

Start-Up and Operating Procedure for Golz HD160 Hydraulic Core Drilling Motor

Step 1 – Attach Diamond Drill and accessories.



Using the correct spanners – 41mm for the fitting on the diamond core and 27mm to hold the motor outlet steady, attach the Diamond Core Drill accessory **before** connecting HD160 drill motor to the power pack.

Attaching and removing diamond cores while the motor is disconnected from the power pack eliminates the possibility of the HD160 accidentally and unexpectedly starting up and causing injury.

Step 2 – Connect hydraulic and water hoses.



Hydraulic Hose Couplings – Ensure couplings are clean and undamaged. Dust and debris on the face of the couplings can be transferred into the hose and prevent the couplings from connecting properly.

Water Connection. Connect water supply with quick coupling. Pump water bottle handle to pressurise water bottle. Flow can be controlled by thumb turn tap on motor's water connector.

Water must be used to reduce dangerous silica dust. Water increases cutting speed and also prevents the core drill from snagging or becoming stuck in the cut. After drilling, removing the cut core from the drill barrel is also far easier when water has been used.

Step 3 – Switch on Power Pack with on-off flow valve in off position



When hydraulic hoses are connected, start the power pack with the on-off valve lever in the off (or idle) position. This avoids over pressurising the system which can cause the drill motor to detect too much pressure and activate the safety clutch.

Then as the power pack is idling, turn lever to the on position increasing the pressure to the required 20 LPM minimum.

Leave pack running for 2-3 minutes before beginning to drill. This allows the hydraulic oil to reach the correct viscosity and temperature (ideally between 40-60°C.) The oil will also have the chance to fill the core drill motor, ensuring maximum efficiency.

Step 4 – Adopt a Safe comfortable and well balanced Drilling Position



Release then re-apply trigger

To release safety clutch

Adopt a stable, balanced position which enables you to have complete control of the machine without losing balance. The side handle must be used at all times to enable the safety clutch, stabilise the motor and reduce operator strain.

The HD160 has a mechanical clutch. This is the safest method of stopping a stuck or snagged core drill motor before an injury can occur. **Start the drill motor by SLOWLY pulling the trigger. It must be pulled slowly (count 1,2,3 as you pull it).**

If the drill appears to be working but is drilling slowly and stops often, it is in safety mode. This is released to full speed only after the trigger is primed by SLOWLY pulling it. **The drill motor has a trigger you use as a clutch – not a switch.**

The drill has a mechanical safety clutch that activates when the drill senses a build-up of pressure. Pulling the trigger too fast like a switch replicates a surge in pressure and the drill motor will go into safety mode – until you re-set the trigger.

If the HD160 slows or stops in the cut the safety clutch will not allow the motor to start or regain speed until the trigger is manually released and then re-started. **To Re-start if the drill stops in the cut, you must always re-set the trigger (count 1,2,3 as you pull it.)** The machine will appear to be working but will only be on ½ power until it is manually re-set.

These features make the drill different to use to the click and go types they are familiar with. But the Golz HD160 is much safer as the safety clutch protects the operator.

Allow the Drill motor to reach full speed before starting or entering the cut. Only enter and exit the cut at full speed to avoid the drill bit bouncing in the cut and potentially causing injury or damage.

Only put enough pressure on the drill motor to keep the diamond drill in contact with the material – do not force the drill. Diamond cores cut by grinding so extra force will not make them grind faster. It just puts more strain on the operator, accessory and machine.

Step 5 – After drilling procedure



When drilling is complete, turn the power pack on-off valve to off or idle position for approximately 20 seconds before turning power pack off completely. This allows the power pack, hoses and drill motor to equalize their pressure. If the pack is suddenly turned off a build-up of pressure in the valves may make re-attaching hydraulic couplings difficult.

Turn off power pack engine completely, then detach the HD160 from the power pack hydraulic hoses. Now it is safe to remove the diamond core accessory from the motor to avoid damage during transit.

Check all accessories are in good condition for future use.

It is good practice to connect the male and female hydraulic couplings on the power pack together after use. This prevents dirt and dust ingress and makes it easier to connect them to the drill motor later. Cold and hot weather can change the pressure inside the drill hoses between use and potentially make it difficult to re-attach the couplings.