

# Euroboor magnetic drilling machines



Our magnetic drilling machines are designed and engineered to the highest standards. With our many years of experience we dare to say that we know what you need. We stay in charge of today's and tomorrow's demands by being active in the field and remaining in close contact with the people that actually use our machines.

We develop, design, engineer and produce our magnetic drilling machines in-house.

We only use the best and most trustworthy suppliers or we roll up our sleeves and produce the required parts ourselves. The same applies for all our drills and cutters.

Every stage in the production process is subjected to stringent durability tests, and pre-shipment inspections are equally

meticulous. Only thus can we ensure you our core values: Efficiency, Focus, Quality, and Safety.

We pride ourselves on our line-up of magnetic drilling machines ranging from small scale fabrication to special purposes and designed to offer you the best possible options. Regardless of your company size, specialism or tasks at hand, you will find the perfect match at Euroboor.





# Safety features explained

## Magnet LED-indicator

The control panel on your magnetic drilling machine is designed for maximum ease of use and safety. Here you can find the magnet LED-indicator. There are two options:



The LED-indicator lights up **GREEN** when the generated magnetic force is sufficient. You can now safely start your drilling job.

The LED-indicator lights up **RED** when the generated magnetic force is insufficient due to:

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

If resolving the above doesn't help, the magnet doesn't function properly. Don't start your drilling job, but have your machine checked and serviced.

## Gyro-Tec safety

**Gyro-Tec** safety features a gyroscopic sensor which detects acceleration and displacement in any direction. The **Gyro-Tec** safety feature engages three seconds after the motor is started. Whenever the machine recognises a sudden or unwanted movement the motor will be shut down automatically by the machine's electronics. This safety functionality offers extra protection 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 magnetic drilling machine is attached

By the motor shutting down automatically, risk of damaging or hurting the machine, tools, workpiece and operator is reduced.

## Integrated motor cable

The frame of your magnetic drilling machine is designed for maximum safety and comfort. It is provided with an ergonomic handle and part of the machines in our portfolio have an integrated motor cable. The machines with integrated cable offer increased safety as the cable is completely incorporated in the frame. This prevents the user from getting caught in the cable and the cable from tearing or snapping off. It also prevents a lot of unnecessary repairs and therefore additional costs because the user can no longer lift and carry the machine by the motor cable, which often happens in practice.



## 2-way magnet

The 2-way magnet saves energy when the machine is not being used. The machine sticks sufficiently at half the magnetic force, this ensures you use less energy. The magnet generates less heat which makes the lifespan of the machine is longer. Only with full magnetic force the machine can be used for drilling.

# Power protection


The power protection feature is two-fold; it consists of both power fluctuation protection and power surge protection. Special safety components built into the electronics of the machine make it more reliable in situations where power supply can be of varying quality due to factors:

- Around the workplace, for example caused by switching on high power or unreliable electrical devices, a broken circuit breaker or faulty wiring
- Outside the workplace, for example caused by an instable power grid or lightning


A machine with this feature is able to cope with standard rated voltage and frequency fluctuations ranging from:

- 110 Volt to 130 Volt and 45 Hz to 65 Hz, or
- 220 Volt to 240 Volt and 45 Hz to 65 Hz reducing the probability of breakdown and minimizing down-time and repair cost.


### Power fluctuation protection

 When the frequency is too high (above 65 Hz) or too low (below 45 Hz), the motor will not start. If the frequency of the power supply falls outside the range during your drilling job, the motor will shut off automatically. The machine will work again normally when the normal frequency has been restored.\*


### Power surge protection

 Beyond the rated voltage, a machine with this feature is able to cope with voltage spikes up to 4,000 Volt (1-2µs)\*, which could be caused by nearby welding activities. Depending on the height of the spike, it may be necessary to replace built-in fuses, the control unit or the power switch, but other valuable parts like the motor and magnet will be protected.


### Overload protection

 To ensure safe use and longer lifetime of the motor the machine profits by overload protection. While you are using the machine there are different types of load levels, which correlate with the feed pressure. Once you go from close to overload to exceeding the overload limit the machine will automatically stop the motor.

### Smart Restart

 When the motor is in overload, the **Smart Restart** torque control technology ensures trouble-free continuation of your drilling job. When the feed pressure is reduced, the machine's electronics recognise the reduction and the motor continues within a few seconds.

### Overheat protection

 To prevent damage, machines with this feature are equipped with a sensor which will shut off the motor automatically when the temperature of the field coil exceeds 95° C.


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




# Carbon brushes

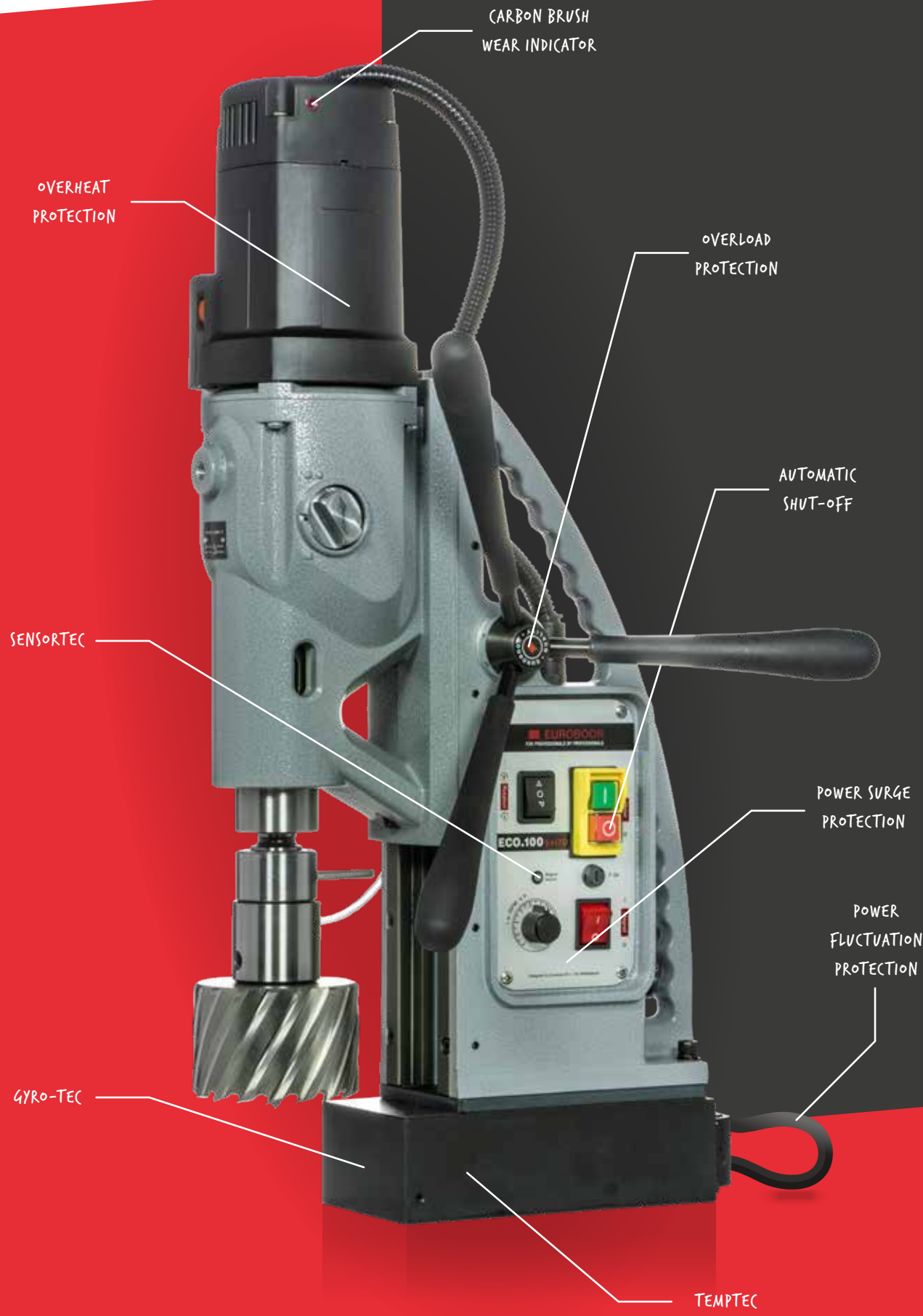
The carbon brushes on the magnetic drilling machine are equipped with two protective features. The purpose of both features is to schedule timely service and avoid additional costs by unexpected downtime or unnecessary part replacement.

### Carbon brush wear indicator

 On the motor housing you will find an integrated LED light. Under normal circumstances this light is off. The LED light will start burning **RED** when the carbon brushes are worn to a level where it is advised to replace them.

### Automatic shut-off

 When the carbon brushes are actually worn to a level where replacement is needed, the motor will be shut-off automatically. This prevents the armature from being damaged. Once shut off, the LED-indicator is no longer lit.



CARBON BRUSH WEAR INDICATOR

OVERHEAT PROTECTION

OVERLOAD PROTECTION

AUTOMATIC SHUT-OFF

SENSORTEC

POWER SURGE PROTECTION

POWER FLUCTUATION PROTECTION

GYRO-TEC

TEMPTec