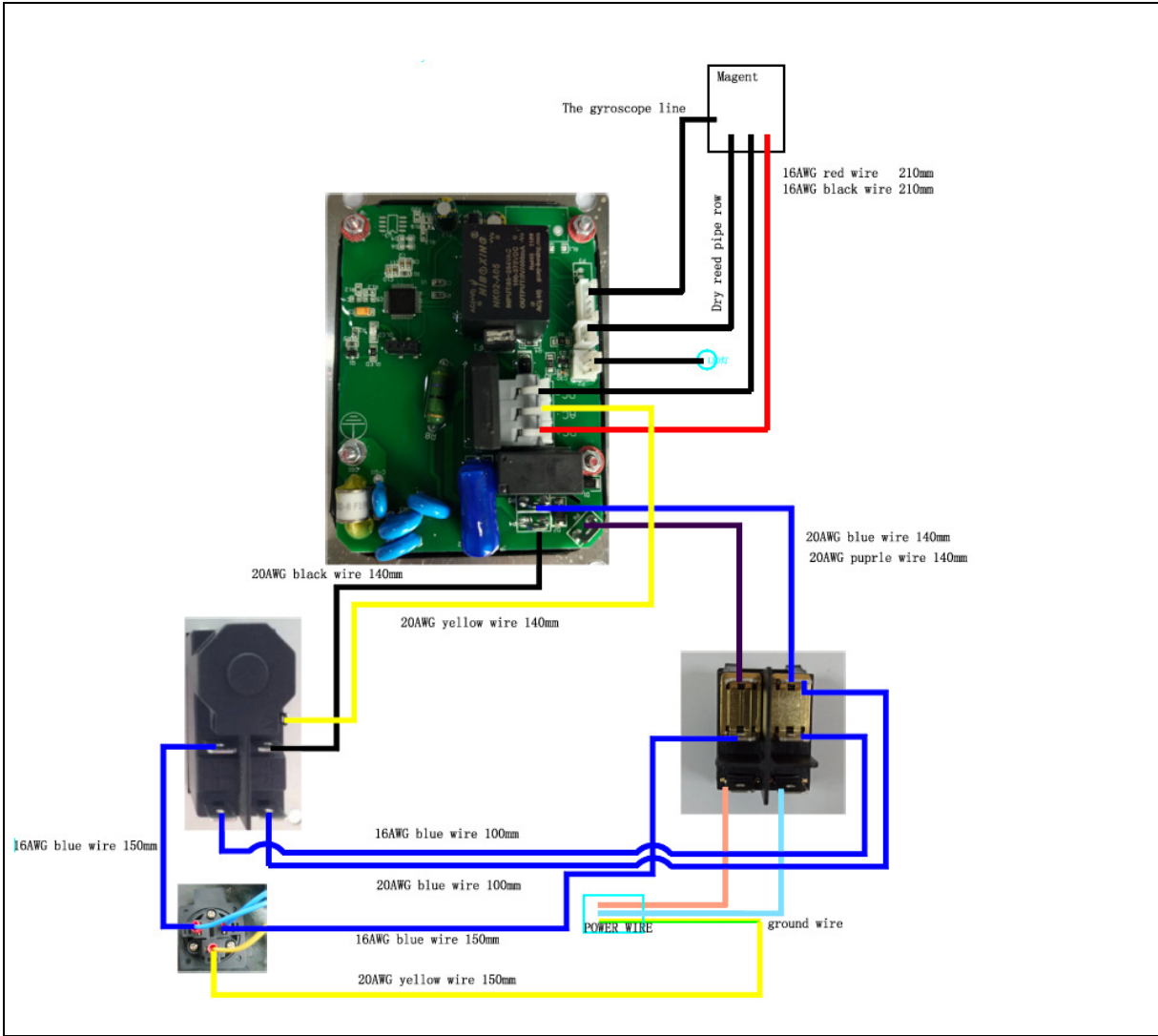
8. Exploded views & spare parts list

8.1 Exploded views





8.3 Wiring diagram



8.4 Warranty and service

Warranty

Euroboor B.V. warrants this magnetic drilling machine to be free of material defects and workmanship errors under normal use for a period of 12 months after date of purchase.

This 12 month period can be extended to 24 months in total by registering the product on our website: <https://euroboor.com/support/register/>

Service

To maximise the lifetime of your Euroboor machine always use service and parts from an official Euroboor distribution channel. Whenever in need of such, always contact original point of sales or if no longer existent the distributor of Euroboor products in your country.