

Operation

Activating/deactivating magnetic clamp

Activating magnetic clamp



CAUTION

- ▶ Switch on the magnetic clamp only when the machine is standing on a magnetic substrate to avoid overheating of the magnet.

- ◆ Turn on switch (22). The indicator light in switch (22) comes on.
- ◆ Check the magnet clamping force at the magnet indicator (24). When the magnet clamping force is sufficient, the MAGNET POWER indicator light (24) is green. If the MAGNET POWER indicator light (24) is red, there is not sufficient magnet clamping force available.

CAUTION

- ▶ The maximum magnet clamping force is only available after switching on the motor.

Deactivating magnetic clamp



- ◆ Secure the machine at the handle to prevent the machine from slipping off the surface.
- ◆ Turn off switch (22). The indicator light in switch (22) goes out.

Switching machine ON/OFF



- ◆ Turn the machine ON at the ON/OFF switch (21) with the green button (I) and OFF with the red button (O).

NOTE

- ▶ The machine can only be switched on when the magnetic clamp has been switched on.
- ▶ Allow a severely overheated machine to run on at no-load speed for approx. 2 minutes to let it cool down.
- ▶ The machine switches off automatically in the event of a power failure or if the magnetic clamp is switched off.

Selecting the speed range

CAUTION

- Switch over the gear stages only with the machine at standstill.

The machine has a gearbox with two mechanical gear stages:

Gear stage 1: Load speed 250 rpm

Gear stage 2: Load speed 450 rpm

- ◆ To select the desired gear stage, set selector lever (5) to stage 1 or 2 with the machine switched off.

NOTE

- Select the speed range according to the material and drilling diameter.

Setting the speed

In addition to the mechanical gearbox, the machine also has full-wave control electronics with which the speed can be infinitely varied.

- ◆ First set the appropriate gear stage, then adapt the speed using the electronic speed control (7).

Gear stage 1: 50 - 250 rpm

Gear stage 2: 100 - 450 rpm

NOTE

- If possible, always select a setting with low gear stage and high motor speed. The motor is thus set to high torque and protected against overheating under heavy load.

Drilling with the machine

Drilling with twist drills

Proceed as follows when drilling with twist drills:

- ◆ Push twist drills with MK taper from below into the morse taper (3) of the machine.
- ◆ Push twist drills with straight shank into the drill chuck after fitting the drill chuck (H).
- ◆ Position the machine at the working location, align it and switch on the magnetic clamps.
- ◆ Select the appropriate speed and switch on the machine.

NOTE

Observe the following instructions when drilling with twist drills:

- ▶ Under high pressure, the drill can glow out and the machine can be overloaded.
- ▶ When working overhead, use the high-performance grease spray ZHS 400. Spray the drill with grease spray before drilling. Repeat the procedure when drilling deep holes.
- ▶ Pay attention to a regular chip discharge. With larger drilling depths, the chip may break.

Drilling with core drills

Proceed as follows when drilling with core drills:

- ◆ Install the quick-change drill chuck system (A) and connect up the cooling lubricant system.
- ◆ Install the appropriate ejector pin in the core drill and insert the core drill into the quick-change drill chuck system (A).
- ◆ Position the machine at the working location, align it and switch on the magnetic clamps.
- ◆ Select the appropriate speed and switch on the machine.

NOTE

Observe the following instructions when drilling with core drills:

- ▶ Drilling with core drills requires no great effort. The drilling process is not accelerated by higher pressure. The drill wears faster and the machine can be overloaded.
- ▶ Use the cooling lubricant system installed on the machine with high-performance cutting oil from CS Unitec.
- ▶ The cooling lubricant system cannot be used when working overhead. In this case use the high-performance grease spray ZHS 400. Spray the drill on the inside and outside before drilling. Repeat this procedure when drilling deeper holes.
- ▶ Pay attention to a regular chip discharge. With larger drilling depths, the chip may break.

Thread cutting

The machine is equipped with a reversible direction of rotation and can also be used for cutting threads.

Proceed as follows for cutting threads:

- ◆ Drill the hole for the thread.
- ◆ Switch off the machine and select the lowest gear stage and speed.
- ◆ Set the direction of rotation to clockwise (right = R) at switch (23).
- ◆ Chuck the thread tap in the machine using the appropriate drill tap adapter.
- ◆ Switch on the machine and set the thread tap onto the drilled hole.
- ◆ Guide the machine slide down at hand lever (11) without exerting pressure until the desired thread length has been cut.
- ◆ Switch off the machine and set the direction of rotation to anti-clockwise (left = L) at switch (23).
- ◆ Switch on the machine again and allow the thread tap to come completely out of the workpiece. Then guide the machine slide upwards at hand lever (11) to avoid damaging the start of the thread.

Reaming/counter-sinking

Thanks to its wide range of operating speeds, the machine can also be used for reaming or counter-sinking.

CAUTION

- Observe the limits of the tools to be used for reaming and counter-sinking given in the technical data.